COLLEGE OF
LIBERAL ARTS AND SCIENCES
CATALOG

APRIL 2023

ABOUT EXCELSIOR UNIVERSITY

Excelsior University is an accredited, nonprofit distance learning institution founded in 1971 focused on providing educational opportunity to adult learners. Excelsior contributes to the development of a diverse, educated society by valuing lifelong learning with an emphasis on serving individuals who are historically underrepresented by higher education. Excelsior meets students where they are—academically and geographically—removing obstacles to the educational goals of adult learners through affordable access to quality instruction and the assessment of learning. Our pillars include innovation, flexibility, academic excellence, and integrity.

Excelsior University is committed to providing a learning and working environment that is free from illegal discrimination based upon an individual's race, ethnicity, national origin, age, religion, marital status, familial status, gender, gender identity, sexual orientation, physical or mental disability, genetic information, or military or veteran status. Illegal discrimination in any form will not be tolerated at Excelsior University.

Excelsior University is a Title IV-eligible institution offering federal student aid to students who qualify in course-based programs. Stand-alone exam-based options are not eligible.

OUR MISSION

Excelsior University provides educational opportunity to adult learners with an emphasis on those historically underrepresented in higher education. Excelsior meets students where they are—academically and geographically, offering quality instruction and the assessment of learning.

VISION

Excelsior University provides access to quality higher education through innovative online learning, exceptional student experience, and innovation to be a model for addressing societal and workforce needs.

ACCREDITATION

Excelsior University (and under its former names, Excelsior College and Regents College) has been continuously accredited since 1977 by the Middle States Commission on Higher Education, 1007 North Orange Street, 4th Floor, MB #166, Wilmington, DE 19801 (267-284-5011), msche.org. The MSCHE is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation (CHEA).

New York State Board of Regents—Recognized Programmatic Accreditation: Excelsior University's nursing programs are programmatically accredited by the New York State (NYS) Board of Regents, State Education Department Office of the Professions (the Regents). The U.S. Department of Education has recognized the Regents as a state agency for the approval of nursing education programs since 1969.

More information about the NYS Board of Regents' Recognized Programmatic Accreditation may be helpful for students or graduates to present to a school they are attending or to an employer seeking more information about their Excelsior University nursing degree.

The RN to BS in Nursing, RN to MS in Nursing dual degree programs, and master's nursing programs at Excelsior University are accredited by the:

The Accreditation Commission for
Education in Nursing (ACEN)
3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326
PH: 404-975-5000

These programs include Bachelor of Science in Nursing, Master of Science in Nursing Leadership and Administration of Health Care Systems, Master of Science in Nursing Education, Master of Science in Nursing Informatics, RN to Master of Science in Nursing Leadership and Administration of Health Care Systems, RN to Master of Science in Nursing Education, and RN to Master of Science in Nursing Informatics.

The most recent accreditation decision made by the ACEN Board of Commissioners for the bachelor's nursing program in March 2019 is Continuing Accreditation.

View the public information disclosed by the ACEN regarding these programs at www.acenursing.us/accreditedprograms/programSearch.htm

The ACEN is a specialized accrediting agency for nursing recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation (CHEA).

The Bachelor of Science in Electrical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org. The Bachelor of Science in Nuclear Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org. The Bachelor of Science in Information Technology is accredited by the Computing Accreditation Commission of ABET, abet.org.

Excelsior University has received specialized accreditation for its business programs through the International Accreditation Council for Business Education (IACBE), located at 11960 Quivira Road in Overland Park, Kansas, USA. For a list of accredited programs, view the IACBE member status page.

All Excelsior University academic programs are registered (i.e., approved) by the New York State Education Department.

RECOGNITION

The National Security Agency and the Department of Homeland Security designated Excelsior University as a National Center of Academic Excellence in Cyber Defense Education, 2019–2024.

Excelsior University has achieved institutional-level recognition for implementing Quality Matters™ standards for the design of online courses. Excelsior systematically develops and evaluates its online courses based on rigorous, research-based Quality Matters™ standards to ensure learner engagement and provide tools and information for successful learning.

Message from the Executive Dean

Scott V. Dolan, PhD

Dear Student,

It is with great joy and enthusiasm that I offer you a warm welcome to the College of Liberal Arts and Sciences. We are truly honored that you chose to pursue your degree at Excelsior University. Whether you are returning to school after some time away or continuing immediately after the completion of an undergraduate degree, the choice to pursue a university education is an important step in your lives and a significant investment of your time and effort, and one that can pay incredible dividends personally and professionally. Please know that as a school, we care deeply about your success, and we are committed to supporting your personal development, as well as your academic and career goals.

Your choice of Excelsior University comes with a promise from us: to provide you with a high-quality, rigorous academic experience that prepares you for the careers of the future and to be leaders in your communities. Our market-oriented programs will enable you to explore your field of study—whether it be in business, technology, or the liberal arts. But more even more importantly, we want to challenge you to think more deeply about the intersection among these disciplines, and how you can work collaboratively and innovatively to seek solutions to the most significant issues of the day. As learners in our courses, you will engage with our expert, collaborative, and caring faculty, who bring their industry expertise and use our technology-enabled platforms to prepare you to be future ready. No matter what, during your time with us, know that our biggest joy is seeing the success of our students.

By choosing Excelsior University, you have placed great trust in us, and it is our honor to support you meeting your goals. Please know that along every step of your journey, the faculty and staff within the College of Liberal Arts and Sciences are here to support you. Please don't hesitate you reach out to us for guidance, support, or just to say hello.

Once again, thank you so much for entrusting us with your education, and best of luck on your success.

Sincerely,

Scott V. Dolan, PhD
Executive Dean, College of Liberal Arts and Sciences

LIMITATIONS

Information in this catalog is current as of April 2023, and is subject to change without advance notice.

CHANGES IN UNIVERSITY POLICIES, PROCEDURES, AND REQUIREMENTS

Excelsior University reserves the right to modify or revise the admission requirements of any program; degree and graduation requirements; examinations, courses, tuition, and fees; and other academic policies, procedures, and requirements. Generally, program modifications and revisions will not apply to currently matriculated students so long as they actively pursue their degree requirements. However, in the event that it is necessary to make program changes for matriculated students, every effort will be made to give notice. It is also the responsibility of students to keep themselves informed of the content of all notices concerning such changes.

Excelsior University maintains a drug-free workplace and is a drug-free school, as provided by the Federal Drug-Free Schools and Communities Act Amendments of 1989 and the Drug-Free Workplace Act of 1988.

Excelsior University is committed to providing a learning and working environment that is free from illegal discrimination based upon an individual's race, ethnicity, national origin, age, religion, marital status, familial status, gender, gender identity, sexual orientation, physical or mental disability, genetic information, or military or veteran status. Illegal discrimination in any form will not be tolerated at Excelsior University.

Campus Crime Statistics can be found at the following website: ope.ed.gov/security.

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MISSION STATEMENT

The College of Liberal Arts and Sciences
develops students to be leaders and
succeed in careers of the future
and within their communities
by providing high-quality, experiential, and
market-oriented academic learning opportunities
enabled by technology, delivered by expert, collaborative,
and caring faculty, and supportive of
students' lifelong success.

COLLEGE OF LIBERAL ARTS AND SCIENCES
UNDERGRADUATE DEGREE SECTION

GENERAL EDUCATION AT EXCELSIOR UNIVERSITY

To best prepare you in your career and life, Excelsior University has developed General Education Career Competencies (GECCs) based on findings from employer-based research. These competencies are the foundation of our curricula. You will encounter these competencies by meeting the requirements for general education and your program of study.

Excelsior University's approach to general education aims to prepare students to engage with complexity and change, to be productive, open-minded, and intellectually curious members of their communities and workplaces, and to develop a love of lifelong learning. Excelsior's general education program consists of two interrelated features:

1. a set of seven general education career competency areas threaded throughout the entire curriculum, and
2. a standardized credit distribution requirement that ensures breadth across the arts and sciences, including the humanities, social sciences/history, and natural sciences/mathematics, as well as basic skills in writing and information literacy.

General Education Career Competencies for All Undergraduate Degree Programs

GENERAL EDUCATION AREA	CAREER COMPETENCIES	ACHIEVED THROUGH
1) Oral and Written Communication	1.1) Present oral communication with appropriate content, organization, and delivery for the audience and purpose.	Achieved through the Cornerstone and Capstone requirements.
	1.2) Deliver written communication with appropriate content, organization, syntax, mechanics, and style for the audience and purpose.	Achieved through the Written English (WER) requirements.
2) Mathematical and Scientific Problem Solving	2.1) Apply scientific knowledge and reasoning to make evidence-based decisions.	Achieved through the Natural Science requirement.
	2.2) Apply mathematical concepts and reasoning to solve problems that involve quantitative information.	Achieved through the Mathematics requirement.
3) Information Literacy	3.1) Locate and evaluate sources to meet an information need.	Achieved through the Information Literacy requirement.
	3.2) Cite sources using appropriate academic conventions.	
4) Cultural Diversity and Expression	4.1) Analyze human thought, creative expression, or cultural representations within their contexts.	Achieved through the Humanities distribution requirement.
	4.2) Explain the dynamics of social identity or cultural differences within interpersonal and societal relations.	
5) Global Understanding	5.1) Explain how social, political, economic, or cultural forces shape relations between individuals and groups around the world.	Achieved through the Social Science/History distribution requirement.

6) Ethical Reasoning	**6.1)** Explain different ethical positions in relation to a problem or issue.	Achieved through the Ethics requirement. Must be completed with a minimum grade of C.
7) Professional Presence and Self-Awareness	**7.1)** Develop a career planning strategy that incorporates your strengths, interests, abilities, and values. **7.2)** Explain the norms and conventions of the workplace for a career field.	Achieved through the Cornerstone and Capstone requirements.

For more information on general education goals and outcomes, visit https://www.excelsior.edu/about/general-education-career-competencies.

Requirements for All Undergraduate Degree Programs

All undergraduate students must meet requirements in the following areas:

▶ **Humanities**
▶ **Social Sciences and History**
▶ **Natural Sciences and Mathematics**
▶ **Written English**
▶ **Information Literacy**

Students will also need to complete a Cornerstone course at the beginning of their program and a Capstone course at the end of their program.

For specific information about credit hour requirements in these areas for associate degrees and bachelor's degrees, see page 16 and page 34 of this catalog.

Some degree programs require specific courses within the areas listed above. Your academic advisor will work closely with you to plan how you will meet the requirements of your degree program.

For additional details about meeting general education and distribution requirements, refer to the Student Policy section of the Excelsior University website.

Cornerstone Course

Students can satisfy the Cornerstone requirement by taking either **IND 101 Cornerstone A: Foundations course** or **IND 301 Cornerstone B: Pathways course.** The purpose of the Cornerstone course is to provide students with the foundational skills and resources for academic and career success, and assure a "smart start" to the Excelsior University academic experience, Excelsior has implemented a Cornerstone course requirement. All students who enroll in an undergraduate degree program will be required to complete a Cornerstone course with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

The Cornerstone cannot be completed in the same term as the Capstone course.

Humanities

The humanities focus on the reflection and interpretation of the human experience. Through the development of knowledge and skills in critical thinking and problem solving, and aesthetic appreciation, these courses examine the human environment with particular attention to diverse heritage, traditions and cultures.

To meet the humanities distribution requirement, students must successfully complete a

specified number of courses or examinations within such disciplines as art, music, literature, philosophy, religion, speech, or communication. Courses or examinations used to satisfy the written English requirement and lower-level applied, technical or professional writing courses may not be applied toward the humanities core requirement.

A minimum grade of C is required for courses intended to meet core requirements. A minimum grade of D is required for Excelsior University courses not intended to meet core requirements. A minimum grade of C is required for courses transferred from other sources.

Social Sciences and History

The social sciences and history involve the study of individuals and societies and the processes individuals use to order and understand their world. The social sciences focus on theories that explain verifiable phenomena of individual and group human behavior, using the scientific method. History is the systematic study of people and events in the past.

To meet the social science and history distribution requirement, students must successfully complete a specified number of courses or examinations within such disciplines as anthropology, criminal justice (theory-based, not applied criminal justice), economics, geography, government, history, political science, psychology, and sociology.

A minimum grade of C is required for courses intended to meet core requirements. A minimum grade of D is required for Excelsior University courses not intended to meet core requirements. A minimum grade of C is required for courses transferred from other sources.

Natural Sciences and Mathematics

The natural sciences and mathematics are those branches of science that examine the natural world through scientific methods using quantitative data. There are five major branches of the natural sciences: astronomy, biology, chemistry, earth science, and physics.

To meet the natural sciences distribution requirement, student must successfully complete a specified number of courses or examinations in a science discipline (e.g., biology, chemistry, physics). Courses in applied science will not apply toward the core requirement.

Mathematics is the study of patterns, often relating to quantity, space, and change within a foundation of logic. Core branches of mathematics include, but are not limited to, algebra, geometry, analysis (which includes calculus) and applied mathematics (which includes probability and statistics).

To meet the math distribution requirement, students must successfully complete a specified number of courses or examinations in mathematics.

Mathematics courses must include computation or quantitative reasoning. There are some restrictions on courses that can be used to meet the mathematics requirement, such as:

▶ Arithmetic courses and courses that have been designated as developmental or remedial cannot be used to meet the mathematics requirement.

▶ No more than three courses of mathematics credit below the level of calculus may be applied to any degree. Representative titles of courses below the level of calculus include College Math, College Algebra, Elementary Functions, Modern Math, Fundamentals of Algebra, Trigonometry, and Precalculus.

▶ No more than one course or examination may be applied that is:

▶ terminal in nature with no prerequisites beyond the level of arithmetic;

▶ intended for students outside of science and mathematics;

▶ a mathematics appreciation course.

A minimum grade of C is required for courses intended to meet core requirements. A minimum grade of D is required for Excelsior University courses not intended to meet core requirements. A minimum grade of C is required for courses transferred from other sources.

Written English

To meet the Written English requirement, students are required to demonstrate competency in expository writing and English.

▶ Associate degree students are required to complete one expository writing course or examination (minimum 3 credit hours or 4 quarter hours) with a minimum of C grade. This must be completed within the first 13 Excelsior University credits attempted.

▶ Bachelor's degree students must complete two expository writing courses or examinations (minimum 6 credit hours or 8 quarter hour credits) with a minimum of C grade.

OR

▶ One expository writing course or examination (minimum 3 credit hours and one applied writing or disciplinary writing course (minimum three credit hours or four quarter hours). The expository writing course must be completed within the first 13 Excelsior University credits attempted.

The written English requirement may be met in several ways including:

1. **University coursework**
   Expository writing courses such as Excelsior University's **ENG 101 English Composition, ENG 101A Advanced Composition, ENG 102 Composition II, ENG 102A Advanced Composition II**

2. **Examination**
   Advanced Placement (AP) English Examinations (fulfills the requirement for the associate and bachelor's degrees)

Excelsior University does not accept the **CLEP General Examination in English Composition with Essay** toward this requirement.

3. **Statement of Equivalency**
   Submission of an official statement from a regionally accredited institution, from which transfer credit is being accepted, verifying satisfactory completion of the student's writing requirement. The statement must reflect whether the institution had a one-course or two-course writing requirement in effect at the time of the student's matriculation.

4. **Noncollegiate-sponsored instruction**
   Successful completion of a noncollegiate-sponsored instructional writing course or program that has been evaluated by either the NYS Board of Regents National College Credit Recommendation Service (formerly National PONSI) or the American Council on Education Center for Adult Learning and Educational Credentials (ACE CREDIT), and contains a recommendation of at least 3 semester-hour credits for the course; this course must contain an actual assessment of the student's competence in expository writing in English.

The non-collegiate learning experience must have been successfully completed during the time period for which credit was recommended by the National CCRS or ACE CREDIT.

A maximum of two semester courses or three quarter courses of credit in English composition/ freshman English courses will apply toward degree requirements. Courses or examinations used to fulfill the written English requirement may not be used to satisfy the humanities requirement.

Information Literacy

All students must meet the Excelsior information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted. Information literacy is the ability to find, evaluate, interpret, and use information legally, ethically, and effectively. This course introduces students to important knowledge and academic skills in the areas of technological and cyber literacy, the academic knowledge-creation process, library and internet research, source evaluation, reading and processing information, and writing with sources. It is aligned with Association of College and Research Libraries (ACRL) competency standards. It is a self-paced, 1-credit course designed to be taken early in a student's Excelsior experience.

The information-literate student will:

- ▶ be able to determine the nature and extent of the information needed.
- ▶ access needed information effectively and efficiently.
- ▶ evaluate information and its sources critically.
- ▶ incorporate selected information into their knowledge base and value system.
- ▶ understand many of the economic, legal, and social issues surrounding the use of information.
- ▶ access and use information ethically and legally.

Capstone

The Capstone course is designed to bring together the student's cumulative knowledge and skills to demonstrate mastery of the learning outcomes for the degree program. Through a mixture of discussions, presentations, and written analysis, students will apply their previous learning in new ways, both analyzing and synthesizing fresh perspectives on their learning.

A minimum grade of C is required in the Capstone course.

IMPORTANT INFORMATION FOR ALL STUDENTS

Student Policies

Excelsior University student policies are impotant to your academic success. They include important federal policies, including your right to privacy, to grading policies and policies and procedures concerning refunds, withdrawals, and other administrative issues.

It is your responsibility to be familiar with these policies. The term "students" includes those currently matriculated at Excelsior University taking examinations and/or courses, non-matriculated students taking examinations and/or courses, non-matriculated students in the application process, individuals using the OneTranscript® service (formerly Credit Bank), formerly matriculated students currently in withdrawn status, and graduates.

The student policies are posted at: https://www.excelsior.edu/policies/students/.

Total Credits

You must earn a minimum of 60–67 credits for an associate degree and 120–124 credits for a bachelor's degree. Credits must satisfy the requirements prescribed for each degree program. Some degrees may require additional credits. See page 14 and page 34 for general information about credit requirements for associate and bachelor's degrees.

Any examination or course used to fulfill major requirements must be worth at least two semester hours or three quarter hours of credit.

Minimum Academic Average

You must have a cumulative grade point average (GPA) of 2.0 or better to graduate. In addition, a 2.0 GPA or better is also required in the major component of the degree.

Time to Degree Completion

Excelsior's degree programs are designed to be completed at your own pace. However, a student attending full-time could complete:

▶ an associate degree in two years;
▶ a bachelor's degree in four years; or
▶ a master's degree in two years.

Students completing a non-Nursing undergraduate degree program have a time limit of seven years to completion with the exception of the degrees listed below (see the Nursing school catalog and Graduate school catalog for completion times for those degrees).

▶ Bachelor of Science in Electrical Engineering Technology, Undergraduate Studies: 10 years
▶ Bachelor of Science in Nuclear Engineering Technology, Undergraduate Studies: 10 years

Standardized Testing Participation

As an Excelsior University student, you have a responsibility to participate in standardized tests that may be required during the period of your enrollment. These tests may be in addition to regular coursework and are required to gather critical information on achievement of student learning. You are expected to actively participate and make every effort to do your best on these assessments. One example of this type of test is the Proficiency Profile published by the Educational Testing Service. The results from these assessments will not be part of your grade, but are crucial for program improvement and are frequently required by regulators and accreditors. Participation in these assessments contributes toward increasing the value of your degree by providing evidence of student learning to external organizations, employers, and the general public.

Excelsior University Website

Through the Excelsior website (excelsior.edu), you have access to a wealth of information to help you succeed as a student. If you haven't already done so, create a MyExcelsior user account. It will serve as your gateway to a variety of support services and is where you will find up-to-date information about your academic program and receive announcements from Excelsior.

Technology Literacy and Baseline Technology Skills and Resources

Excelsior University defines technology literacy as the ability to identify and responsibly use appropriate technology to communicate, solve problems, access, manage, integrate, evaluate, and create information to improve learning. This will facilitate the ability to acquire new knowledge for lifelong learning in the 21st-century global workplace.

To be successful in online learning, you will need reliable access to a computer with Internet connectivity and be able to use:

▶ a personal computer,

▶ software programs to create, edit, store and print documents,

▶ electronic communication tools, and search and retrieve information from electronic sources to complete assignments and activities,

▶ the Excelsior website to access information and resources, and

▶ the Excelsior learning management system to access learning resources, participate in course discussions, and complete assignments.

In addition, your computer and operating systems must meet some minimal technical requirements as described in the Excelsior University Computer System Requirements.

COLLEGE OF LIBERAL ARTS AND SCIENCES
ASSOCIATE DEGREE PROGRAMS

Degree area key

Business

BUS

Liberal Arts

LA

Public Service

PS

Technology

TECH

Refer to the **Excelsior University College of Nursing and Health Sciences Catalog** for programs in those areas.

Credit Requirements for
ASSOCIATE DEGREES

60–67
CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS	Credit Hours
IND 101 Cornerstone A: Foundations The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.	3
Written English Requirement	3
Ethics	3
Humanities	3
Social Sciences/History	6
Natural Sciences	2
Mathematics	2
Arts and Sciences Electives	9
INL 102 Information Literacy	1
Capstone The Capstone course must be taken at Excelsior University and cannot be transferred in.	3
Additional collegiate-level study Requirements vary by degree. Specific details can be found under each degree listing in this catalog.	23–30
TOTAL DEGREE CREDITS REQUIRED	**60–67**

This chart shows the credits required for overall degree requirements. Refer to a more detailed listing of degree requirements under the specific degree on the proceeding pages.

Credit Requirements Specific to the
ASSOCIATE IN APPLIED SCIENCE IN ADMINISTRATIVE/ MANAGEMENT STUDIES

60
CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS	Credit Hours
IND 101 Cornerstone A: Foundations The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.	3
Written English Requirement	3
Ethics	3
Social Sciences/History	3
Behavioral Sciences	3
Natural Sciences	3
Mathematics	3
Arts and Sciences Electives	2
Business Component	21
Electives	12
INL 102 Information Literacy	1
Capstone The Capstone course must be taken at Excelsior University and cannot be transferred in.	3
TOTAL DEGREE CREDITS REQUIRED	**60**

This chart shows the credits required specifically for the Associate in Applied Science in Administrative/Management Studies degree. Refer to for more details.

ASSOCIATE DEGREE PROGRAMS

Credit Requirements Specific to the
ASSOCIATE IN APPLIED SCIENCE IN TECHNICAL STUDIES

60
CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS	Credit Hours
IND 101 Cornerstone A: Foundations The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.	3
Written English Requirement	3
Ethics	3
TECH 230 Technology and Society	3
Behavioral Sciences	3
Natural Sciences	3
Mathematics	3
Arts and Sciences Electives	2
Career Component	24
Free Electives	9
INL 102 Information Literacy	1
Capstone The Capstone course must be taken at Excelsior University and cannot be transferred in.	3
TOTAL DEGREE CREDITS REQUIRED	**60**

This chart shows the credits required specifically for the Associate in Applied Science in Technical Studies degree. Refer to for more details.

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Associate in Applied Science in
ADMINISTRATIVE/ MANAGEMENT STUDIES

60 CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 15 for an overview of general education and distribution requirements for all associate degree programs.

IND 101 Cornerstone A: Foundations
The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

IND 203 Introduction to Professional Ethics

DEGREE-SPECIFIC REQUIREMENTS

Behavioral Sciences

BUSINESS COMPONENT

▶ BUS 222 Business Communication

▶ ACC 211 Financial Accounting

▶ ACC 212 Managerial Accounting

▶ BUS 230 Business Law

▶ BUS 231 Business Data Literacy

▶ Business Electives

BUS 299 Business Strategy (capstone)
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on page 14. Once you are enrolled, the **My Academic Planner** tool will specify how credits (transfer and remaining) apply.

Program Description

For the business student, Excelsior University offers a flexible program at the associate level. The program is designed for students seeking career advancement or looking to continue their studies in one of our bachelor's degree programs. This degree program comprises learning and professional skill development in the areas of business administration and/or management. The associate degree prepares students for high-growth industries, and individuals exploring careers in the following business administration areas will benefit from this degree program: personnel/office administration, recordkeeping, data entry, clerical, secretarial, word processing/typing, reception/front office administration, and customer/guest services. Moreover, individuals exploring careers in the following business management areas will benefit from this degree program: human resources/relations management, file/inventory management, personnel management, facilities/equipment management, and general management.

Graduates of the Associate in Applied Science in Administrative/Management Studies program who are interested in continuing to baccalaureate-level study should contact their advisor for advice in the preferred program of study. See chart on for a graphic representation of credit required for this degree program. A description of outcomes and specific degree requirements follows.

Program Outcomes

Upon successful completion of the Excelsior University Associate in Applied Science in Administrative/Management Studies program, the graduate will be able to:

1. Recognize key management concepts, theories, and practices within the field of business.
2. Apply good judgment and business ethical reasoning to problems and scenarios that commonly arise in business organizations.
3. Apply business theories and concepts to selected business problems.
4. Communicate clearly, appropriately, and persuasively to a business audience.
5. Utilize business computer applications and information technologies to organize and interpret business data and information.
6. Apply scientific reasoning and college-level mathematics to real-world business problems.

Degree Requirements

A minimum of 60 credits is required for the Associate in Applied Science in Administrative/Management Studies, distributed as follows:

▶ 20 credits minimum in the arts and sciences
▶ 24 credits minimum in the business component
▶ 16 credits of electives (4 credits to include **IND 101/301 Cornerstone** and **INL 102 Information Literacy**)

Arts and Sciences Component (20 credits)

Arts and sciences are those areas of study classified as humanities, social sciences/history, and natural sciences/mathematics. The Associate in Applied Science in Administrative/Management Studies requires a minimum of 20 credits in the arts and sciences distributed as follows:

▶ 6 credits in the humanities, including 3 credits in English Composition to fulfill the Excelsior University written English requirement [**ENG 101 English Composition**] and 3 credits in ethics [**IND 203 Introduction to Professional Ethics**], completed with a C or better;

- 6 credits in social sciences/history, including 3 credits in behavioral sciences;
- 6 credits in natural sciences/mathematics to include 3 credits in natural sciences and 3 credits in mathematics;
- 2 credits in any arts and sciences area.

Excess credits in arts and sciences or in the business component may be applied toward electives.

Humanities

At least 6 credits must be earned in humanities subjects — 3 of those 6 credits must be earned through completion of an examination or course used to satisfy the written English requirement, and must be completed with a grade of C or better (see page 9). The remaining 3 credits must be earned in ethics with a minimum grade of C.

Social Sciences/History

At least 6 credits must be earned in social sciences/history of which 3 must be in behavioral sciences.

Social sciences/history subjects include, but are not limited to, anthropology, sociology, government, political science, psychology, geography, history, and economics.

Natural Sciences and Mathematics

At least 6 credits must be earned in natural sciences/mathematics. A minimum of 3 credits in college-level math courses and a minimum of 3 credits in natural sciences may be applied toward degree requirements.

Natural sciences/mathematics subjects include, but are not limited to, anatomy and physiology, microbiology, chemistry, biology, genetics, zoology, physics, precalculus, intermediate algebra, geometry, trigonometry, finite mathematics, astronomy, geology, and oceanography.

Arts and Sciences Electives

A maximum of 2 credits may be applied in this area.

Business Component (24 credits)

The Associate in Applied Science in Administrative/Management Studies requires 24 credits in the Business Component to inlcude the following:

- **BUS 222 Business Communication**
- **ACC 211 Financial Accounting**
- **ACC 212 Managerial Accounting**
- **BUS 230 Business Law**
- **BUS 231 Business Data Literacy**
- Business Electives

BUS 299 Business Strategy (capstone) is the required capstone course included in the business component. The capstone must be completed with a grade of C or better.

Electives (16 credits)

Elective credit may be earned in any field of college study, including business and other professional, technical, or career areas, as well as in the arts and sciences. A maximum of two credits in physical education activity courses may be applied to the degree.

Additional Requirements (4 credits)

- INL 102 Information Literacy
- IND 101/301 Cornerstone course

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

Associate in Applied Science in
TECHNICAL STUDIES

60 CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 16 for an overview of general education and distribution requirements for all associate degree programs.

IND 101 Cornerstone A: Foundations
The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

IND 203 Introduction to Professional Ethics

DEGREE-SPECIFIC REQUIREMENTS

TECH 200 Technical Writing

TECH 230 Technology and Society

CAREER COMPONENT
- ▶ IT 221 Introduction to Computing
- ▶ EGR 210 Introduction to Engineering Analysis

TECHNOLOGY CONCENTRATIONS
- ▶ Computer Technologies
- ▶ Electromechanical Technologies
- ▶ Electronic/Instrumentation Technologies
- ▶ Nuclear Technologies/Power Plant Technologies

TECH 290 Integrated Technology Assessment (capstone)
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on page 16. Once you are enrolled, the My Academic Planner tool will specify how credits (transfer and remaining) apply.

Program Description

The Associate in Applied Science in Technical Studies (AAT) program focuses on preparing students to be employed as technicians in technology-related industries such as nuclear, energy, computer, electronics, and electrical. The Associate in Applied Science in Technical Studies is designed to meet the needs of students with a broad range of technical experiences and interests including those with military backgrounds that include college-level learning that takes place through military training. Specifically, the program has identified four technical concentrations that provide students with a broad professional and technical foundation in the various functional components of technology. The concentrations are a group of related college-level courses within a technical component that combine depth and breadth of study in a recognized math/science-based technology discipline. The goal of the degree program in specific concentrations is to foster the ability of students to apply what they have learned within the degree program to the real-world contexts of a technology-based industry.

The four concentrations are: **Computer Technologies, Electromechanical Technologies, Electronic/Instrumentation Technologies,** and **Nuclear Technologies/Power Plant Technologies.**

Student progress within the degree program is based on the demonstration of proficiency, and is attainable through multiple, flexible pathways — offering aggregation pathways to degree completion. In this way, the program is customizable and tailored to each student's need and learning style. Graduates of the Associate in Applied Science in Technical Studies program who are interested in continuing on to baccalaureate-level study should contact their advisor for advice on the preferred program of study. Refer to to review sample concentration area subjects and technical elective subjects.

Program (Student) Outcomes

Upon successful completion of the Excelsior University Associate in Applied Science in Technical Studies program, the graduate will be able to:

1. Demonstrate effective technical oral and written communication skills.
2. Demonstrate introductory college-level proficiency in one or more of the subject areas in mathematics and/or natural sciences.
3. Demonstrate introductory college-level proficiency in one of more of the social sciences.
4. Critically examine relationships between technology and society through cultural diversity and human behavior.
5. Apply technology and problem-solving skills in the concentration area.

Degree Requirements

The Associate in Applied Science in Technical Studies requires a minimum of 60 credits, distributed as follows:

► 24 credits minimum in the arts and sciences.
► 24 credits in the career component (to include **IT 221 Introduction to Computing, EGR 210 Introduction to Engineering Analysis,** and **TECH 290 Integrated Technology Assessment** and the technology concentration).
► Additional requirements (12 credits): **IND 101/301 Cornerstone** course (3 credits), **INL 102 Information Literacy** (1 credit), Technology electives (8 credits).

ASSOCIATE IN APPLIED SCIENCE IN TECHNICAL STUDIES

Arts and Sciences Component (24 credits)

Arts and sciences are those areas of study classified as humanities, social sciences/history, and natural sciences/mathematics. The Associate in Applied Science in Technical Studies requires a minimum of 20 credits in the arts and sciences, distributed as follows:

1. **Humanities**
   At least 6 credits must be earned in humanities. Three credits must come from a course that satisfies the written English requirement [**ENG 101 English Composition**], completed with a grade of C or better. (see page 9). The remaining three credits must be in Ethics [**IND 203 Introduction to Professional Ethics**] earned with a grade of C or better.

2. **Social Sciences/History**
   At least 6 credits must be earned in social sciences/history—a minimum of 3 credits in behavioral science and a minimum of 3 credits in technology and society, completed with a grade of C or better. [**TECH 230 Technology and Society**].

3. **Natural Sciences/Mathematics**
   A least 6 credits must be earned in natural sciences/mathematics—a minimum of 3 credits in college-level math and a minimum of 3 credits in natural sciences. Some sample natural science subjects and courses are biology, chemistry, physics, and geology. Some sample math subjects and courses are intermediate algebra, college algebra, trigonometry, and statistics.

4. **Arts and Sciences Electives**
   The remaining credits needed to satisfy the 24-credit requirement may be earned in any area of the arts and sciences.

Career Component (24 credits)

A minimum of 24 credits are required in the career component. The career component consists of 9 core component credits, and 15 concentration area credits. Credits applied to the Career Component require a grade of C or better.

Core Component (9 credits)

▶ Introduction to Computing
[**IT 221 Introduction to Computers**]

▶ Introduction to Engineering Analysis
[**EGR 210 Introduction to Engineering Analysis**]

▶ Integrated Technology Assessment
(required capstone course)
[**TECH 290 Integrated Technology Assessment**]

The TECH 290 capstone course is required and must be taken through Excelsior University. It cannot be transferred in.

Technology Concentrations (15 credits)

▶ Computer Technologies

▶ Electromechanical Technologies

▶ Electronic/Instrumentation Technologies

▶ Nuclear Technologies/Power Plant Technologies

Technical Electives (8 credits)

Only one programming course can apply toward the degree.

Additional Requirements (4 credits)

▶ **IND 101/301 Cornerstone Course**

▶ **INL 102 Information Literacy**

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

Concentrations

COMPUTER TECHNOLOGIES

A concentration in computer technologies focuses on training and preparing students to stay up-to-date with the rapidly changing computer technology environment. The computer technologies concentration is a technical discipline centered on the design, assembly, testing, and maintenance of computer circuitry and peripheral hardware. The concentration also emphasizes the design, development, operation, and troubleshooting of computer, database, and network systems. The computer technologies outcomes are geared toward providing students with a foundational knowledge of computer technologies in a wide variety of subject areas and preparing students for positions including circuit design engineer, hardware technician, software developer, database specialist, or network engineer.

Upon successful completion of the Excelsior University Associate in Applied Science in Technical Studies with a Computer Technologies concentration, the student will be able to:

1. Use electric circuits, analog and digital electronics, software applications, and operating systems to build, test, operate, and maintain computer systems and networks.

2. Install, update, and configure computer applications software.

Required Courses
- ▶ **IT 200 Hardware and Software Essentials**
- ▶ **IT 211 Fundamentals of Programming**
- ▶ **IT 250 Business Data Communication**
- ▶ **CYS 220 Cloud Computing and Virtualization**
- ▶ Computer Technologies elective

ELECTROMECHANICAL TECHNOLOGIES

A concentration in electromechanical technologies focuses on training and preparing the students with the knowledge and practical skills in mechanical technology along with electrical and electronic circuits. It is centered on design, assembly, testing, maintenance, and upgrading of electronic and computer-integrated mechanical components and systems, such as automated manufacturing tools and engineering service equipment. The electromechanical technologies' outcomes are geared toward providing students with fundamental as well as applied knowledge in automated, servo-mechanical, or electromechanical tools, equipment, and processes. These will prepare the students for positions in operating, repairing, and upgrading unmanned submarines, aircraft, robots, or such automated equipment.

Upon successful completion of the Excelsior University Associate in Applied Science in Technical Studies with an Electromechanical Technologies concentration, the student will be able to:

1. Use circuit analysis, analog and digital electronics, basic instrumentation, and computers to aid in the characterization, analysis, and troubleshooting of electromechanical systems.

2. Use mechanics, strength of materials, engineering materials, and manufacturing processes to aid in the characterization, analysis, and troubleshooting of electromechanical systems.

Required Courses
- ▶ TECH 185 Blueprint Reading
- ▶ TECH 225 Applied Instrumentation and Control
- ▶ TECH 233 Electrical Power Distribution
- ▶ EGR 280 Introduction to 3-D modeling
- ▶ Electromechanical Technologies elective

ELECTRONIC/ INSTRUMENTATION TECHNOLOGIES

A concentration in electronic/instrumentation technologies focuses on training and preparing the students with the knowledge and practical skills in electrical/electronic circuits and process instrumentation. It is centered on design, assembly, testing, maintenance, and upgrading of electrical and electronic components and systems used in analytical instruments and measurements, medical technology, communications, and industrial process control. The electronic/instrumentation technologies' outcomes are geared toward providing students with fundamental as well as applied knowledge in AC, DC, and digital circuits, microprocessors, and programmable controllers. These will prepare the students for positions in operating, repairing, and upgrading process instrumentation tools, equipment, and systems.

Upon successful completion of the Excelsior University Associate in Applied Science in Technical Studies with an Electronic/ Instrumentation Technologies concentration, the student will be able to:

1. Apply the concepts of automatic control, measurements, and sensor selection for the operation and testing of continuous and discrete systems.

2. Use electrical/electronic devices, computers, and instrumentation for the operation and troubleshooting of analog and digital communication systems.

Required Courses
- ▶ TECH 185 Blueprint Reading
- ▶ TECH 225 Applied Instrumentation and Control

- ▶ TECH 240 Job Task and Troubleshooting
- ▶ IT 250 Business Data Communication
- ▶ Electronic/Instrumentation Technologies elective

NUCLEAR TECHNOLOGIES / POWER PLANT TECHNOLOGIES

A concentration in nuclear technologies/power plant technologies focuses on preparing students for technician/operator positions in the nuclear industry. The nuclear technologies/power plant technologies concentration is a technical discipline centered on the design, materials, operations, and maintenance associated with radiation shielding, radiation detection instrumentation, and emergency planning for nuclear research and power generation facilities. The nuclear technologies/power plant technologies outcomes are geared toward providing students with a foundational knowledge of nuclear technologies/power plant technologies in support of technician/operator positions at nuclear facilities.

Upon successful completion of the Excelsior University Associate in Applied Science in Technical Studies with a Nuclear Technologies/Power Plant Technologies concentration, the student will be able to:

1. Apply the applicable regulations and the concepts of control performance, human interface, and quality assurance to the operation and maintenance of nuclear systems.

2. Demonstrate a proficiency in radiation protection procedures and regulations pertaining to the safe operation of nuclear systems.

3. Describe the key procedures in the recording and interpretation of measurements, start-up and shut-down of plant equipment and the maintenance of power plant systems.

4. Identify the key principles in the proper operation, testing, and troubleshooting of boilers, turbines, electric generators, pumps, and other auxiliary.

Required Courses

▶ **TECH 250 Renewable Energy Overview I: Solar and Geothermal**

▶ **TECH 251 Renewable Energy Overview II: Wind and Water**

▶ **TECH 260 Energy Industry Fundamentals**

▶ **NUC 210 Health Physics and Radiation Protection**

▶ **NUC 240 Atomic and Nuclear Physics**

Associate in Science in
CRIMINAL JUSTICE

60
CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 14 for an overview of general education and distribution requirements for all associate degree programs.

IND 101 Cornerstone A: Foundations
The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

Ethics

DEGREE-SPECIFIC REQUIREMENTS

CJ 101 Introduction to Criminal Justice

CJ 110 Introduction to Law Enforcement

CJ 120 Introduction to Corrections

CJ 228 Multicultural Issues in Criminal Justice

CJ 265 Criminal Procedure & Evidence

CJ 298 Criminal Justice Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on page 14. Once you are enrolled, the **My Academic Planner** tool will specify how credits (transfer and remaining) apply.

Program Description

An Associate in Science in Criminal Justice integrates the theories, history, and legal and ethical issues typically covered in the study of crime and the criminal justice system. It is recommended students also complete coursework outside the criminal justice major in psychology, sociology, and communications to place their knowledge of the field in a broader social context. Graduates with an associate degree in this field are positioned to join the ranks of many agencies that require only 60 college credits to begin work. This degree will prepare students to move into a bachelor's degree to further their studies in Criminal Justice.

The Associate in Science in Criminal Justice requires 18 credits minimum with at least a 2.0 GPA.

Program Outcomes

Students who complete the Associate in Science in Criminal Justice will be able to:

▶ Describe the various components of the criminal justice system-legislation law enforcement, judicial, and correctional.

▶ Describe how decision-making influences policy and procedure.

▶ Explain how ethics is used in the decision-making process of the criminal justice system.

▶ Analyze the various forms of diversity throughout the criminal justice system.

▶ Describe the various criminal justice career opportunities.

Core Requirements

A. **CJ 101 Introduction to Criminal Justice**

B. **CJ 110 Introduction to Law Enforcement**

C. **CJ 120 Introduction to Corrections**

D. **CJ 228 Multicultural Issues in Criminal Justice**

E. **CJ 265 Criminal Procedure and Evidence**

F. **CJ 298 Criminal Justice Capstone**
A grade of C or better required.

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

Associate in Science in
LIBERAL ARTS

60
CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 14 for an overview of general education and distribution requirements for all associate degree programs.

IND 101 Cornerstone A: Foundations
The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

Ethics

DEGREE-SPECIFIC REQUIREMENTS

LA 298 Associate Degree Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on page 14. Once you are enrolled, the **My Academic Planner** tool will specify how credits (transfer and remaining) apply.

Program Description

The Associate in Science in Liberal Arts is an entry-level liberal arts program in which up to half of the credits can be applied professional. For students, whose interests and goals include the traditional arts and sciences realms of humanities, social sciences, history, natural sciences, and/or mathematics, or who seek to complete an associate's degree for job qualification or promotion and intend eventually to go on to the baccalaureate level, the Associate in Liberal Arts degree may be more appropriate than a structured pre-professional degree in a specific discipline. The requirements for the General Education component of any Excelsior University degree fit the plan of the Associate in Science in Liberal Arts, and all credits are transferable to the Bachelor of Science in Liberal Arts.

Program Outcomes

1. **Critical Thinking**
   Effectively communicate orally and in writing to a targeted audience.
2. **Communication**
   Identify issues of cultural diversity and how they impact different global communities.
3. **Diversity**
   Integrate information from diverse sources to solve problems and achieve goals.
4. **Ethics**
   Research an ethical dilemma and articulate findings from multiple perspectives.
5. **Strategies**
   Identify strategies for continuing education within a chosen professional career.

Degree Requirements

The Associate in Science requires a total of **60 credits,** distributed as follows:

▶ 30 credits minimum in the arts and sciences

▶ 30 credits minimum in applied professional and/or additional arts and sciences credit

Refer to the chart on for a graphic representation of the minimum credits necessary along with the credit distribution requirements for this degree program.

Arts and Sciences Component (30 credits)

Arts and sciences are those areas of study classified as humanities, social sciences/history, and natural sciences/mathematics. The Associate in Science requires a minimum of 30 credits in the arts and sciences distributed as follows:

A. **Written English Requirement: 3 credits**
   (minimum grade of C required)

B. **General Education Requirement:**
   18-credit minimum of which 6 credits are required in each of the three distribution areas: humanities, social sciences/history, and natural sciences/mathematics. Within the natural sciences/math distribution, at least 2 credits must be earned in college-level mathematics and 2 credits in the natural sciences. The humanities distribution must include at least 2 credits in ethics with a minimum grade of C, and at least one 3-credit course in a humanities discipline (see for details).

C. **Arts and Sciences Electives: 6 credits**

D. **Associate Degree Capstone: 3 credits**
   (minimum grade of C required)

ASSOCIATE OF SCIENCE IN LIBERAL ARTS

Other Requirements (30 credits)

- ▶ **INL 102 Information Literacy**
  1 credit
- ▶ **IND 101 Cornerstone A: Foundations (cornerstone course):** 3 credits
  The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.
- ▶ **Applied Professional and/or Additional Arts and Sciences Credits:** 29 credits

Information Literacy

All student must meet the college's information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the college's Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the college's Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

COLLEGE OF LIBERAL ARTS AND SCIENCES
BACHELOR'S DEGREE PROGRAMS

Degree area key

Business	Liberal Arts	Public Service	Technology
BUS	LA	PS	TECH

Refer to the **Excelsior University College of Nursing and Health Sciences Catalog** for programs in those areas.

Credit Requirements for
BACHELOR OF SCIENCE DEGREES

120–124 CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS	Credit Hours
IND 101 Cornerstone A: Foundations or IND 301 Cornerstone B: Pathways The cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.	3
Written English Requirement	6
Humanities Includes Ethics	9
Social Sciences/History	9
Natural Sciences	2
Mathematics	2
Natural Sciences or Mathematics	5
Additional Arts and Sciences	27
INL 102 Information Literacy	1
Capstone The Capstone course must be taken at Excelsior University and cannot be transferred in.	3
Additional collegiate-level study Requirements vary by degree. Specific details can be found under each degree listing in this catalog.	53–57
TOTAL DEGREE CREDITS REQUIRED	**120–124**

This chart shows the credits required for overall degree requirements. Refer to a more detailed listing of degree requirements under the specific degree on the proceeding pages.

Credit Requirements Specific to the
BACHELOR OF
PROFESSIONAL STUDIES

<div>120 CREDITS</div>

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS	Credit Hours
IND 101 Cornerstone A: Foundations or IND 301 Cornerstone B: Pathways The cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.	3
Written English Requirement	6
Ethics	3
Humanities	6
Social Sciences/History	6
Natural Sciences	3
Mathematics	6
Professional Component	42
Elective	41
INL 102 Information Literacy	1
Capstone The Capstone course must be taken at Excelsior University and cannot be transferred in.	3
TOTAL DEGREE CREDITS REQUIRED	120

This chart shows the credits required specifically for the Bachelor of Professional Studies degrees.

Bachelor of Professional Studies in
BUSINESS AND MANAGEMENT

120 CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 35 for an overview of general education and distribution requirements
for all bachelor's degree programs.

IND 101 Cornerstone A: Foundations or **IND 301 Cornerstone B: Pathways**
The cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

DEGREE-SPECIFIC REQUIREMENTS

BUS 231 Business Data Literacy

BUS 323 Business Ethics

BUS 490 Integrated Business and Management Assessment (capstone)
The capstone course must be taken at Excelsior University and cannot be transferred in.

PROFESSIONAL COMPONENT

PROFESSIONAL CORE REQUIREMENTS

▶ BUS 341 Management Concepts and Applications
▶ BUS 452 Business Leadership
▶ ACC 211 Financial Accounting or ACC 212 Managerial Accounting
▶ IT 221 Introduction to Computers
▶ IT 390 Project Management

BUSINESS AND MANAGEMENT CORE REQUIREMENTS

▶ BUS 312 Managing Human Resources
▶ BUS 351 Marketing Concepts and Application
▶ BUS 350 Principles of Finance
▶ BUS 311 Organizational Behavior
▶ BUS 435 International Business

PROFESSIONAL COMPONENT ELECTIVES

▶ Any business/management-related credits outside the core are applied as professional
component electives.

ELECTIVE CREDIT COMPONENT

Credits in free elective to include credits from the arts and sciences, business,
or any approved free elective area.

This chart shows degree specific requirements. These requirements will fit into total credits for
the degree and will apply toward the overall credits listed on **page 35.** Once you are enrolled,
the **My Academic Planner** tool will specify how credits (transfer and remaining) apply.

Program Description

The Bachelor of Professional Studies in Business and Management is a flexible career-oriented program developed to serve the needs of students who want to build upon their existing knowledge and earn a bachelor's degree within their career field.

The structure and flexibility of the Bachelor of Professional Studies (BPS) in Business and Management makes it an excellent educational next step for graduates of Excelsior University associate in applied science programs in business and technology. As with other bachelor's programs, credit is awarded for Excelsior University courses, courses taken at accredited institutions other than Excelsior, approved proficiency exams, approved military training, and programs and courses approved for credit by the American Council on Education (ACE) or the New York State Board of Regents National College Credit Recommendation Service (formerly known as National PONSI).

The Excelsior University BPS degree is an attractive option for students who seek to apply credit for military and other training toward a bachelor's degree. Additionally, the BPS degree is an attractive option for military spouses and for veterans and DOD civilians who have completed government-sponsored training that has been evaluated for college credit by ACE.

Of the total 120 credits for the Bachelor of Professional Studies in Business and Management, 30 must be earned at the upper level, 9 in the arts and sciences, 15 in the professional component and 6 in electives.

Specialized Accreditation/Recognition: *The Bachelor of Professional Studies in Business and Management is accredited by the International Accreditation Council for Business Education (IACBE), 11960 Quivira Rd., Overland Park, KS 66213.*

Program Educational Objectives

Upon successful completion of the Excelsior University Bachelor of Professional Studies in Business and Management program, the graduate will be able to:

1. Apply discipline-specific concepts and methodologies to identify, analyze, and solve business problems.

2. Demonstrate desire and commitment to remain current with and adaptive to changing business conditions through continuous learning and self-improvement.

3. Demonstrate independent and critical thinking, function effectively in team-oriented settings, and maintain a high level of performance in a professional business environment.

4. Communicate effectively, orally and in writing, in a professional business environment.

5. Behave ethically and professionally in business and society.

6. Demonstrate and utilize leadership principles in one's chosen career field.

Program Outcomes

1. Apply basic accounting concepts and principles to the analysis and interpretation of corporate financial statements.

2. Explain how modern marketing concepts and theories support and influence business strategies.

3. Utilize financial management concepts and tools in order to make informed business decisions.

4. Apply the major concepts and theories of management to develop business strategies in a real-world context.

5. Analyze the opportunities and risks associated with doing business in a global environment.

6. Employ organizational theories and concepts to explain the impact of the organizational environment on management practices and employee relations.

7. Analyze various leadership approaches and their application to different organizational contexts.

8. Apply project management tools and techniques in a business environment.

9. Effectively communicate strategic management concepts orally and in writing to multiple audiences.

10. Apply various information technologies to support business strategies.

11. Justify decisions by evaluating the social, ethical, and legal implications for business organizations.

12. Apply knowledge of business concepts and functions in an integrated manner.

Degree Requirements

Every Excelsior University degree program requires a specific number of credits in each of its component areas. The chart relevant to your degree program shows a graphic representation of the credit needed to fulfill all the requirements for your chosen degree.

The Excelsior University Bachelor of Professional Studies in Business and Management program comprises three major components: arts and sciences, professional, and elective credit. The three components and their respective requirements are explained in the following sections.

A grade of "C" or higher is required for all Professional Component core requirements, the written English requirement (both courses), Precalculus Algebra, Statistics, and Ethics.

Arts and Sciences Component
(30 credits, including 9 upper-level)

Excess credits in arts and sciences may be applied toward electives.

A. **Written English Requirement**
   At least 6 credits must come from courses that satisfy the written English requirement [**ENG 101 English Composition** and **ENG 202 Business Writing**] (see page 9).

B. **Humanities**
   You must successfully complete at least 9 credits in the humanities (must include Ethics) [**BUS 323 Business Ethics**]. Ethics must be completed with a grade of C or better.
   Humanities subjects include, but are not limited to, art, music, literature, foreign language, philosophy, religion, speech, and creative/advanced writing.
   Examinations or courses used to satisfy the written English requirement may not be applied toward the humanities requirement.

C. **Social Sciences/History**
   You must successfully complete a minimum of 6 credits in the social sciences/history. This is an exception to the general education requirements for a minimum of 9 credits in social sciences/history.
   Social sciences/history subjects include, but are not limited to, anthropology, sociology, government, political science, psychology, geography, history, and economics.

D. **Natural Sciences and Mathematics**
   You must successfully complete a minimum of 6 credits in mathematics to include a 3-credit course in Statistics [**BUS 231 Business Data Literacy**].
   You must successfully complete a minimum of 3 credits in natural sciences [**BIO 110 Biology (Non-Lab), GEOL 108 Earth Science and Society, GEOL 114 Introduction to Oceanography, PHYS 201–203 Physics I–II, NS 110 Science in Today's World**].
   Natural sciences and mathematics subjects include, but are not limited to, anatomy and physiology, microbiology, chemistry, biology, genetics, zoology, physics, precalculus, calculus, astronomy, geology, oceanography, etc.

Only three college-level math courses below the level of calculus may be applied to degree requirements.

Professional Component
(45 credits, including 15 upper-level)

The professional component includes a professional core that helps you gain basic knowledge in business administration and the underlying discipline of decision making, and a business and management core and professional electives that allow you to apply and synthesize this knowledge through the study of various business content areas. At least 15 credits at the upper (junior/senior) level must be completed in the professional component; 9 of these upper-level credits must

be in the business and management core and/or professional component electives. Credits may be earned through Excelsior University courses and examinations and those completed through other approved sources, as well as approved military and business and industry training.

Professional Core Requirements

One course required in each professional core area below.

▶ General Management: [**BUS 341 Management Concepts and Applications**]
▶ Leadership: [**BUS 452 Business Leadership**]
▶ Accounting: [**ACC 211 Financial Accounting, ACC 212 Managerial Accounting**]
▶ Computer Applications: [**IT 221 Introduction to Computers**]
▶ Project Management: [**IT 390 Project Management**]

Business and Management Core
(9 upper-level credits)

One course required in each business and management core area below.

▶ Human Resources Management : [**BUS 312 Managing Human Resources**]
▶ Marketing: [**BUS 351 Marketing Concepts and Application**]
▶ Finance: [**BUS 350 Principles of Finance**]
▶ Organizational Behavior : [**BUS 311 Organizational Behavior**]
▶ Global Business : [**BUS 435 International Business**]
▶ Integrated Business and Management Assessment Capstone: [**BUS 490 Integrated Business and Management Assessment**]

Professional Component Electives
(6 upper level credits)

Any business/management-related credits outside the core are applied as professional component electives. Business/management credits in excess of the professional component maximum of 45 may be applied to the additional credit component [**INT 401 Professional Experience**].

Elective Credit Component
(45 credits)

Although you may have already fulfilled the minimum credit requirements in the arts and sciences and professional components of your degree, you may still need to earn additional credit to fulfill the total credit requirement of the Bachelor of Professional Studies. To do this, you may apply any of the following: arts and sciences credit above the minimum required, professional component credit (business/management) above the minimum required, or free elective credit.

Free elective credit may be earned in any field of collegiate study, including business and other professional, technical, or career areas as well as the arts and sciences. Examples include military science, health, nursing, engineering, education, computer science, home economics, secretarial science, architecture, drafting, auto mechanics, law, social work, and criminal justice. A maximum of 2 credits for physical education activity courses may be applied.

Information Literacy Requirement

All students are expected to demonstrate competency in information literacy by completing the **INL 102 Information Literacy** course. See page 10 for more information about the information literacy requirement. The information literacy requirement is applied to the additional credit component.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

Bachelor of Professional Studies in
TECHNOLOGY MANAGEMENT

120
CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 35 for an overview of general education and distribution requirements
for all bachelor's degree programs.

IND 101 Cornerstone A: Foundations or IND 301 Cornerstone B: Pathways
The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

DEGREE-SPECIFIC REQUIREMENTS

BUS 323 Business Ethics

College Algebra or Statistics

PROFESSIONAL CORE

▶ BUS 341 Management Concepts and Applications

▶ BUS 452 Business Leadership

▶ ACC 211 Financial Accounting

▶ IT 221 Introductions to Computers

▶ IT 390 Project Management

TECHNOLOGY MANAGEMENT CORE

▶ TECH 230 Technology and Society

▶ TECH 330 Economic Analysis for Technologists

▶ TECH 340 Intro to Energy Utilization

Professional Component Electives
At least 15 credits in electives must be in one of the following areas: Electrical Technology,
Information Technology, Nuclear Technology, or Renewable Energy Technology

TECH 490 Technology Management Capstone: Integrated Technology Assessment
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for
the degree and will apply toward the overall credits listed on page 35. Once you are enrolled,
the My Academic Planner tool will specify how credits (transfer and remaining) apply.

Program Description

The Bachelor of Professional Studies in Technology Management is a flexible career-oriented program developed for students who want to build upon their knowledge and earn a bachelor's degree within their technical field. The program puts special emphasis on developing the knowledge, skills, attitudes, and values required for a technical person to meet the demands of a 21st-century workforce. To do this, the program has identified 10 different outcomes, that provide students with a broad professional foundation in the various functional components of technology and management, as well as with a strong liberal base to ensure students have academic breadth and the commitment to lifelong learning needed to adapt to and succeed in an ever-changing world. Additionally, the program has identified four technical concentrations that provide students with a broad professional and technical foundation in the various functional components of technology. The concentrations are a group of related college-level courses within a technical component that combine depth and breadth of study in a recognized math/science-based technology discipline. The goal of the degree program in specific concentrations is to foster the ability of students to apply what they have learned within the degree program to the real-world contexts of a technology-based industry.

Of the total 120 credits for the Bachelor of Professional Studies in Technology Management, 30 must be earned at the upper level, 9 in the arts and sciences, 15 in the technology component and 6 in electives.

The four concentrations are: **Electrical Technology, Information Technology, Nuclear Technology,** and **Renewable Energy Technology.**

Student progress within the degree program is based on the demonstration of proficiency, and is attainable through multiple, flexible pathways—offering course-based, prior learning assessment, and credit aggregation pathways to degree completion. In this way, the program is customizable and tailored to each student's need and learning style. The Bachelor of Professional Studies in Technology Management is an option for students who seek to apply credit for military and other training toward a bachelor degree.

Program (Student) Outcomes

The outcomes are geared toward providing students with a foundational knowledge of professional studies in technology management and the discipline of effective decision making in the technology industry.

Upon successful completion of the degree program, students will be able to:

1. Apply knowledge of mathematics and natural sciences to problem-solving in technology management contexts.

2. Develop cohesive written and oral arguments in your technical concentration using appropriate supporting evidence.

3. Critically evaluate and propose solutions for technology management problems.

4. Critically evaluate the ethical, legal, and social implications associated with the management of technology in your concentration field.

5. Participate effectively in diverse teams to address technical issues in your technology concentration.

6. Apply project management tools and techniques to plan, manage, and close a project in the applicable technology field.

7. Apply computer applications or computer software packages to solve technical problems in your technical concentration.

8. Apply technological and management concepts in an integrated manner using both local and global perspective.

9. Employ critical thinking skills to interpret and analyze competing arguments and multiple perspectives in a technology environment.

10. Evaluate your individual strengths and weaknesses with the desire to update skills and continuously improve.

Degree Requirements

The Excelsior University Bachelor of Professional Studies in Technology Management program requires a total of 120 credits and comprises three major components—arts and sciences, professional, and additional credit. The three components and their respective requirements are explained in the following sections.

▶ **30 credits** minimum required in the arts and sciences

▶ **45 credits** minimum required in the professional component

▶ **45 credits** required in the additional credit component (to include **INL 102 Information Literacy**)

Arts and Sciences Component
(30 credits, including 9 upper-level)

Excess credits in arts and science may be applied toward the additional credit component as electives.

A. **Written English Requirement**
At least 6 credits must come from courses or exams that satisfy the written English requirement (see page 9) [**ENG 101 English Composition, ENG 102 English Composition II, ENG 312 Scientific and Technical Writing**]. Minimum grade of C required.

B. **Humanities**
You must successfully complete at least 9 credits in the humanities, including ethics [**BUS 323 Business Ethics**]. Ethics must be completed with a grade of C or better.

Humanities subjects include, but are not limited to, art, music, literature, foreign language, philosophy, religion, speech, creative writing, and advanced writing. Examinations or courses used to satisfy the written English requirement may not be applied toward the humanities requirement.

C. **Social Sciences/History**
You must successfully complete a minimum of 6 credits in social sciences/history. Social sciences and history subjects include, but are not limited to, anthropology, sociology, government, political science, psychology, geography, history, and economics.

D. **Natural Sciences/Mathematics**
You must successfully complete a minimum of 6 credits in mathematics to include a 3-credit course in college algebra [**MAT 114 Intermediate Algebra, MAT 116 Precalculus Algebra**] or Statistics [**BUS 231 Business Data Literacy**].

You must successfully complete a minimum of 3 credits in natural sciences [**BIO 110 Biology (Non-Lab), GEOL 108 Earth Science and Society, GEOL 114 Introduction to Oceanography, PHYS 201–203 Physics I–II**]. Natural sciences subjects include, but are not limited to, astronomy, geology, oceanography, anatomy and physiology, microbiology, chemistry, biology, genetics, zoology, and physics. Mathematics courses include intermediate algebra, precalculus, calculus, etc.

Only three college-level math courses below the level of calculus may be applied to degree requirements.

Professional Component
(45 credits, including 15 upper-level)

The professional component includes a professional core that helps you gain basic knowledge in business administration and the underlying discipline of decision making, and a technology management core and professional component electives that allow you to apply and synthesize your technical knowledge in one of four concentration areas—electrical technology, information technology, nuclear technology, and renewable energy technology A minimum of 15 credits is required in the concentration areas.

At least 15 credits at the upper (junior/senior) level must be completed in the professional component; 9 of these upper-level credits must be in the technology management core and/or professional component electives. Credits may be earned through Excelsior University courses and other approved sources, as well as approved military, business, and industry training. A grade of C or better is required for applicable credit.

Professional Core Requirements

One course required in each professional core area below.

1. General Management
   [**BUS 341 Management Concepts and Applications**]

2. Leadership
   [**BUS 452 Business Leadership**]

3. Accounting
   [**ACC 211 Financial Accounting**]

4. Computer Applications
   [**IT 221 Introduction to Computers**]

5. Project Management
   [**IT 390 Project Management**]

Technology Management Core Requirements

(9 upper-level credits must be in Technology Management Core or Professional Electives)

One 3-credit course required in each technology management core area below.

1. Technology and Society
   [**TECH 230 Technology and Society**]

2. Engineering Economics
   [**TECH 330 Economic Analysis for Technologists**]

3. Introduction to Energy Utilization
   [**TECH 340 Intro to Energy Utilization**]

4. Integrated Technology Assessment (capstone)
   [**TECH 490 Technology Management Capstone: Integrated Technology Assessment**—the capstone course is required and must be taken through Excelsior University and cannot be transferred in.]

Concentration Areas

▶ **Electrical Technology**
▶ **Information Technology**
▶ **Nuclear Technology**
▶ **Renewable Energy Technology**

Students must select a concentration area in one of four areas: electrical technology, information technology, nuclear technology and renewable energy technology. A minimum of 15 credits must be earned in the concentration area.

Concentrations

ELECTRICAL TECHNOLOGY

A concentration in electrical technology focuses on training and preparing students with the knowledge and practical skills in electrical technology along with electrical circuits, electrical systems, and electrical equipment. It is centered on design, assembly, testing, maintenance, repairing, and upgrading of electrical circuits, components, and equipment. The electrical technology outcomes are geared toward providing students with fundamental as well as applied knowledge in electrical systems, electrical equipment, and processes. These will prepare the students for positions in operating, repairing, and upgrading electrical circuits, electrical systems, and electrical equipment. Upon successful completion of the Excelsior University Bachelor of Professional Studies with an Electrical Technology concentration, the student will be able to:

1. Identify, formulate, and present solutions to a variety of technical problems in the area of electrical technology.

2. Demonstrate competency in the analysis, interpretation, and application of data in the area of electrical technology.

Suggested Courses

▶ **ELEC 331 Digital and Analog Communications**
▶ **NUC 255 AC/DC Theory**
▶ **TECH 225 Applied Instrumentation and Control**
▶ **TECH 233 Electrical Power Distribution**
   Three additional credits must be earned in Electronic/Instrumentation Technologies Subjects.

INFORMATION TECHNOLOGY

A concentration in information technology focuses on training and preparing students to stay up-to-date with the rapidly changing technical environment. The information technology concentration is a technical discipline centered on the design, assembly, testing, and maintenance of computer circuitry and peripheral hardware. The concentration also emphasizes the information system concepts, principles, and practices, and problem solving of information technology domains. The information technology outcomes are geared toward providing students with a foundational knowledge of information technology in a wide variety of subject areas and preparing students for positions including information technicians, database management systems, software management, data communications, information security, and network management. Upon successful completion of the Excelsior University Bachelor of Professional Studies with an Information Technology concentration, the student will be able to:

1. Analyze and apply a range of information system concepts, principles, and practices in the context of solving problems across a spectrum of information technology domains.

2. Develop computer-based applications using appropriate information technology concepts and principles.

Suggested Courses

▶ **IT 250 Business Data Communication**
▶ **IT 370 Database Management Systems**
▶ **IT 371 Web Design and Development**
▶ **IT 380 Overview of Computer Security**
▶ **IT 211 Fundamentals of Programming**
▶ **IT 418 Software Systems Analysis and Design**

Only one computer programming course will be accepted as Professional Component.

NUCLEAR TECHNOLOGY

A concentration in nuclear technology focuses on preparing students for technical background in the nuclear industry. The nuclear technology concentration is a technical discipline centered on the design, materials, operations, and maintenance associated with radiation shielding, radiation detection instrumentation, and emergency planning for nuclear research and power generation facilities. The nuclear technology concentration is geared toward providing students with a foundational knowledge of nuclear technology for positions at nuclear facilities. Upon completion of the Excelsior University Bachelor of Professional Studies with a Nuclear Technology concentration, the students will be able to:

1. Demonstrate a proficiency in the operation and maintenance of nuclear processes and systems.

2. Demonstrate a proficiency in the applicable rules, regulations, and procedures pertaining to radiological safety and radiation protection.

3. Identify the key principles in the proper operation, testing, and troubleshooting of turbines, electric generators, pumps, and other auxiliary plant equipment.

Suggested Courses

▶ **NUC 250 Introduction to Heat Transfer and Fluid Mechanics**
▶ **NUC 330 Reactor Core Functions**
▶ **NUC 350 Plant Systems Overview**
▶ Six additional credits must be earned in Nuclear Technologies Subjects.

RENEWABLE ENERGY TECHNOLOGY

A concentration in renewable energy technology focuses on training and preparing students to stay current with the renewable energy industry. The renewable energy technology concentration is a technical discipline centered on renewable energies such as solar,

wind, water, and geothermal. The concentration also emphasizes the political and economic influences on the renewable energy business. The renewable energy technology outcomes are geared toward providing students with a foundational knowledge of renewable energy in a wide variety of subject areas and preparing students for positions in the renewable energy industry including an understanding of economics and politics associated with renewable energy. Upon successful completion of the Excelsior University Bachelor of Professional Studies with a Renewable Energy Technology concentration, the student will be able to:

1. Identify and discuss renewable energy technologies being used commercially and residentially.

2. Perform an analysis of political and economic influences on the renewable energy business.

Required Courses

- ▸ **NUC 260 Power Plant Components**
- ▸ **TECH 233 Electrical Power Distribution**
- ▸ **TECH 250 Renewable Energy Overview I**
- ▸ **TECH 251 Renewable Energy Overview II**
- ▸ **TECH 260 Energy Industry Fundamentals**

Professional Component Electives

Any technology-related credits outside the core are applied as professional component electives.

Technology management credits in excess of the professional component maximum of 45 may be applied to the additional credit component.

Additional Credit Component
(45 credits, including 6 upper-level)

Although you may have already fulfilled the minimum credit requirements in the arts and sciences and professional components of your degree, you may still need to earn additional credit to fulfill the total credit requirement of your Bachelor of Professional Studies in Technology Management. To do this, you may apply any of the following: arts and sciences credit above the minimum required, professional component credit (technology/management) above the minimum required, or free elective credit.

Free elective credit may be earned in any field of collegiate study, including business and other professional, technical, or vocational areas as well as the arts and sciences. Examples include military science, health, nursing, engineering, education, computer science, home economics, secretarial science, architecture, drafting, auto mechanics, law, social work, and criminal justice. A maximum of 2 credits for physical education activity courses may be applied.

Information Literacy Requirement (1 credit)

Students are expected to demonstrate competency in information literacy [**INL 102 Information Literacy**]. See page 10 for more information about this requirement. The information literacy requirement is applied to the additional credit component.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

Bachelor of Science in
BUSINESS

120 CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 34 for an overview of general education and distribution requirements for all bachelor's degree programs.

IND 101 Cornerstone A: Foundations or **IND 301 Cornerstone B: Pathways**
The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

DEGREE-SPECIFIC REQUIREMENTS (At least 21 upper level business credits)

BUS 323 Business Ethics	BUS 230 Business Law
ECO 260 Introduction to Microeconomics	IT 221 Introduction to Computers
ECO 262 Introduction to Macroeconomics	BUS 222 Business Communication
College Algebra or above	BUS 341 Management Concepts and Applications
BUS 231 Business Data Literacy	BUS 351 Marketing Concepts and Applications
BUS 311 Organizational Behavior	BUS 350 Principles of Finance
BUS 431 Business Data Analysis	BUS 435 International Business
ACC 211 Financial Accounting	Business Electives
ACC 212 Managerial Accounting	

CONCENTRATION OPTIONS
General Accounting, Finance, General Business, Logistics Management, Management of Human Resources, or Marketing (at least 9 upper level credits)

BUS 499 Strategic Management Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on **page 34**. Once you are enrolled, the **My Academic Planner** tool will specify how credits (transfer and remaining) apply.

Program Description

The Bachelor of Science in Business is a competency-based degree program focused on preparing students to become business managers and leaders. The program puts special emphasis on developing the knowledge, professional skills, attitudes, and values required for a business person to meet the demands of a 21st-century workforce. To do this, the program emphasizes 15 competency areas that provide students with a broad professional foundation in the functional components of business, as well as with a strong liberal arts base to ensure students have academic breadth and the commitment to lifelong learning needed to adapt to and succeed in an ever-changing world. The integration of all 15 competency areas allows students to apply what they have learned within the degree program to the real-world contexts of the business world.

Student progress within the degree program is based on the demonstration of proficiency, and is attainable through multiple flexible pathways—online courses, credit by exam, and credit aggregation. These avenues can be used in the combination best suited to the preferences of the student.

The course option provides a pathway for students who desire a structured, instructor-led classroom experience. The exam experience provides students with an independent study option, where grades are solely determined by their performance on an exam. Study for the exams is supported by free open educational resources. Finally, students have the opportunity to earn credits elsewhere and transfer them into the degree program to satisfy requirements. Each of these pathways allow students to customize and tailor the program to their own needs and learning styles.

Of the total 120 credits for the Bachelor of Science in Business, 21 upper level credits must be earned in Business.

Specialized Accreditation/Recognition: *The Bachelor of Science in Business is accredited by the International Accreditation Council for Business Education (IACBE), 11960 Quivira Rd., Overland Park KS, 66213.*

Program Educational Objectives

As an Excelsior University bachelor's-level business graduate, within a few years of graduation, you are expected to:

1. Apply discipline-specific concepts and methodologies to identify, analyze, and solve business problems.

2. Demonstrate a desire and commitment to remain current with and adaptive to changing business conditions through continuous learning and self-improvement.

3. Demonstrate independent and critical thinking, function effectively in team-oriented settings, and maintain a high level of performance in a professional business environment.

4. Communicate effectively, orally and in writing, in a professional business environment.

5. Behave ethically and professionally in business and society.

6. Demonstrate and utilize leadership principles in one's chosen career field.

Program Competencies

The competencies provide students with a foundational knowledge of business administration and strategic management. Upon completion of the degree program, students will be able to achieve the following in these competency areas:

1. **Economics**
   Apply micro and macroeconomic concepts and theories to explain the relationship between legal, social, and economic interests of individuals and society.

2. **Accounting**
   Apply basic accounting concepts and principles to the analysis and interpretation of corporate financial statements.

3. **Marketing**
   Explain how modern marketing concepts and theories support and influence business strategies.

4. **Finance**
   Utilize financial management concepts and tools to make informed business decisions.

5. **Management**
   Apply the major concepts and theories of management and leadership in order to develop business strategies in a real-world context.

6. **Quantitative Analysis**
   Utilize quantitative research, statistics, and data analysis to analyze business data, support business decisions, and solve problems.

7. **Global**
   Analyze the opportunities and risks associated with doing business in a global environment.

8. **Ethics**
   Justify decisions by evaluating the social, ethical, and legal implications for business organizations.

9. **Communication**
   Effectively communicate business concepts orally and in writing to multiple audiences.

10. **Computer Skills**
    Utilize business computer applications and information technologies to organize and interpret business data and information.

11. **Teamwork/Cultural Diversity**
    Work effectively and collaboratively on diverse teams to complete projects based on real-world scenarios.

12. **Critical Thinking**
    Employ critical thinking skills to interpret and analyze competing arguments and perspectives in a business environment.

13. **Leadership**
    Organize tasks and understand how to delegate responsibility in order to complete collaborative projects in a timely manner.

14. **Lifelong Learning**
    Evaluate their individual strengths and weaknesses with the desire to update skills and continually improve.

15. **Business Strategy**
    Apply knowledge of business concepts and functions in an integrated manner to make strategic decisions in a real-world context.

Degree Requirements

The Bachelor of Science in Business (with concentration) requires a minimum of 120 credits, distributed as follows:

- ▶ 60 credits minimum in the arts and sciences
- ▶ 51 credits minimum in the business component
- ▶ 9 credits in the elective credit component

Arts and Sciences Component (60 credits)

Arts and sciences are those areas of study classified as humanities, social sciences/history, and natural sciences and mathematics. Excelsior University business degrees require a minimum number of credits in humanities and social sciences/history as part of the arts and sciences component:

- ▶ 6-credit written English requirement, completed with a minimum grade of C [**ENG 101 English Composition, ENG 202 Business Writing**].
- ▶ 9 credits in humanities (must include Ethics). Ethics must be completed with a grade of C or better.
- ▶ 15 credits in social sciences/history (must include microeconomics and macroeconomics)
- ▶ 9 credits in natural sciences and mathematics to include a math course at the level of College Algebra or above, statistics, and a course in natural sciences
- ▶ up to 21 credits in any arts and sciences area (must include **Organizational Behavior and Quantitative Analysis**)

  Excess credits in arts and science or in the business component may be applied toward electives.

Humanities

You must successfully complete at least 9 credits in the humanities.

A. A minimum of 3 credits must be earned in Business Ethics with a minimum grade of C [**BUS 323 Business Ethics**].

B. A minimum of 6 credits must be earned in other humanities subjects such as art, literature, philosophy, religion, theatre, speech, and foreign languages.

Humanities subjects include, but are not limited to, art, music, literature, foreign language, philosophy, religion, speech, and creative/advanced writing.

Examinations or courses used to satisfy the written English requirement may not be applied toward the humanities requirement.

Social Sciences/History

You must successfully complete a minimum of 15 credits in the social sciences/history and must include microeconomics and macroeconomics.
Social sciences/history subjects include, but are not limited to, anthropology, sociology, government, political science, psychology, geography, history, and economics.

Natural Sciences and Mathematics

You must successfully complete a minimum of 9 credits in natural sciences and mathematics comprising a 3-credit course in College Algebra (or higher math), a 3-credit course in statistics [**BUS 231 Business Data Literacy**], and a 3-credit course in a natural science.

Natural sciences and mathematics subjects include, but are not limited to, anatomy and physiology, microbiology, chemistry, biology, genetics, zoology, physics, precalculus, calculus, astronomy, geology, and oceanography.

Only three college-level math courses below the level of calculus may be applied to degree requirements.

Arts and Sciences Core Requirements

You must earn a minimum grade of C in each of the following arts and sciences core requirements:

A. **Written English Requirement:** At least 6 credits must be taken to satisfy the written English requirement (see).

B. **Ethics:** Study of ethics theory, personal values, and the impacts of organizational culture. An understanding of how ethical principles relate to the organizations in which people function, and the effects of the organization's ethics on its reputation, functioning, and performance.
The ethics requirement may be satisfied with credits from ethics-related courses with a grade of C or better [**BUS 323 Business Ethics**].

C. **Microeconomics:** Elementary analysis of economic theory as it relates to the individual consumer and individual firm. Topics covered include supply and demand, consumption and revenue, production and cost, and analysis of output and input markets.
The microeconomics requirement may be satisfied with credits from coursework in any of the following subjects: introductory microeconomics, principles of economics [micro], managerial economics [**ECO 260 Introduction to Microeconomics**].

D. **Macroeconomics:** Study of concepts and methods of economic analysis as well as gross national product, unemployment, money, and theory of national income.
The macroeconomics requirement may be satisfied with credits from coursework in any of the following subjects: introductory macroeconomics, principles of economics [macro] [**ECO 262 Introduction to Macroeconomics**].

E. **Mathematics** (at the level of College Algebra [**MAT 114 Intermediate Algebra, MAT 116 Precalculus Algebra**] or higher)**:** Study of intermediate algebra to identify, classify, and solve standard elementary equations, including linear, quadratic, and radical equations, as well as systems of linear equations. Graph, analyze, and describe the behavior of elementary functions, and obtain information about such a function from its graph. Translate, from the written word to its equivalent mathematical formulation, to solve various application problems.

F. **The course typically precedes precalculus in a college math sequence.** Elementary or beginning algebra courses will not apply to the mathematics requirement. The mathematics requirement may be satisfied from coursework in any of the following subjects: college algebra, intermediate algebra (**MAT 114 Intermediate Algebra**), precalculus (**MAT 116 Precalculus Algebra**).

G. **Statistics:** Introduction to the basic concepts of probability and statistics, sample statistics, discrete and continuous probability distributions, confidence intervals, estimation, and regression. The statistics requirement may be satisfied with credits from coursework in any of the following subjects: business statistics, economic statistics, elementary statistics, introductory statistics, statistics for the social sciences, any statistics course that covers descriptive and inferential statistics [**BUS 231 Business Data Literacy**].

H. **Organizational Behavior:** An overview of human behavior in work organizations. It examines theoretical, empirical, and applications issues from individual, interpersonal, group, and organizational perspectives. Topics include the overview and history of the field, perceptions, attitudes, learning processes, personality, motivation, stress, performance appraisal, group dynamics, leadership, communication, decision making, job design, organizational structure and design, organizational change, and development [**BUS 311 Organizational Behavior**].

I. **Quantitative Analysis:** Quantitative methods and techniques for decision support in a management environment, including applications of the computer. It will include formal project management tools and techniques, such as Gantt charts, Program Evaluation and Review Techniques (PERT) and Critical Path Method (CPM) charts, use of time series analysis for forecasting, applications of regression analysis in management, and aspects of decision theory and simple

modeling. Several components include the use of computer software [**BUS 431 Business Data Analysis**].

Business Component (51 credits)
(21 credits at the upper level, 9 of which must be in the concentration)

The business component includes a core requirement that helps you gain basic knowledge in business administration and the underlying discipline of decision making. Many of the required core courses are offered by community colleges, while some may be available only at four-year institutions.

Credit in the business component of your degree is earned from core courses, both lower-level and upper-level business elective courses, and concentration subjects. A grade of C or better is required for applicable credit.

All credit you apply to the business component of your degree must have been earned fewer than 15 years prior to your enrollment date.

Business Component Core Requirements

The following business subjects comprise the core requirements for the degree program. Refer to the course description section of the catalog beginning on to locate courses that meet the appropriate subject area. In general, a course or exam worth 3 credits will satisfy each core requirement.

A. **Financial Accounting:** Financial accounting subjects include, but are not limited to, fundamentals of accounting I, principles of accounting I [**ACC 211 Financial Accounting**].

B. **Managerial Accounting:** Managerial accounting subjects include, but are not limited to, fundamentals of accounting II, introductory managerial accounting, principles of accounting II [**ACC 212 Managerial Accounting**].

C. **Introduction to Business Law (United States business law):** Subjects that

may be used to satisfy this business component core requirement include, but are not limited to, business law I or II, commercial law I or II, legal environment of business [**BUS 230 Business Law**].

D. **Computers:** Subjects that may be used to satisfy this business component core requirement include, but are not limited to, computer programming, computer science, data processing, and introduction to management/computer information systems. Word processing credit alone will not satisfy this requirement [**IT 221 Introduction to Computers**].

There are many Excelsior University courses that will apply to the computer requirement. Please refer to our website or contact your advising team for more information. A maximum of 9 credits in Computer courses to include the Computer core requirement, maybe applied to the Business Component of all Baccalaureate Business degrees (with the exception of the Bachelor of Science in Business with a Management Information Systems).

E. **Business Communication:** Business communications subjects should provide students with knowledge and skills to effectively communicate (oral and written) in global, diverse business environments by using computer technologies and social media tools [**BUS 222 Business Communication**].

F. **Principles of Management:** Subjects that may be used to satisfy this component include, but are not limited to, introduction to management, management, management concepts [**BUS 341 Management Concepts and Applications**].

G. **Principles of Marketing:** Subjects that may be used to satisfy this business component core requirement include, but are not limited to, introduction to marketing, marketing concepts, marketing principles [**BUS 351 Marketing Concepts and Application**].

H. **Financial Management:** Subjects that may be used to satisfy this business component core requirement include, but are not limited to, business finance, corporation finance, principles of finance [**BUS 350 Principles of Finance**].

Courses in personal finance will not satisfy this requirement.

I. **International Business:** Subjects that may be used to satisfy this business component core requirement include, but are not limited to, global business, international business [**BUS 435 International Business**].

J. **Strategic Management (Capstone):** [**BUS 499 Strategic Management (Capstone)**]

The capstone course is required and must be taken through Excelsior University and cannot be transferred in.

Identifying Applicable Business Elective Courses

To see what types of courses you may find applicable as business electives, you may wish to review the course titles listed for specific business concentrations on the following pages. Courses that are either required or suggested for concentrations are considered business electives for students pursuing a Bachelor of Science in Business with a concentration in General Business.

Upper-Level Credit Requirements

All students in the Bachelor of Science in Business (with concentration) must earn a minimum of 21 upper-level business credits. If you are pursuing a business degree with a general business concentration, you may apply the upper-level credit in any approved business area. If you choose any other concentration, at least 9 of the 21 required credits of upper-level credit must be in your area of concentration.

In addition to college course credit, you may earn upper-level credit by passing examinations classified by the Excelsior

University business faculty as upper level as well as by successfully completing courses or examinations evaluated by the American Council on Education (ACE) College Credit Recommendation Service of the Center for Lifelong Learning or the New York State Board of Regents National College Credit Recommendation Service (formerly known as National PONSI) and accepted by the Excelsior University business faculty as upper level.

Some credit recommended as upper-level by ACE may not apply as upper-level credit toward your business degree.

The Excelsior University business faculty will not classify the following as upper-level business electives, even if such courses are numbered at the junior/senior level:

▶ Business Writing
▶ Consumer Finance
▶ Personal Finance

Other faculty and University policies may also affect the classification of upper-level credit.

There are many Excelsior University courses that will apply as upper-level credit in the business degrees. See our website for a list of current course offerings.

Elective Credit Component (9 credits)

Although you may have already fulfilled the minimum credit requirements in the arts and sciences and business components of your chosen degree, you may still need to earn additional credit to fulfill the total credit requirement of your bachelor's degree. To do this, you may apply any of the following: arts and sciences credit above the minimum required, business credit above the minimum required, or free elective credit.

Free elective credit may be earned in any field of collegiate study, including business and other professional, technical, or vocational areas as well as the arts and sciences. Examples include military science, health, nursing, engineering, education, computer science, home economics, secretarial science, architecture, drafting, auto mechanics, law, social work, and criminal justice. A maximum of 2 credits for physical education activity courses may be applied.

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

Concentrations

In addition to other business component requirements, you must also satisfy requirements specific to your chosen concentration.

The baccalaureate degree program in business offers the following concentrations:

- **Finance**
- **General Accounting**
- **General Business**
- **Logistics Management**
- **Management of Human Resources**
- **Marketing**

FINANCE

The finance degree curriculum is designed to help you develop a working understanding of financial decision-making processes. It also offers insight into how financial markets function. The finance concentration provides part of the necessary education for students seeking careers in business, industry, financial institutions, government, or not-for-profit organizations in positions such as financial analyst, cost engineer, securities analyst, or commercial or investment banking officer.

Concentration Outcomes

Upon successful completion of the Excelsior University Bachelor of Science in Business with a Finance concentration, the graduate will be able to:

1. Describe managerial functions within global financial markets and banking institutions.

2. Integrate effective strategies for improving the financial management of domestic and foreign corporations.

3. Evaluate organizational financial risks through securities and portfolio analysis.

Subject Requirements for the Finance Concentration

- Advanced Financial Management (sometimes called Advanced Corporate Finance) [**ACC 415 Advanced Financial Management**]
- Financial Markets and Institutions (or Money and Banking) [**BUS 235 Financial Markets & Institutions**]
- Securities Analysis (or Portfolio Management) [**BUS 437 Security Analysis & Investments**]
- Cost Accounting [**ACC 360 Cost Accounting**]
- Individual and Corporate Taxation [**ACC 417 Individual and Corporate Taxation**]

GENERAL ACCOUNTING

Accounting is a changing profession that demands concern for both theory and practice. Accountants must work with people while simultaneously maintaining awareness of the human, social, legal, and environmental factors vital to the operation of an organization. There are two major types of accounting: managerial accounting and public accounting.

Managerial accountants work with people at all levels of management to develop, monitor, and review a firm's information and financial systems in order to help plan and control business activities. Career opportunities include controllership and corporate or managerial accounting as well as public accounting, internal auditing, and consulting. Public accountants work independently or with auditing firms to establish the credibility of financial reports. They often specialize in tax and other financial matters.

Concentration Outcomes

Upon successful completion of the Excelsior University Bachelor of Science in Business with a General Accounting concentration, the graduate will be able to:

1. Describe Generally Accepted Accounting Principles (GAAP), concepts, and theories.

2. Integrate accounting decision-making tools for evaluating financial statements, conducting audits, and performing cost accounting.

3. Evaluate individual and corporate taxation policies, regulations, and practices of business organizations.

Subject Requirements for the General Accounting Concentration

- ▶ Intermediate Accounting I
  [**ACC 314 Intermediate Accounting I**]

- ▶ Intermediate Accounting II
  [**ACC 315 Intermediate Accounting II**]

- ▶ Cost Accounting
  [**ACC 360 Cost Accounting**]

- ▶ Taxation (United States tax)
  [**ACC 417 Individual & Corporate Taxation**]

- ▶ Auditing
  [**ACC 400 Auditing**]

GENERAL BUSINESS

Earning the credit required for this concentration helps you create a strong foundation on which to build a career. The Bachelor of Science curriculum is designed to give you an overview of the entire business world. By gaining the knowledge and skills associated with this level of learning, you should acquire the background necessary for a variety of nonspecialist employment opportunities. You may find this option of particular interest if you are considering a career in small business, graduate study in business, or law school following graduation. If Excelsior University does not offer a business concentration in your field of interest, you may choose to demonstrate your preparation in the field by enrolling in the general business option and applying a block of credit in a particular business-related field as electives.

LOGISTICS MANAGEMENT

The concentration in Logistics Management focuses on the flow of material and goods throughout the manufacturing and delivery process. Logistics management is a fundamental piece of the global supply chain, which includes procurement, manufacturing, warehousing, distribution, retailing, transportation, and technical services. Employment opportunities include production planning, inventory management, manufacturing management, global distribution, and logistics management—employment in any organization whose success depends on the global fulfillment of customers' requirements.

This concentration prepares the learner for understanding the complex strategic and analytic process of procuring, inventory control, managing, coordinating, maintaining, transporting, and distributing both goods and services. Emphasis is placed on the practical application of supply chain & project management concepts, risk management, quality control, warehousing, and distribution.

Concentration Outcomes

Upon successful completion of the Excelsior University Bachelor of Science in Business with a Logistics concentration, the graduate will be able to:

1. Integrate multidimensional methods to solve inventory control, facilities planning, warehousing, and distribution problems.

2. Analyze logistics, supply chain, and project management operations.

3. Prioritize cost reduction, risk, and maximized profits for logistics operations.

Subject Requirements for the Logistics Management Concentration

A. Required Subjects:
- ▶ Supply Chain Management [**BUS 440 Business Supply Chain Management**]

▸ Lean Logistics [**BUS 443 Lean Logistics**]
▸ Transportation, Warehousing, and Distribution [**BUS 381 Transportation, Warehousing, and Distribution**]

B. Additional credits in the concentration can be earned from courses such as operations management, purchasing, inventory management, quantitative methods, project management, and other related courses (with approval):

▸ Purchasing
▸ Inventory Management [**BUS 442 Inventory Management**]
▸ Operations Management [**BUS 425 Operations Management**]
▸ Quality Control
▸ Project Management [**IT 390 Project Management**]

MANAGEMENT OF HUMAN RESOURCES

The curriculum in management of human resources emphasizes the management of individuals and groups in business firms, government agencies, and other organizations. Managers must be competent leaders. They coordinate work and human systems so that employees are motivated. Managers must create an environment conducive to accomplishing the objectives of both the employees and the organization. Employment opportunities in the field include general management, human resource management, labor or industrial relations, and personnel administration.

Concentration Outcomes

Upon successful completion of the Excelsior University Bachelor of Science in Business with a Management of Human Resources concentration, the graduate will be able to:

1. Describe the role and context of human resource management.

2. Integrate personnel management and research to real business scenarios.

3. Evaluate human resources management and strategies to achieve organizational goals.

Subject Requirements for the Management of Human Resources Concentration

A. Required Subjects
▸ Managing Human Resources [**BUS 312 Managing Human Resources**]
▸ Managing Diversity [**BUS 380 Managing Diversity in the Workplace**]

B. Additional 9 credits in the concentration can be earned from courses such as leadership, recruitment, human resource technology, employee law, international human resources management, and other related courses (with approval). Below are examples of course options available to students:

▸ [**BUS 313 International Human Resource Management**]
▸ [**BUS 315 Labor Relations**]
▸ [**BUS 325 Women in Business**]
▸ [**BUS 452 Business Leadership**]
▸ [**BUS 453 Recruitment and Selection**]
▸ [**BUS 454 HR Analytics**]

MARKETING

Marketing is about how businesses interact with consumers and the processes by which they anticipate, analyze, and meet their needs. It is both a philosophy of doing business and a management activity that puts the customer at the heart of the organization. Whether it is the personal branding of an international celebrity, like Beyoncé, the promotion of a vacation destination, like Disneyland Paris, or the advertising of a global fast food brand, like McDonald's. Marketers both develop and apply a range of techniques—communications, creative, or technological—which

will prepare marketing managers to work at both the tactical and strategic levels within organizations and across a range of global industries.

Concentration Outcomes

Upon successful completion of the Excelsior University Bachelor of Science in Business with a Marketing concentration, the graduate will be able to:

1. Describe marketing activities and strategies that are used to shift products and services from vendors to consumers in the retail and wholesale markets.

2. Integrate marketing research to forecast trends of products and services to analyze the international and domestic markets.

3. Evaluate consumer behavior and promotional policy and determine any ethical implications.

Subject Requirements for the Marketing Concentration

A. Required Subjects
   ▶ Consumer Behavior
     [**BUS 225 Consumer Behavior**]
   ▶ Marketing Management
     (sometimes called Product Planning)
     [**BUS 375 Marketing Management**]
   ▶ Market Research
     [**BUS 460 Marketing Research**]

B. Additional credit in the concentration may be earned from courses such as advertising (or promotional policy), distribution channels management, international marketing, retail/wholesale management, sales management, and other related courses (with approval). [**BUS 310 Entrepreneurial Marketing, BUS 343 International Marketing**].

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Bachelor of Science in
CRIMINAL JUSTICE

120 CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 34 for an overview of general education and distribution requirements for all bachelor's degree programs.

IND 101 Cornerstone A: Foundations or IND 301 Cornerstone B: Pathways
The cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

Ethics

DEGREE-SPECIFIC REQUIREMENTS

CJ 101 Introduction to Criminal Justice

CJ 110 Introduction to Law Enforcement

CJ 120 Introduction to Corrections

CJ 228 Multicultural Issues in Criminal Justice

CJ 265 Criminal Procedure and Evidence

CJ 324 Criminology

CJ 338 Criminal Justice Administration

PSY 305 Research Methods

CJ 380 CJ Ethics

CJ 330 Judicial Process

CONCENTRATION OPTIONS
▶ Homeland Security

▶ Without Concentration

CJ 498 Criminal Justice Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on **page 34.** Once you are enrolled, the **My Academic Planner** tool will specify how credits (transfer and remaining) apply.

Program Description

A bachelor's degree in criminal justice incorporates the theories, history, and legal and ethical issues typically covered in the study of crime and the criminal justice system. Because a number of perspectives and related disciplines exist within the field of criminal justice, you are encouraged to develop depth, breadth, and understanding in one of two areas of concentration: **Homeland Security,** or **Without Concentration**. It is recommended that you also complete coursework outside the criminal justice major in psychology, sociology, and communications to better place your knowledge of the field in its broader social context.

Of the 120 credits for the Bachelor of Science in Criminal Justice, a total of 30 must be earned at the upper level (21 credits in the arts and sciences and 9 in electives). As part of these credits, for the core component of this degree, a minimum of 33 credits must be earned in the field of Criminal Justice, of which 18 must be at the upper level. A minimum GPA of 2.0 is required in the major.

Program Outcomes

All students who successfully complete the criminal justice major, regardless of their concentration, will be able to demonstrate proficiency in the following areas:

1. Analyze the legislative, enforcement, judicial, and correctional components of the criminal justice system, and their interactions.
2. Apply the major legal, criminological, and sociological theories to policies and procedures within the criminal justice system.
3. Analyze the ethical issues that arise in the criminal justice system and generate possible solutions.
4. Apply decision-making models in the development and implementation of policy and procedures.
5. Evaluate the changing demographics of society and their impact on the criminal justice system.

Core Requirements for All Concentrations

A. **CJ 101 Introduction to Criminal Justice**
B. **CJ 110 Introduction to Law Enforcement**
C. **CJ 120 Introduction to Corrections**
D. **CJ 228 Multicultural Issues in Criminal Justice**
E. **CJ 265 Criminal Procedure and Evidence**
F. **CJ 324 Criminology**
G. **CJ 338 Criminal Justice Administration**
H. **PSY 305 Research Methods**
I. **CJ 380 CJ Ethics**
J. **CJ 330 Judicial Process**
K. **CJ 498 Criminal Justice Capstone**

Concentrations

HOMELAND SECURITY CONCENTRATION

Outcomes for the Concentration

Students who complete the concentration in homeland security will be able to:

▶ Explain the interdisciplinary nature of homeland security, emergency management, and policy making.
▶ Apply knowledge and skills to assume leadership roles in homeland security and emergency management.
▶ Discuss the ethical issues that may arise in homeland and emergency management
▶ Appraise security risks based upon organizational needs and resources in both the private and public sectors.
▶ Describe the influence domestic and global diversity has on homeland security strategies.

Concentration Requirements

A. **HEM 125 Introduction to Homeland Security**
B. **HEM 352 Domestic Terrorism**
C. **HEM 356 Emergency Management**
D. **HEM 350 International Terrorism**
E. **HEM 460 Infrastructure Security and Policy**

Choose any 5 courses from this list:
- **CJ 301 Juvenile Delinquency and Justice**
- **CJ 365 Police and the Community**
- **CJ 432 Drugs and Crime**
- **CJ 315 Gangs in America**
- **HEM125 Intro to Homeland Security**
- **HEM 352 Domestic Terrorism**
- **HEM 356 Emergency Management**
- **HEM 350 International Terrorism**
- **HEM 460 Infrastructure Security and Policy**

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

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Bachelor of Science in
CYBERSECURITY

120 CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 34 for an overview of general education and distribution requirements for all bachelor's degree programs.

IND 101 Cornerstone A: Foundations or IND 301 Cornerstone B: Pathways
The cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

DEGREE-SPECIFIC REQUIREMENTS

Communications

IND 203 Professional Ethics

MAT 205 Discrete Structures

BUS 231 Business Data Literacy or MAT 201 Statistics

CORE REQUIREMENTS

▶ IT 211 Fundamentals of Programming

▶ CYS 220 Cloud Computing and Virtualization

▶ CYS 245 Introduction to Cybersecurity

▶ CYS 260 Governance, Legal and Compliance

▶ CYS 345 Cybersecurity Defense in Depth

▶ CYS 426 Cyber Attacks and Defense

▶ CYS 450 Security Focused Risk Management

▶ IT 250 Business Data Communications

▶ IT 361 Computer Operations and Operating Systems

▶ IT 380 Overview of Computer Security

▶ CYS 403 Network and Application Security

▶ IT 406 Computer Forensics

▶ IT 460 System Administration

CONCENTRATION REQUIREMENTS

▶ General Concentration
Up to 15 credits in Approved Technical Electives

▶ Cyber Operations
Minimum of 15 credits to include IT 313 Intermediate Programming, CJ 125 Introduction to Homeland Security, CYS 400 Reverse Engineering, CYS 470 Secure Software Development, CYS 475 Large-scale Cybercrime and Terrorism

CYS 496 Cybersecurity Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on page 34. Once you are enrolled, the My Academic Planner tool will specify how credits (transfer and remaining) apply.

Program Description

The Bachelor of Science in Cybersecurity program is aligned with the academic requirements for cybersecurity set by the National Security Agency (NSA) and Department of Homeland Security (DHS), and will provide students with the ability to enhance technical knowledge and skills in cybersecurity. The program is designed to prepare learners for cybersecurity-related jobs in the U.S. Cyber Command, the NSA's signal intelligence operations, the Federal Bureau of Investigation, law enforcement agencies, and corporate environments. As Excelsior is a Center for Academic Excellence in Cyber Defense (CAE CD), the program supports the belief of the NSA that cybersecurity should be integrated in all aspects of a person's career. The degree program will prepare the student to take several industry certification exams such as CISP, CEH, Security+, Network+, CHFI, SSCP, and ESCP. Typical occupational areas associated with cybersecurity include incident response analyst, cyber compliance analyst, cyber threat management, cyber network operations planner, cyber systems analyst, systems administrator, and cyber systems and operations engineer.

Of the total 120 credits for the Bachelor of Science in Cybersecurity, 15 must be earned at the upper level in the technology component.

The two options are **General Concentration** and concentration in **Cyber Operations**.

Program Educational Objectives

1. Apply general and discipline-specific concepts and methodologies to identify, analyze and solve problems in the cyber technology discipline.

2. Demonstrate an individual desire and commitment to remain technically current with, and adaptive to, changing technologies through continuous learning and self-improvement.

3. Demonstrate independent thinking, function effectively in team-oriented settings, and maintain a high level of performance in a professional/industrial environment.

4. Communicate effectively in a professional/industrial environment.

5. Perform ethically and professionally in business, industry and society.

6. Attain increasing levels of responsibility and leadership in the cyber technology field.

Program (Student) Outcomes

1. Describe defensive network architecture that use multiple layers of protection.

2. Analyze technologies and processes that monitor, maintain, and protect the data of an institution.

3. Evaluate and apply industry tools to respond to cyber incidents.

4. Create and disseminate cybersecurity reports to stakeholders.

5. Conduct risk and vulnerability assessments of existing and proposed security systems.

6. Develop and implement organizational cybersecurity policies and procedures.

7. Demonstrate the ability to understand professional, ethical, and social responsibility, including the effect of culture, diversity, and interpersonal relations.

8. Demonstrate proficiency in communicating technical information in formal reports, documentation, and oral presentations to users and information technology professionals.

9. Demonstrate a commitment to professional development and to continue to engage in lifelong learning.

Degree Requirements

The Bachelor of Science in Cybersecurity requires 120 semester hours of credit distributed as follows:

- ▶ **60 credits** minimum required in the arts and sciences component
- ▶ **52 credits** minimum required in the cybersecurity component with at least 15 credits at the upper level
- ▶ **8 credits** maximum allowed in the free elective component (to include **INL 102 Information Literacy**)

Arts and Sciences Component (60 credits)

The Bachelor of Science in Cybersecurity requires a minimum of 60 credits in the arts and sciences distributed as follows:

A. **Humanities and Social Sciences**
At least 24 credits must be earned in the humanities and social sciences and are distributed as follows:

1. Communications
At least 9 credits must be earned in communications courses, including 6 credits to satisfy the written English requirement, completed with a minimum grade of C **[ENG 101 English Composition, ENG 312 Professional and Technical Writing].** Courses in speech, written composition, technical writing, or similar courses in either written or oral communications are applicable toward the communications requirements.

2. Ethics
At least 3 credits must be earned in ethics with a minimum grade of C **[IND 203 Professional Ethics].**

3. Humanities Elective
At least 3 credits must be earned in a humanities elective. Humanities subjects include, but are not limited to, advanced writing, literature, foreign languages, religion, philosophy, art, and music.

4. Social Sciences/History
At least 9 credits must be earned in such subjects as sociology, economics, history, psychology, and anthropology.

B. **Natural Sciences/Mathematics**
At least 9 credits must be earned in natural sciences/mathematics and include 3 credits in a natural science and the following math courses:

- ▶ Discrete Math
[MAT 205 Discrete Structures]
- ▶ Statistics
[BUS 231 Business Data Literacy, MAT 201 Statistics]

Sample natural sciences subjects include biology, chemistry, geology, physics, and genetics.

C. **Arts and Sciences Electives**
At least 27 additional credits in any arts and sciences areas must be completed.

Cybersecurity Component (55 credits)
(15 credits at the upper level)

The Bachelor of Science in Cybersecurity requires a grade of C or better for applicable credit, and a minimum of 51 credits in the area of cybersecurity distributed as follows:

The following core requirements must be met:

- ▶ Programming
[IT 211 Fundamentals of Programming]
- ▶ Cloud Computing and Virtualization
[CYS 220 Cloud Computing and Virtualization]
- ▶ Introduction to Cybersecurity
[CYS 245 Introduction to Cybersecurity]
- ▶ Governance, Legal and Compliance
[CYS 260 Governance, Legal and Compliance]
- ▶ Cybersecurity Defense in Depth
[CYS 345 Cybersecurity Defense in Depth]
- ▶ Cyber Attacks and Defense
[CYS 426 Cyber Attacks and Defense]
- ▶ Security Focused Risk Management
[CYS 450 Security Focused Risk Management]
- ▶ Data Communications and Networking
[IT 250 Business Data Communications]
- ▶ Operating Systems
[IT 361 Computer Operations and Operating Systems]

- ▶ Overview of Computer Security
  [**IT 380 Overview of Computer Security**]
- ▶ Network and Application Security
  [**CYS 403 Network and Application Security**]
- ▶ Computer Forensics
  [**IT 406 Computer Forensics**]
- ▶ System Administration
  [**IT 460 System Administration**]
- ▶ Cybersecurity Capstone
  [**CYS 496 Cybersecurity Capstone**]

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

Concentrations

GENERAL CONCENTRATION

Recognizing that the cybersecurity field is continuously evolving, the Bachelor of Science in Cybersecurity program offers the general option concentration. This customizable concentration provides flexibility in designing students' area of specialization in order to meet ever-changing job demands and also to build upon student's current achievements. Students of this concentration can choose from approved technical electives to meet the degree requirements. Our courses cover a wide range of technical electives which help

students stay competitive in today's job market.

Requirements

- ▶ Up to 15 credits.

Concentration Requirements

- ▶ Approved technical electives

CYBER OPERATIONS

Cyber Operations as part of cybersecurity is defined as organized activities in cyberspace to gather, prepare, disseminate, report, or process information to achieve a goal (Godwin III; et al.). The Cyber Operations concentration in the cybersecurity degree provides the learner the ability to specialize their skills on the front line of cybersecurity. The courses selected prepare the students to handle cyber incidents and respond to incidents that happen as part of a cyber team.

Requirements

- ▶ Minimum of 15 credits.

Concentration Outcomes:

1. Identify fundamental security design principles that lead to system vulnerabilities.
2. Conduct exploits as part of an offensive cyber operation.
3. Apply fundamental security design principles during system design, development, and implementation to minimize vulnerabilities.

Concentration Requirements

- ▶ Programming
  [**IT 313 Intermediate Programming**]
- ▶ Introduction to Homeland Security
  [**CJ 125 Introduction to Homeland Security**]
- ▶ Reverse Engineering
  [**CYS 400 Reverse Engineering**]
- ▶ Secure Software Development
  [**CYS 470 Secure Software Development**]
- ▶ Large-scale Cybercrime and Terrorism
  [**CYS 475 Large-scale Cybercrime and Terrorism**]

Level Requirement

Of the 52 credits required for the cybersecurity component, at least 15 must be upper level. No upper-level credit is awarded for introductory coursework in computer languages. A course is generally considered upper level if it is offered at the junior or senior level and clearly not introductory in content. Courses taken at two-year institutions may not be used to satisfy upper-level requirements. The acceptance of coursework for credit toward the upper-level requirements is subject to faculty review.

A grade of "C" or higher is needed for all core requirements.

Free Elective Component (8 credits)

The Bachelor of Science in Cybersecurity allows room for up to 8 credits in free electives. Applied to this component is the 1 credit for the Excelsior University information literacy requirement [**INL 102 Information Literacy**]. See page 10 for more information about information literacy.

You may earn the remaining 7 credits in any field of college study, including professional or technical subjects as well as in the arts and sciences.

A maximum of 2 credits in physical education activity courses may be applied to the degree.

Degree-Specific Policies

Policies and procedures that apply specifically to the Bachelor of Science in Cybersecurity follow. All policies can be found in their entirety within the student policy section of the Excelsior University website.

Programming Language Cap

Excelsior University has placed a 9-credit cap on introductory programming language courses in the cybersecurity component, which includes the following languages:
- JAVA
- PYTHON
- Visual Basic
- C
- C++
- C#

No upper-level credit is awarded for coursework in introductory computer languages.

Credit for Vendor Examinations

Excelsior University awards credit for certain examinations from vendors/professional organizations such as Cisco, CompTIA, (ISC)[2], Microsoft, and the Project Management Institute. Subject to faculty approval, you may apply up to 21 credits from vendor certification examinations toward the Cybersecurity Component of your degree; additional credits from such examinations may apply toward the Free Elective Component. Please contact an academic advisor about the possibility of receiving college-level credit toward your degree requirements.

Time Limit on Courses and Exams

Due to the rapidly changing nature of technology, Excelsior University has established a time-related restriction on the application of credits applied to the Cybersecurity Component of the Bachelor of Science in Cybersecurity. To meet this requirement, relevant coursework must have been completed more recently than 5 years prior to entrance into the Bachelor of Science in Cybersecurity degree program. Please note that course content in these areas is subject to faculty approval. The time limit may be appealed by completing an appeal form which verifies appropriate and current professional and/or academic experience.

Time Limit for Degree Completion

Excelsior University degree programs are designed, within limits, to be completed at a student's own pace. However, students must make continuous progress toward their academic goals. Students will be dismissed if they do not complete the Bachelor of Science in Cybersecurity at the conclusion of 7 years from their entrance into the program. Students may seek an extension of the time limit by completing an appeal form, which will outline a plan for completion. Students must submit this appeal no less than one trimester before reaching the 7-year degree completion time limit.

BACHELOR OF SCIENCE IN
ELECTRICAL ENGINEERING TECHNOLOGY

124 CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 34 for an overview of general education and distribution requirements for all bachelor's degree programs.

IND 101 Cornerstone A: Foundations or **IND 301 Cornerstone B: Pathways**
The cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

DEGREE-SPECIFIC REQUIREMENTS

IND 203 Professional Ethics

Communications

MATHEMATICS COMPONENT (24 credits total)

▶ 12 credits at the level of College algebra or above, including Calculus I and II and Differential Equations **(MAT 220 Calculus I and MAT 221 Calculus II)**

NATURAL SCIENCE COMPONENT

▶ PHYS 201 Physics I	▶ PHYS 202 Physics I Lab or PHYS 203 Physics II Lab
▶ PHYS 203 Physics II	▶ CHE 101 Chemistry

LAB REQUIREMENT

▶ Seven Technology labs are required. Four must be from the following: DC Circuits, AC Circuits, Digital Electronics, Electronics I, Electronics II, Microprocessors. The other three must be in the concentration.

ELECTRICAL ENGINEERING TECHNOLOGY COMPONENT CORE REQUIREMENTS

▶ ELEC 152 Circuit Theory I	▶ ELEC 201 Digital Electronics
▶ ELEC 153 Circuit Theory II	▶ ELEC 202 Microprocessors
▶ ELEC 160 Electronics I	▶ Computer Programming
▶ ELEC 161 Electronics II	▶ Project Management

CONCENTRATION REQUIREMENTS
One of the following concentrations must be declared.

▶ Electronics
ELEC 331 Digital and Analog Communications, ELEC 306 Advanced Digital Design, IT 250 Business Data Communications, ELEC 321 Control Systems, ELEC 307 Microcontrollers

▶ Power Systems
ELEC 210 Programmable Logic Controllers, ELEC 360 Generation and Transmission of Electric Power, ELEC 350 Power Electronics, ELEC 345 Electrical Machines, ELEC 370 Instrumentation and Data Acquisition

ELEC 495 Integrated Technology Assessment Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on **page 34.** Once you are enrolled, the **My Academic Planner** tool will specify how credits (transfer and remaining) apply.

Program Description

The Bachelor of Science in Electrical Engineering Technology program focuses on preparing students for electrical and allied engineering technology positions in technology-related industries such as electronics, electrical power, semiconductors and computers, and nanotechnology. The program is designed specifically to advance job skills by ensuring a breadth of knowledge in technology concepts as well as a depth of understanding and skill in a chosen concentration area. Specifically, the program has three technical concentrations that provide students with a broad professional and technical foundation in the various functional components of electrical engineering technology. Each concentration is a group of related college-level courses within electrical engineering technology that combines depth and breadth of study in a recognized math/science-based technology discipline. The goal of the degree program in specific concentrations is to foster the ability of students to apply what they have learned within the degree program to the real-world contexts of a technology-based industry. The three concentrations are: **Electronics, Nanotechnology**, and **Power Systems**.

Of the total 124 credits for the Bachelor of Science in Electrical Engineering Technology, 16 must be earned at the upper level in the technology component.

Student progress within the degree program is based on the demonstration of proficiency, and is attainable through multiple, flexible pathways—offering course-based, prior learning assessment, and credit aggregation pathways to degree completion. In this way, the program is customizable and tailored to each student's need and learning style.

Specialized Accreditation/Recognition: *The Bachelor of Science in Electrical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET,* www.abet.org.

Program Educational Objectives

As an Excelsior University bachelor's-level electrical engineering technology graduate, within a few years of graduation, you are expected to:

1. Apply general and discipline-specific concepts and methodologies to identify, analyze, and solve technical problems in the electrical discipline.

2. Demonstrate an individual desire and commitment to remain technically current with, and adaptive to, changing technologies through continuous learning and self-improvement.

3. Demonstrate independent thinking, function effectively in team-oriented settings, and maintain a high level of performance in a professional/industrial environment.

4. Communicate effectively in written and oral forms in a professional/industrial environment.

5. Perform ethically and professionally in business, industry, and society.

6. Demonstrate and utilize leadership principles in the field of electrical engineering technology.

Program (Student) Outcomes

Upon successful completion of the Excelsior University Bachelor of Science in Electrical Engineering Technology program, the graduate will be able to:

1. Apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the electrical engineering technology discipline.

2. Demonstrate an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the electrical engineering technology discipline.

3. Apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and be able to identify and use appropriate technical literature.

4. Conduct standard tests, measurements, and experiments and be able to analyze and interpret the results to improve processes.

5. Function effectively as a member as well as a leader on technical teams, and apply project management techniques in team project activities.

Degree Requirements

The Bachelor of Science in Electrical Engineering Technology requires a minimum of **124 credits** distributed as follows:

▶ **60 credits** minimum required in the arts and sciences component

▶ **57 credits** minimum required in the electrical engineering technology component

▶ **7 credits** required in the free elective component (to include **IND 101/301 Cornerstone** and **INL 102 Information Literacy**)

Arts and Sciences Component (60 credits)

The distribution requirement ensures basic college-level competence in three arts and sciences areas: humanities, social sciences/history, and natural sciences/mathematics.

A. **Humanities and Social Sciences/History**
At least 24 credits must be earned in the humanities and social sciences/history and are distributed as follows:

1. Communications
At least 9 credits must be earned in communications courses, including 6 credits to satisfy the written English requirement, completed with a minimum grade of C **[ENG 101 English Composition, ENG 312 Scientific and Technical Writing]**. Courses in speech, written composition, technical writing, or similar courses in either written or oral communications are applicable toward the communications requirement.

2. Ethics
At least 3 credits must be earned in ethics with a minimum grade of C. **[IND 203 Professional Ethics]**.

3. Humanities Electives
At least 3 credits must be earned in a humanities elective such as art, music, literature, foreign language, philosophy, and speech.

4. Social Sciences/History
At least 9 credits must be earned in subjects such as sociology, economics, history, psychology, and anthropology.

B. **Mathematics and Natural Sciences**
Students are required to complete at least 24 semester hours of credit in the combined areas of mathematics and natural sciences, with at least 12 credit hours in math at the level of college algebra or above **[MAT 116 Precalculus Algebra, MAT 118 Trigonometry]**, including Calculus I **[MAT 220 Calculus I]** and Calculus II **[MAT 221 Calculus II]**, and Differential Equations.

There is no minimum credit hour requirement for natural sciences. Rather, students must complete specific required courses in the natural sciences: Physics I , Physics II, and Chemistry I (with at least one physics lab) **[PHYS 201 Physics I, PHYS 203 Physics II, PHYS 202 Physics I Laboratory, PHYS 204 Physics II Laboratory, CHE 101 General Chemistry I or equivalent]**.

C. **Arts and Sciences Electives**
The remaining 12 credits needed to satisfy the 60-credit requirement may be earned in any arts and sciences subjects.

Electrical Engineering Technology Component (57 credits)

The electrical engineering technology component ensures college-level competence in the major functional areas of electrical engineering technology. A grade of C or better is required for applicable credit.

Core Requirements

The following core requirements must be completed:

- ▶ DC Circuits
  [**ELEC 152 Circuit Theory I**]
- ▶ AC Circuits
  [**ELEC 153 Circuit Theory II**]
- ▶ Electronics I
  [**ELEC 160 Electronics I**]
- ▶ Electronics II
  [**ELEC 161 Electronics II**]
- ▶ Digital Electronics
  [**ELEC 201 Digital Electronics**]
- ▶ Microprocessors
  [**ELEC 202 Microprocessors**]
- ▶ Computer Programming
  [**IT 210 Object-Oriented Programming** or **IT 240 Introduction to Programming**]
- ▶ Project Management
  [**IT 390 Project Management**]
- ▶ Integrated Technology Assessment (capstone)
  [**ELEC 495 Integrated Technology Assessment**]—The capstone course is required and must be taken through Excelsior University, and completed with a grade of C or above. It cannot be transferred in.
- ▶ Four labs from the following core courses must be completed:
  - ▶ DC Circuits
  - ▶ AC Circuits
  - ▶ Electronics I
  - ▶ Electronics II
  - ▶ Digital Electronics
  - ▶ Microprocessors

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

Concentration Requirements

One of the following concentrations must be declared:

- ▶ **Electronics**
- ▶ **Power Systems**

Concentrations

ELECTRONICS

A concentration in Electronics focuses on training and preparing students to stay up-to-date with the rapidly changing electronics hardware and software technology environment. This concentration is a technical discipline centered on the analysis, design, assembly, testing, upgrading, and maintenance of electronics, computers, and communications hardware. The concentration also emphasizes the analysis, design, development, operation, and troubleshooting of control systems, software, and computer-based process controls. This concentration's outcomes are geared toward providing students with a foundational knowledge of electronics hardware and

software in a wide variety of subject areas and preparing students for positions including circuit design engineer, hardware technician, communications engineer, software developer, or network engineer. Upon successful completion of the Excelsior University Bachelor of Science in Electrical Engineering Technology with an Electronics concentration, the student will be able to:

1. Analyze and design different types of digital and analog electronic communication systems.

2. Design, integrate, and analyze digital and analog control systems.

3. Use high-level computer languages to develop techniques for designing and modeling electronic systems.

Requirements

Minimum of 15 credits, including 9 upper-level. At least three courses must have labs.

Concentration Requirements

▶ Electronic Communications
[**ELEC 331 Digital and Analog Communications**]

▶ Advanced Digital Electronics
[**ELEC 306 Advanced Digital Design**]

▶ Data Communications
[**IT 250 Business Data Communications**]

▶ Control Systems
[**ELEC 321 Control Systems**]

▶ Microprocessors II
[**ELEC 307 Microcontrollers**]

POWER SYSTEMS

A concentration in Power Systems focuses on training and preparing students to stay up-to-date with the rapidly modernizing power electronics and power systems technology environment. This concentration is a technical discipline centered on the analysis, design, assembly, testing, upgrading, and maintenance of DC/AC power conversion systems, electric power generation and distribution, and power control technologies.

The concentration also emphasizes the analysis, design, development, operation, and troubleshooting of single-phase and three-phase electric motors and electric machines, data acquisition, and instrumentation. This concentration's outcomes are geared towards providing students with a foundational knowledge of electric power systems in a wide variety of subject areas and preparing students for positions including power electronics design engineer, electrical power generation and grid maintenance technician, HVDC maintenance engineer, or instrumentation engineer. Upon successful completion of the Excelsior University Bachelor of Science in Electrical Engineering Technology with a Power Systems concentration, the student will be able to:

1. Identify, analyze, and discuss methods used for generation, transmission, and control of electric power.

2. Design, integrate, and analyze DC/AC power conversion systems and related instrumentation.

3. List and describe techniques for analysis and design of power electronics systems.

Requirements

Minimum of 15 credits, including 9 upper-level. At least three courses must have labs.

Concentration Requirements

▶ Programmable Logic Controllers
[**ELEC 210 Programmable Logic Controllers**]

▶ Generation and Transmission of Electric Power [**ELEC 360 Generation and Transmission of Electric Power**]

▶ Power Electronics
[**ELEC 350 Power Electronics**]

▶ Electrical Machines/Energy Conversion
[**ELEC 345 Electrical Machines**]

▶ Instrumentation and Data Acquisition
[**ELEC 370 Instrumentation and Data Acquisition**]

Electrical Engineering Technology Electives

Any remaining credits in the electrical engineering technology component may be satisfied by approved electrical/computer technology electives. Please note that only two of these electives may be approved information or cyber technology courses. Only one programming course can apply toward the degree. Since computer programming is a core requirement, additional computer programming courses will not apply toward the degree. Please check with your academic advisor for approval prior to registering for electrical engineering technology electives.

Laboratory Requirement

The degree requires at least eight laboratories. Of those eight, one physics laboratory is required in the natural sciences/mathematics area and the remaining seven must be in the electrical engineering technology component. Of the seven technology labs, four must be in the following electrical engineering technology core content areas: DC Circuits, AC Circuits, Electronics I, Electronics II, Digital Electronics, and Microprocessors. The remaining three laboratories must be in your area of concentration.

Students must be able to demonstrate competence in the use of standard design practices, tools, techniques, and computer hardware and software appropriate to the electrical discipline and the program goals.

Level Requirement

Of the 57 credits required for the electrical engineering technology component, at least 16 must be upper level. Nine of the upper-level credits must be in the area of concentration. A course is generally considered upper level if it is offered at the junior or senior level and clearly not introductory in content. Courses taken at two-year institutions may not be used to satisfy upper-level requirements. No upper-level credit is awarded for introductory coursework in computer languages. The

acceptance of coursework for credit toward the upper-level requirement is subject to faculty review.

A grade or "C" or higher is needed for all core requirements.

Free Elective Component (7 credits)

The Bachelor of Science in Electrical Engineering Technology allows room for up to 7 credits in free electives. Applied to this component is the 1 credit for the Excelsior University information literacy requirement [**INL 102 Information Literacy**]. See page 10 or refer to our website for more information about information literacy.

You may earn the remaining 6 credits in any field of college study, including professional or technical subjects as well as in the arts and sciences. A maximum of 2 credits in physical education activity courses may be applied to the degree.

Degree-Specific Policies

Policies and procedures that apply specifically to the Bachelor of Science in Electrical Engineering Technology follow. All policies can be found in their entirety within the student policy section of the Excelsior University website.

Time Limit on Courses and Exams

Due to the rapidly changing nature of technology, Excelsior University has established a time-related restriction on the application of certain subject areas meeting requirements in the Bachelor of Science in Electrical Engineering Technology. Previous computer- and electrical/electronic-related coursework must have been completed more recently than 10 years prior to entrance into the Bachelor of Science in Electrical Engineering Technology (except DC and AC Circuits). Please note that course content in these areas is subject to faculty approval. The time limit may be appealed with verification of appropriate and current professional and/or academic experience.

Time Limit for Degree Completion

Excelsior University degree programs are designed, within limits, to be completed at a student's own pace. However, students must make continuous progress toward their academic goals. Students will be dismissed if they do not complete the Bachelor of Science in Electrical Engineering Technology at the conclusion of 10 years from their entrance into the program. Students may seek an extension of the time limit by completing an appeal form, which will outline a plan for completion. Students must submit this appeal no less than one trimester before reaching the 10-year degree completion time limit.

Course Materials Policy

The faculty requires that students submit course materials for all math, science, and technology component courses taken outside of Excelsior University after enrollment in the program. Course materials should include graded homework, quizzes, tests, lab reports, papers, and other student work as appropriate. Course outlines/syllabi should be included as well. This material is required for curriculum review and accreditation purposes. Once we have received your transcript indicating completion of a course and the corresponding student work materials, credit for the course will be added to your evaluation.

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BACHELOR OF SCIENCE IN
INFORMATION TECHNOLOGY

120 CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 34 for an overview of general education and distribution requirements for all bachelor's degree programs.

IND 101 Cornerstone A: Foundations or IND 301 Cornerstone B: Pathways
The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

DEGREE-SPECIFIC REQUIREMENTS

IND 203 Professional Ethics

Communications

MAT 205 Discrete Structures

BUS 231 Business Data Literacy or MAT 201 Statistics

One additional math course at the level of College Algebra or above.

INFORMATION TECHNOLOGY COMPONENT

Core Requirements

▶ IT 211 Fundamentals of Programming
▶ IT 313 Intermediate Programming
▶ IT 250 Business Data Communications
▶ IT 361 Computer Organization and Operating Systems
▶ IT 370 Database Management Systems

▶ IT 371 Web Design and Development
▶ IT 375 Human-Computer Interactive Design
▶ IT 380 Overview of Computer Security
▶ IT 390 Project Management
▶ IT 460 System Administration

CONCENTRATION REQUIREMENTS
One of the following concentrations must be declared.

▶ General (15 credits in approved IT electives)

▶ Cybersecurity Technology
IT 406 Computer Forensics, CYS 426 Cyber Attacks and Defenses, CYS 455 Business Continuity, CYS 403 Network and Application Security, CYS 401 Organizational Information Security

▶ Network Operations
IT 422 Advanced Networking, IT 424 Network Operating Systems, IT 426 Wireless Technology, IT 428 Telecommunications Management, IT 430 Network System Design and Management Security

IT 495 Integrated Technology Assessment Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on page 34. Once you are enrolled, the My Academic Planner tool will specify how credits (transfer and remaining) apply.

Program Description

The Bachelor of Science in Information Technology program focuses on preparing students to stay at the forefront of the rapidly changing technical environment, and training students to be the leaders in the Information Technology field. To accomplish this goal, the program is centered on the fundamental concepts, skills, applications, and practices across a wide variety of information technology domains, including software and web development, computer systems, database management, data communication, information security, and project management. Built upon this core knowledge foundation, our program has identified two technical concentrations: **Cybersecurity Technology,** and **Network Operations.** These concentrations represent the high-demand job areas in the IT industry, and equip students with in-depth specialties in order for them to excel in the workplace. To allow students the flexibility to design a study plan that meets their career goals, a **General Option** concentration is also available, in which students can compile their own course milestones toward the degree.

Of the total 120 credits for the Bachelor of Science in Information Technology, 15 must be earned at the upper level in the technology component.

In addition to the necessary technical knowledge and skills, the strong liberal arts component of our program helps students maintain academic breadth and prepare students with quantitative, communication, and interpersonal skills, as well as with an awareness of business ethics and social responsibility. Our goal is to prepare students to be critical thinkers and problem solvers, and to become committed lifelong learners.

Student progress within the degree program is based on the demonstration of proficiency, and is attainable through multiple, flexible pathways—offering course-based, direct assessment, and credit aggregation pathways to degree completion. In this way, the program is customizable and tailored to each student's need and learning style.

Specialized Accreditation/Recognition: *The Bachelor of Science in Information Technology is accredited by the Computing Accreditation Commission of ABET,* www.abet.org.

Program Educational Objectives

As an Excelsior University bachelor's-level information technology graduate, within a few years of graduation, you are expected to:

1. Apply general and discipline-specific concepts and methodologies to identify, analyze, and solve technical problems in the information technology discipline.

2. Demonstrate an individual desire and commitment to remain technically current with, and adaptive to, changing technologies through continuous learning and self-improvement.

3. Demonstrate independent thinking, function effectively in team-oriented settings, and maintain a high level of performance in a professional/industrial environment.

4. Communicate effectively in a professional/industrial environment.

5. Perform ethically and professionally in business, industry, and society.

6. Demonstrate and utilize leadership principles in the field of information technology.

Program (Student) Outcomes

Upon successful completion of the Excelsior University Bachelor of Science in Information Technology program, the graduate will be able to:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

3. Communicate effectively in a variety of professional contexts.

4. Recognize professional responsibilities and make informed judgements in computing practice based on legal and ethical principles.

5. Function effectively as a member or leader of a team engaged in activities appropriate to information technology.

6. Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation, and administration of computing-based systems.

Degree Requirements

The Bachelor of Science in Information Technology requires 120 semester hours of credit distributed as follows:

▶ **60 credits** minimum required in the arts and sciences.

▶ **48 credits** minimum required in the information technology component with at least 15 credits at the upper level.

▶ **12 credits** required in the free elective component (to include **INL 102 Information Literacy** and **IND 101/301 Cornerstone course**).

Arts and Sciences Component (60 credits)

The Bachelor of Science in Information Technology requires a minimum of 60 credits in the arts and sciences distributed as follows:

A. **Humanities and Social Sciences**
At least 24 credits must be earned in the humanities and social sciences and are distributed as follows:

1. Communications
At least 9 credits must be earned in communications courses, including 6 credits to satisfy the written English

requirement, completed with a minimum grade of C [**ENG 101 English Composition, ENG 312 Professional and Technical Writing**]. Courses in speech, written composition, technical writing, or similar courses in either written or oral communications are applicable toward the communications requirements.

2. Ethics
At least 3 credits must be earned in ethics with a minimum grade of C [**IND 203 Professional Ethics**].

3. Humanities Electives
At least 3 credits must be earned in humanities electives. Humanities subjects include, but are not limited to, advanced writing, literature, foreign languages, religion, philosophy, art, and music.

4. Social Sciences/History
At least 9 credits must be earned in such subjects as sociology, economics, history, psychology, and anthropology.

B. **Natural Sciences/Mathematics**
At least 12 credits must be earned in the natural sciences/mathematics and in include:

1. 3 credits in a natural science

2. **MAT 205 Discrete Structures**

3. **BUS 231 Business Data Literacy** or **MAT 201 Statistics**

4. One additional Mathematics course at the level of College Algebra or above.

C. **Arts and Sciences Electives**
At least 24 additional credits in any arts and sciences areas must be completed.

Information Technology Component (48 credits)

The Bachelor of Science in Information Technology requires a grade of C or better for applicable credit, and a minimum of 48 credits in the area of information technology distributed as follows:

Core Requirements

The following core requirements must be met:

▶ Fundamentals of Programming

[IT 211 Fundamentals of Programming]

▶ Intermediate Programming
[IT 313 Intermediate Programming]

▶ Data Communications and Networking
[IT 250 Business Data Communications]

▶ Operating Systems and Computer System Architecture
[IT 361 Computer Organization and Operating Systems]

▶ Database Concepts
[IT 370 Database Management Systems]

▶ Web Design and Development
[IT 371 Web Design and Development]

▶ Human-Computer Interaction
[IT 375 Human-Computer Interactive Design]

▶ Overview of Computer Security
[IT 380 Overview of Computer Security]

▶ Project Management
[IT 390 Project Management]

▶ System Administration
[IT 460 System Administration]

▶ Integrated Technology Assessment Capstone
[IT 495 Integrated Technology Assessment (capstone)]—The capstone course is required and must be taken through Excelsior University. It cannot be transferred in.

Level Requirement

Of the 48 credits required for the information technology component, at least 15 must be upper level. No upper-level credit is awarded for introductory coursework in computer languages. A course is generally considered upper level if it is offered at the junior or senior level and clearly not introductory in content. Courses taken at two-year institutions may not be used to satisfy upper-level requirements. The acceptance of coursework for credit toward the upper-level requirement is subject to faculty review.

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing INL 102 Information Literacy within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing IND 101 Cornerstone A: Foundations or IND 301 Cornerstone B: Pathways with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

Concentrations

One of the following concentrations must be declared. See below for specific requirements for each Information Technology concentration. A minimum of 15 credits is required for each concentration.

▶ **Cybersecurity Technology**

▶ **General Option**

▶ **Network Operations**

CYBERSECURITY TECHNOLOGY

The Cybersecurity Technology concentration focuses on providing broad coverage on the technical, operational, and legal dimensions of cybersecurity. Students of this concentration will attain a holistic view of implementing effective cybersecurity programs appropriate to the environment. The curriculum focuses on areas such as organizational, network, application security issues as well as penetration testing, incidence response, and digital forensics. This will enable students to utilize a variety of cybersecurity tools and techniques in protecting information assets in organizations. The Cybersecurity Technology concentration will prepare students to pursue careers in cybersecurity in positions such as security analyst, security architect, IT security coordinator, data protection analyst, incident responder, or penetration tester. Upon successful completion of the Excelsior University Bachelor of Science in Information Technology with a concentration in Cybersecurity Technology, the

learner will be able to:

1. Apply cybersecurity best practices in managing various computing environments comprised of heterogeneous devices and services.
2. Define and protect data assets in organizations by mitigating risks and integrating business continuity.
3. Identify and analyze the impact of large scale cybercrime incidents on international security and terrorism.

Concentration Requirements

Minimum of 15 credits

▶ Computer Forensics
  [IT 406 Computer Forensics]
▶ Cyber Attacks and Defenses
  [CYS 426 Cyber Attacks and Defenses]
▶ Business Continuity
  [CYS 455 Business Continuity]
▶ Network and Application Security
  [CYS 403 Network and Application Security]
▶ Organizational Information Security
  [CYS 401 Organizational Information Security]

GENERAL OPTION

Recognizing that the Information Technology field is continuously evolving, the Bachelor of Science in Information Technology program offers the general option concentration. This customizable concentration provides flexibility in designing students' area of focus in order to meet ever-changing job demands and also to build upon students' current achievements. Students of this concentration can choose from approved IT electives to meet the degree requirements. Our course offerings cover a wide range of IT specialties, which help students stay competitive in today's job market.

Concentration Requirements

▶ Approved IT Electives

NETWORK OPERATIONS

The Network Operations concentration focuses on providing students with the critical knowledge and skills in telecommunications and networking, and preparing students for careers including, but not limited to, network technician, network administrator, network engineer, and network architect. Our curriculum incorporates courses in network design and network project management, network operating systems and network administration, wireless systems, RFID technology, and network security, which is designed to guide students through the process of planning, designing, managing, and securing network and telecommunications systems. Upon successful completion of the Excelsior University Bachelor of Science in Information Technology with a Network Operation concentration, the student will be able to:

1. Apply advanced networking techniques and network operating system principles toward the operation of a robust network.
2. Integrate wireless technology solutions into the network infrastructure.
3. Apply telecommunication management principles into the management of networks.

Concentration Requirements

Minimum of 15 credits

▶ Advanced Networking
  [IT 422 Advanced Networking]
▶ Network Operating Systems
  [IT 424 Network Operating Systems]
▶ Wireless Technology
  [IT 426 Wireless Technology]
▶ Telecommunication Management
  [IT 428 Telecommunications Management]
▶ Network Systems Design and Management
  [IT 430 Network Systems Design and Management]

Free Elective Component (12 credits)

The Bachelor of Science in Information Technology allows room for up to 12 credits in free electives. Applied to this component is the 1 credit for the Excelsior University

information literacy requirement [**INL 102 Information Literacy**]. See or visit our website for more information about information literacy.

You may earn the remaining 11 credits in any field of college study, including professional or technical subjects as well as in the arts and sciences.

A maximum of 2 credits in physical education activity courses may be applied to the degree.

Degree-Specific Policies

Policies and procedures that apply specifically to the Bachelor of Science in Information Technology follow. All policies can be found in their entirety within the student policy section of the Excelsior University website.

Programming Language Cap

Excelsior University has placed a 9-credit cap on introductory programming language courses in the information technology component, which includes the following languages:

- ▶ JAVA
- ▶ PYTHON
- ▶ Visual Basic
- ▶ C
- ▶ C++
- ▶ C#

No upper-level credit is awarded for coursework in introductory computer languages.

Credit for Technical Examinations

Excelsior University awards credit for certain examinations from vendors/professional organizations such as Cisco, CompTIA, (ISC)[2], Microsoft, and the Project Management Institute. Subject to faculty approval, you may apply up to 21 credits from vendor certification examinations toward the Information Technology Component of your degree; additional credits from such examinations may apply toward the Free Elective Component. Please contact an academic advisor about the possibility of receiving college-level credit toward your degree requirements.

Time Limit on Courses and Exams

Due to the rapidly changing nature of technology, Excelsior College has established a time-related restriction on the application of credits applied to the Information Technology Component of the Bachelor of Science in Information Technology. To meet this requirement, relevant coursework must have been completed more recently than 5 years prior to entrance into the Bachelor of Science in Information Technology degree program. Please note that course content in these areas is subject to faculty approval. The time limit may be appealed by completing an appeal form which verifies appropriate and current professional and/or academic experience.

Time Limit for Degree Completion

Excelsior College degree programs are designed, within limits, to be completed at a student's own pace. However, students must make continuous progress toward their academic goals. Students will be dismissed if they do not complete the Bachelor of Science in Information Technology at the conclusion of 7 years from their entrance into the program. Students may seek an extension of the time limit by completing an appeal form, which will outline a plan for completion. Students must submit this appeal no less than one trimester before reaching the 7-year degree completion time limit.

Course Materials Policy

The faculty requires that students submit course materials for all math, science, and technology component courses taken outside of Excelsior College after enrollment in the program. Course materials should include graded homework, quizzes, tests, lab reports, papers, and other student work as appropriate. Course outlines/syllabi should be included as well. This material is required for curriculum review and accreditation purposes. Once we have received your transcript indicating completion of a course and the corresponding student work materials, credit for the course will be added to your evaluation.

Bachelor of Science in
LIBERAL ARTS

120
CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 34 for an overview of general education and distribution requirements for all bachelor's degree programs.

IND 101 Cornerstone A: Foundations or **IND 301 Cornerstone B: Pathways**
The cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

Ethics

DISTRIBUTION REQUIREMENT

▶ 33 credit minimum of which 12 credits are required in any two different arts and sciences distribution areas and 9 in the remaining distribution area: humanities, social science/history, and natural science/mathematics.

DEGREE-SPECIFIC REQUIREMENTS

OPTIONAL CONCENTRATION REQUIREMENTS

▶ **Logistics Operations Management** (18 credits, with 9 upper level)
BUS 381 Transportation, Warehousing and Distribution, BUS 440 Supply Chain Management, BUS 443 Lean Logistics. **Additional Credits in:** Procurement, Purchasing, Inventory Management, Operations Management, Project Management, Quality Control and other related courses as approved.

LA 498 Liberal Arts Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on **page 34.** Once you are enrolled, the **My Academic Planner** tool will specify how credits (transfer and remaining) apply.

Program Description

Students in the Bachelor's in Liberal Arts degrees explore the full breadth of the arts and sciences while demonstrating competency in critical 21st century skills most desired by employers. The degree programs stress intellectual development and multidisciplinary exploration of the critical issues and values inherent in the human experience, equipping students for career advancement or graduate school options. Students who choose to pursue the general liberal arts degrees do not specialize; rather, they select from a vast menu of courses that prompt students to ask questions about themselves, their history, their culture, their values, and their future and to consider whether a liberal education can, perhaps, release us from preconceived notions and unexamined attitudes. The general Liberal Arts degrees are popular with our students because they offer the most flexible approach to degree completion using many different credit sources. They are an excellent choice for students who would like to investigate multiple opportunities while developing the skills and background necessary for a personally, socially, and professionally fulfilling life.

Of a total of 120 degree credits, Bachelor of Science students must complete 60 credits in the arts and sciences. The remaining credits may be a combination of applied professional and additional arts and sciences. At least 30 of the degree credits must be at the upper level, 21 of which must be in the Arts and Sciences.

Nine upper level credits are required for the Logistics and Operations management concentration.

Program Outcomes

1. Articulate complex concepts to a targeted audience in written and oral form.
2. Analyze the influence of cultural diversity when addressing global issues.
3. Collaborate within a team to solve inter-disciplinary problems or achieve a common goal.
4. Evaluate perspectives of an ethical dilemma and present evidence-based solutions.
5. Develop a plan that integrates academic and professional experiences for achieving career goals.

Degree Requirements

Arts and Sciences (60 credits)

Required credits are distributed as follows:

A. **Written English Requirement:** 6 credits (minimum grade of C required)

B. **Distribution requirement:** 33 credit minimum of which 12 credits are required in any two different arts and sciences distribution areas and 9 in the remaining distribution area: humanities, social science/history, and natural science/mathematics.

Within the 33 total credits, the humanities distribution must include at least 2 credits in ethics with a minimum grade of C, and at least one 3-credit course in a humanities discipline. At least 2 credits must be in college-level mathematics and 2 credits must be in the natural sciences (see for details).

C. **Capstone Requirement:** 3 credits
This requirement may be satisfied by completion of one of **LA 498 Liberal Arts Capstone**. This requirement must be satisfied at Excelsior University and cannot be transferred in. A grade of C or better is required to pass the capstone requirement.

D. **Additional Arts and Science Electives**
24 credits in arts and sciences courses of your choosing.

Other Requirements (60 credits)

Required credits are distributed as follows:
- **INL 102 Information Literacy:** 1 credit
- **Applied Professional and/or Additional Arts and Sciences Credits:** 59 credits

Concentration (Optional)

LOGISTICS OPERATIONS MANAGEMENT

The Logistics Operations Management concentration is designed for students who want to enhance their skills for career advancement and who want to add a credential to their BS degree. The concentration requires 18 credits of coursework. All credits for the degree can be transferred in except for a 3-credit capstone requirement, which must be met by completion of an Excelsior University course.

In addition to the BS degree outcomes, Logistics Operations Management students will demonstrate the following concentration outcomes:

1. Solve inventory control, facilities planning, warehousing, and distribution problems
2. Analyze logistics, supply chain, and project management operations
3. Prioritize cost reduction, risk, and maximized profits for logistics operations
4. Integrate multidimensional methods to solve logistics problems
5. Evaluate the design and implementation of supply chain systems

A minimum of 18 credits, with nine at the upper level, and a 2.0 GPA are required. All professional Logistics courses must be taken within 15 years of enrollment.

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

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Bachelor of Science in
NATIONAL SECURITY

120 CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 34 for an overview of general education and distribution requirements for all bachelor's degree programs.

IND 101 Cornerstone A: Foundations or IND 301 Cornerstone B: Pathways
The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

Ethics

DEGREE-SPECIFIC REQUIREMENTS

BNS 101 Introduction to National Security

BNS 301 National Security Ethics and Diversity

POL 351 War & Peace after Cold War

BNS 303 Comparative National Security Analysis

CONCENTRATION OPTIONS

▶ Topics in National Security

▶ Intelligence & Security Analysis

BNS 498 National Security Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on page 34. Once you are enrolled, the My Academic Planner tool will specify how credits (transfer and remaining) apply.

Program Description

The Bachelor of Science in National Security degree prepares students for employment and advancement in the diverse and challenging national security arena. The program is designed to serve government employees who are in the military, or are serving the nation in the Defense, State, Agriculture, Commerce, Education, Energy, or Veterans Affairs departments, to name a few. National security is an interagency responsibility and a field that broadly affects the life of the nation. This interdisciplinary and flexible degree provides a broad education to enhance students' ability to analyze the security strategies and policies of the United States and other leading nation-states, while learning how the components of national power are developed and used for strategic advantage in the highly competitive international realm. By analyzing case studies, real-world scenarios, and ethical dilemmas, students will address national security at all levels. Learners will evaluate strategic policy; they will research topics, analyze arguments, synthesize their own ideas, and substantiate policy arguments; and, they will explore key concepts and trends in 21st century global security. This is the degree you should pursue to grow as a national security professional. The National Security degree has two concentrations: Intelligence and Security Analysis, and Topics in National Security. The Topics concentration provides students with infinite possibilities to build a degree program that meets their individual and professional needs.

Of the 120 credits for the Bachelor of Science in National Security, a total of 30 must be earned at the upper level (21 credits in the arts and sciences and 9 in electives). As part of these credits, for the core component of this degree, a minimum of 33 credits must be earned in the field of National Security, of which 18 must be at the upper level. A minimum GPA of 2.0 is required in the major.

Program Outcomes

Students who successfully complete the Bachelor of Science in National Security will be able to:

1. Describe the interdisciplinary character of national security (e.g., economics, history, political science, public administration, psychology, sociology).

2. Examine the use and components of national power (e.g., economic, military, social cohesion, quality of leadership and diplomacy, etc.)

3. Evaluate U.S. and other nation-states' national security strategies and policies.

4. Analyze ethical issues in the field of national security.

5. Deliver written communication with appropriate content, organization, syntax, mechanics, and style for the audience and purpose (GECC 1.2).

6. Pursue national security career planning that incorporates your interests, values, experiences, and analytic works (aligns to GECC 7.1 and GECC 7.2).

Core Requirements

A. **BNS 101 Introduction to National Security**

B. **BNS 301 National Security Ethics and Diversity** (with a grade of C or better)

C. **POL 351 War and Peace After the Cold War**

D. **BNS 303 Comparative National Security Analysis**

E. **BNS 498 National Security Capstone,** must be completed with a grade of C or better.

Concentrations

18 credits in one of the following areas:

TOPICS IN NATIONAL SECURITY

Courses selected with assistance of academic advisor and approved by faculty program director.

INTELLIGENCE AND SECURITY ANALYSIS

▶ **BNS 305 Cybersecurity**

▶ **BNS 307 Intelligence in National Security**

▶ **POL 320 The Geopolitics of Energy and Global Climate Change**

- **HEM 460 Infrastructure Security and Policy**
- **HEM 350 International Terrorism**
- **HEM 450 Counterterrorism**

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

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Bachelor of Science in
NUCLEAR ENGINEERING TECHNOLOGY

124 CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 34 for an overview of general education and distribution requirements for all bachelor's degree programs.

IND 101 Cornerstone A: Foundations or IND 301 Cornerstone B: Pathways
The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

IND 203 Professional Ethics

DEGREE-SPECIFIC REQUIREMENTS

Communications

Physical Sciences
PHYS 201 Physics I, PHYS 202 Physics I Lab, PHYS 203 Physics II, PHYS 204 Physics II Lab, CHE 101 Chemistry I, CHE 101 L Chemistry I Lab, NUC 245 Thermodynamics, NUC 246 Thermodynamics Lab (if transferring in Thermodynamics without a Lab), NUC 240 Atomic and Nuclear Physics

Mathematics
12 credits at the level of College algebra or above, including Calculus I and II (MAT 220 and 221 Foundations of Technology Problem Solving I and II)

NUCLEAR ENGINEERING TECHNOLOGY COMPONENT CORE REQUIREMENTS

▶ IT 221 Introduction to Computers

▶ IT 390 Project Management

▶ NUC 210 Health Physics and Radiation Protection

▶ NUC 211 Radiation Measurement Lab

▶ NUC 250 Introduction to Heat Transfer and Fluid Mechanics

▶ NUC 255 Electrical Theory

▶ NUC 260 Power Plant Components

▶ NUC 271 Fundamentals of Reactor Safety

▶ NUC 323 Material Science

▶ NUC 330 Reactor Core Fundamentals

▶ NUC 350 Plant Systems Overview

CONCENTRATION REQUIREMENTS

▶ General: Up to 15 credits in Free Electives

▶ Nuclear Leadership: BUS 311 Organizational Behavior, BUS 452 Business Leadership, NUC 280 Leading Change in the Nuclear Industry, NUC 285 Leadership Communication in the Nuclear Industry, NUC 360 Nuclear Leadership-Leadership Courage/Risk Management

▶ Nuclear Cybersecurity: IT 380 Overview of Computer Security, CYS 260 Governance, Legal and Compliance, CYS 350 Cybersecurity Defense in Depth for the Nuclear Industry, CYS 455 Business Continuity, CYS 465 Cybersecurity Investigation and Case Studies for the Nuclear Industry

NUC 495 Integrated Technology Assessment BNX
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on page 34. Once you are enrolled, the My Academic Planner tool will specify how credits (transfer and remaining) apply.

Program Description

The Bachelor of Science in Nuclear Engineering Technology program focuses on preparing students for technical positions in the nuclear industry. The program is designed specifically to advance job skills by ensuring a breadth of knowledge in nuclear engineering technology concepts. The program emphasizes the practical applications of engineering technology principles related to the nuclear industry. The program provides students with knowledge in areas such as reactor operations, health physics, quality assurance, chemistry, and instrumentation and control related to the nuclear engineering technology field. The goal of the degree program is to foster the ability of students to apply what they have learned to the real-world contexts of the nuclear industry.

Student progress within the degree program is based on the demonstration of proficiency, and is attainable through multiple, flexible pathways —offering course-based, prior learning assessment, and credit aggregation pathways to degree completion. In this way, the program is customizable and tailored to each student's need and learning style.

Of the total 124 credits for the Bachelor of Science in Nuclear Engineering Technology, 15 must be earned at the upper level in the technology component.

The three concentrations are: **General Option, Nuclear Cybersecurity,** and **Nuclear Leadership.**

Specialized Accreditation/Recognition: *The Bachelor of Science in Nuclear Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET,* www.abet.org.

Program Educational Objectives

As an Excelsior University bachelor's level nuclear engineering technology graduate, within a few years of graduation, you are expected to:

1. Apply general and discipline-specific concepts and methodologies to identify, analyze, and solve technical problems in the nuclear discipline, including understanding and addressing the societal and institutional issues related to nuclear technology.

2. Demonstrate an individual desire and commitment to remain technically current with, and adaptive to, changing technologies through continuous learning and self-improvement.

3. Demonstrate independent thinking, function effectively in team-oriented settings, and maintain a high level of performance in a professional/industrial environment.

4. Communicate effectively in a professional/industrial environment, including communicating effectively to stakeholders external to the nuclear industry.

5. Perform ethically and professionally in business, industry, and society.

6. Demonstrate and utilize leadership principles in the field of nuclear engineering technology.

Program (Student) Outcomes

Upon successful completion of the Excelsior University Bachelor of Science in Nuclear Engineering Technology program, the graduate will be able to:

1. Apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the nuclear engineering technology discipline.

2. Demonstrate an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the nuclear engineering technology discipline.

3. Apply written, oral, and graphical communications in broadly-defined technical and non-technical environments; and be able to identify and use appropriate technical literature.

4. Conduct standard tests, measurements, and experiments, and be able to analyze and interpret the results to improve processes.

5. Function effectively as a member as well as a leader on technical teams, and apply project management techniques in team project activities.

6. Demonstrate comprehension of currently applicable rules and regulations in the areas of: radiation protection, operations, maintenance, quality control, quality assurance, and safety.

7. Demonstrate an understanding of and commitment to professional, ethical, and social responsibilities, including the impacts of culture, diversity, and interpersonal relations.

Degree Requirements

The Bachelor of Science in Nuclear Engineering Technology requires **124 semester hours of credit** distributed as follows:

▶ **60 credits** minimum required in the arts and sciences component

▶ **48 credits** minimum required in the nuclear engineering technology component

▶ **16 credits** required in the concentration or free elective component (to include **INL 102 Information Literacy** and **IND 101/301 Cornerstone Course**)

Arts and Sciences Component (60 credits)

This distribution requirement ensures basic University-level competence in three arts and sciences areas: humanities, social sciences/history, and natural sciences/mathematics.

A. **Humanities and Social Sciences**
At least 24 credits must be earned in the humanities and social sciences and are distributed as follows:

1. Communications
At least 9 credits must be earned in communications courses, including 6 credits to satisfy the written English requirement, completed with a minimum grade of C [**ENG 101 English Composition** and **ENG 312 Professional and Technical Writing**]. Courses in speech, written composition, technical writing, or similar courses in either written or oral communications are applicable toward the communications requirement.

2. Ethics
At least 3 credits must be earned in ethics with a minimum grade of C. [**IND 203 Introduction to Professional Ethics**].

3. Humanities Elective
At least 3 credits must be earned in a humanities elective. Humanities subjects include, but are not limited to, advanced writing, literature, foreign languages, religion, philosophy, art, and music.

4. Social Sciences/History
At least 9 credits must be earned in such subjects as sociology, economics, history, psychology, and anthropology.

B. **Mathematics and Natural Sciences**
Students are required to complete at least 26 semester hours of credit in the combined areas of mathematics and natural sciences, with at least 12 credit hours in math at the level of college algebra or above [**MAT 116 Precalculus Algebra** and **MAT 118 Trigonometry**], including Calculus I and II [**MAT 220 Calculus I** and **MAT 221 Calculus II**].

There is no minimum credit hour requirement for natural sciences. Rather, students must complete specific required courses in the natural sciences:

1. Chemistry (with lab)
[**CHE 101 General Chemistry I** and **CHE 101L General Chemistry Laboratory I**]

2. Physics I and II and Physics Lab I and II
[**PHYS 201, 203 Physics I and II, PHYS 202, 204 Physics Laboratory I and II**]

3. Atomic Physics
[**NUC 240 Atomic and Nuclear Physics**] (also satisfies *Nuclear Physics*)

4. Nuclear Physics
[**NUC 240 Atomic and Nuclear Physics**] (also satisfies *Atomic Physics*)

5. Thermodynamics
   [**NUC 245 Thermodynamics**]

C. **Arts and Sciences Electives**
   The remaining credits needed to satisfy the 60-credit requirement may be earned in any arts and sciences subjects.

Nuclear Engineering Technology Component (48 credits)

A. **Core Requirements**
   The nuclear engineering technology component ensures basic college-level competence in the major functional areas of nuclear engineering technology. A grade of C or better is required for applicable credit.

   The following core requirements must be completed:

   1. Electrical Theory
      [**NUC 255 Electrical Theory** OR **ELEC 152 Circuit Theory I and ELEC 153 Circuit Theory II** (both ELEC 152 and 153 must be completed to satisfy this requirement)]

   2. Computer Applications
      [**IT 221 Introduction to Computers**]

   3. Fundamentals of Reactor Safety
      [**NUC 271 Fundamentals of Reactor Safety**]

   4. Material Science
      [**NUC 323 Material Science**]

   5. Health Physics/Radiation Protection
      [**NUC 210 Health Physics and Radiation Protection**]

   6. Radiation Measurement Lab
      [**NUC 211 Radiation Measurement Lab**]

   7. Plant Systems Overview
      [**NUC 350 Plant Systems Overview**]

   8. Reactor Core Fundamentals
      [**NUC 330 Reactor Core Fundamentals**]

   9. Fluids
      [**NUC 250 Introduction to Heat Transfer and Fluid Mechanics**] (Also satisfies *Heat Transfer*)

10. Heat Transfer
    [**NUC 250 Introduction to Heat Transfer and Fluid Mechanics**] (also satisfies *Fluids*)

11. Power Plant Components
    [**NUC 260 Power Plant Components**]

12. Project Management
    [**IT 390 Project Management**]

13. Integrated Technology Assessment (capstone)
    [**NUC 495 Integrated Technology Assessment**] — The capstone course is required and must be taken through Excelsior University and must be completed with a C or above. It cannot be transferred in.

B. **Nuclear Engineering Technology Electives**
   You may apply electives from nuclear and related subject areas toward completion of the 48-credit requirement of the technology component. Sample titles include Instruments and Controls, Reactor Safety, Quality Assurance Regulations, Radiation Biology, Radiochemistry, Radiation Waste Processing, and others, as approved. Be sure to contact your academic advisor for approval before registering for courses.

C. **Laboratory Requirement**
   Students must complete the following five labs:
   ▶ **CHEM 101L Chemistry I Lab**
   ▶ **PHYS 202 Physics I Lab**
   ▶ **PHYS 204 Physics II Lab**
   ▶ **NUC 211 Radiation Measurement Lab**
   ▶ **NUC 245/246 Thermodynamics/ Thermodynamics Lab**

D. **Level Requirement**
   Of the 48 credits required for the nuclear engineering technology component, at least 15 must be upper level. A course is generally considered upper level if it is offered at the junior or senior level and is clearly not introductory in content. Courses taken at two-year institutions cannot be used to satisfy upper-level requirements.

A grade of "C" or higher is needed for all technology core requirements.

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

Concentration or Free Elective Component (16 credits)

One of the following concentrations must be declared. See below for specific requirements for each Nuclear Engineering Technology concentration. A minimum of 16 credits is required for each concentration/free elective component.

▶ **General Concentration**
▶ **Nuclear Cybersecurity**
▶ **Nuclear Leadership**

GENERAL CONCENTRATION

The General Concentration allows room for up to 16 credits in free electives, to include Information Literacy and the Cornerstone course. These credits may be earned in any field of college study, including professional or technical subjects as well as in the arts and sciences. A maximum of 2 credits in physical education activity courses may be applied to the degree.

NUCLEAR CYBERSECURITY

With the rising number of cybersecurity threats on our nation's infrastructure, the Cybersecurity Technology concentration is designed to enable students to earn a bachelor's degree that focuses on cybersecurity within the nuclear industry. The concentration emphasizes the concepts associated with governance, legal, and compliance of cybersecurity pertaining to the nuclear industry. With completion of this degree, students will gain foundational knowledge of cybersecurity, the impacts of cyber attacks on nuclear facilities, and preparing them for cybersecurity positions in the nuclear industry. The cybersecurity concentration will prepare students for a variety of positions in engineering technology and security.

Upon successful completion of the Excelsior University Bachelor of Science in Nuclear Engineering Technology with a Cybersecurity concentration, the student will be able to:

1. Assess security risk and vulnerability of existing and proposed information systems in the nuclear industry.

2. Explain incident response handling, incident coordination, and ethical and legal issues.

3. Assess the effect of cyber attacks in the nuclear industry and the impact on nuclear facilities.

4. Utilize the best sources of information available related to cybersecurity issues, threats, and recovery.

Concentration Requirements

Minimum of 15 credits.

▶ Computer Security
 [**IT 380 Overview of Computer Security**]
▶ Governance, Legal, and Compliance
 [**CYS 260 Governance, Legal, and Compliance**]
▶ Cybersecurity Defense
 [**CYS 350 Cybersecurity Defense in Depth for the Nuclear Industry**]
▶ Business Continuity
 [**CYS 455 Business Continuity**]

▶ Cybersecurity Investigation
[CYS 465 Cybersecurity Investigation and Case Studies for the Nuclear Industry]

NUCLEAR LEADERSHIP

The Bachelor of Science in Nuclear Engineering Technology—Nuclear Leadership concentration is designed to prepare students to earn a bachelor's degree related to nuclear engineering technology with an emphasis on nuclear leadership. The concentration emphasizes leadership topics such as business leadership, organizational behavior, change management, leadership communications, and leadership courage/risk management. The nuclear leadership concentration will prepare students for a variety of leadership positions in the nuclear industry.

Upon successful completion of the Excelsior University Bachelor of Science in Nuclear Engineering Technology with a Nuclear Leadership concentration, the student will be able to:

1. Apply strategies in effective leadership, diverse work environments, and resolving conflicts.

2. Demonstrate an understanding of ethical and unethical leadership behaviors in regard to the nuclear industry.

3. Explain the roles of leaders in leading change, risk management, and communicating effectively in the nuclear industry.

4. Summarize leadership challenges in the nuclear industry including risk management perspectives.

5. Integrate leadership theories to improve an organization's behaviors and organizational standards in support of management priorities.

Concentration Requirements

Minimum of 15 credits.

▶ Organizational Behavior
[BUS 311 Organizational Behavior]

▶ Business Leadership
[BUS 452 Business Leadership]
▶ [NUC 280 Leading Change in the Nuclear Industry]
▶ [NUC 285 Leadership Communications in the Nuclear Industry]
▶ [NUC 360 Nuclear Leadership—Leadership Courage/Risk Management]

Degree-Specific Policies

Policies and procedures that apply specifically to the Bachelor of Science in Nuclear Engineering Technology follow. All policies can be found in their entirety within the student policy section of the Excelsior University website.

Time Limit on Courses and Exams

Due to the rapidly changing nature of technology, Excelsior University has established a time-related restriction on the application of certain subject areas meeting requirements in the Bachelor of Science in Nuclear Engineering Technology. The following subject areas must have been completed more recently than 10 years prior to entrance into the Bachelor of Science in Nuclear Engineering Technology degree program: calculus I, calculus II, natural science, computers, nuclear engineering technology, and electrical/electronics (except electrical theory). Please note that course content in these areas is subject to faculty approval. The time limit may be appealed with verification of relevant and current coursework or continuous employment in the nuclear industry (Navy, Government, or Commercial).

Navy personnel who are currently active in the nuclear field may be exempt from submitting the Time Limit Appeal if their current Joint Services Transcript lists any of the following ratings: Electrician's Mate, Nuclear Power—EMN, Electronics Technician, Nuclear Power—ETN, or Machinist's Mate, Nuclear Power—MMN.

Time Limit for Degree Completion

Excelsior University degree programs are designed, within limits, to be completed at a student's own pace. However, students must make continuous progress toward their academic goals. Students will be dismissed if they do not complete the Bachelor of Science in Nuclear Engineering Technology at the conclusion of 10 years from their entrance into the program. Students may seek an extension of the time limit by completing an appeal form, which will outline a plan for completion. Students must submit this appeal no less than one trimester before reaching the 10-year degree completion time limit.

Credit for the National Registry of Radiation Protection Technologists (NRRPT)[1]

The American Council on Education (ACE) College Credit Recommendation Service recommends the awarding of between 24 and 30 college credits for members accepted to the National Registry of Radiation Protection Technologists (NRRPT) from November 1978 to the present. Excelsior University recognizes the credit recommendations of the ACE College Credit Recommendation Service.

The Excelsior University faculty has reviewed the ACE credit recommendation toward the nuclear engineering technology requirement and may award 6 or 8 upper level credits toward the health physics/radiation protection requirement, depending on when the credit was earned. The remaining credits will be applied toward the nuclear engineering technology electives. Credit will be awarded upon receipt of official documentation from the NRRPT.

Credits from Training Programs Completed at United States Nuclear Power Plants That Are Accredited by the National Academy for Nuclear Training (NANT)[1]

The Excelsior University Nuclear Engineering Technology Faculty evaluated several of the standardized training programs at nuclear power facilities that are accredited by NANT. The 10 utility training programs that have been evaluated for college credit are:

- ► Shift Technical Advisor
- ► Senior Reactor Operator
- ► Reactor Operator
- ► Non-licensed Operator
- ► Engineering Support Personnel
- ► Radiation Protection Technician
- ► Chemistry Technician
- ► Electrical Maintenance Technician
- ► Instrumentation and Controls Technician
- ► Mechanical Maintenance Technician

Credits from Training Programs Completed at the United States Navy Nuclear Power School and Prototype [2]

The Excelsior University Nuclear Engineering Technology Faculty evaluated several of the standardized training programs at the United States Navy Nuclear Power School and Prototype, and Excelsior University recognizes the credit recommendations of the ACE College Credit Recommendation Service. The standardized training programs that have been evaluated for college credit are:

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[1] Students may earn between 24 and 52 credits, depending on the utility training program completed. Contact a technology academic advisor for details.

[2] Graduates of the United States Navy Nuclear Power School and Prototype may earn between 59 and 76 credits, depending on the specific training program completed. Contact a technology academic advisor for details.

NUCLEAR FIELD 'A' SCHOOL	
MM, January 2007–present	
EM and **ET**, January 2004–present	**12–27 credits**

NAVY NUCLEAR POWER SCHOOL	
January 2007–present	**32–34 credits**

PROTOTYPE TRAINING	
January 2007–present	**15 credits**

Bachelor of Science in
PSYCHOLOGY

120
CREDITS

GENERAL EDUCATION AND ADDITIONAL REQUIREMENTS

Refer to chart on page 34 for an overview of general education and distribution requirements for all bachelor's degree programs.

IND 101 Cornerstone A: Foundations or **IND 301 Cornerstone B: Pathways**
The Cornerstone course must be taken in the first term at Excelsior University and cannot be transferred in.

Ethics

DEGREE-SPECIFIC REQUIREMENTS

CORE REQUIREMENTS

▶ General Psychology: **PSY 101 Psychology**

▶ Statistics: **MAT 201 Statistics**

▶ Research Methods: **PSY 305 Research Methods**

▶ History and Systems/History of Psychology/Psychological Foundations:
PSY 440 History and Systems

INTERMEDIATE AND UPPER LEVEL COURSES
One course in each of the five following areas.

▶ Biological and Physiological Foundations: **PSY 380 Biopsychology**

▶ Developmental Perspectives: **PSY 235 Lifespan Development**

▶ Social Influences: **PSY 220 Psychology of Personality, PSY 360 Social Psychology**
    or **PSY 420 Human Motivation**

▶ Abnormal Psychology: **PSY 280 Abnormal Psychology**

▶ Cognitive Bases: **PSY 330 Educational Psychology** or **PSY 340 Psychology of Learning**

▶ **Psychology electives**

LA 498PSY Psychology Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

This chart shows degree specific requirements. These requirements will fit into total credits for the degree and will apply toward the overall credits listed on **page 34.** Once you are enrolled, the **My Academic Planner** tool will specify how credits (transfer and remaining) apply.

Program Description

Psychology is the study of behavior, thought, and feeling. It is a scientific field with broad application to human concerns. Full appreciation of its subject matter is gained through developing familiarity with a variety of perspectives, including biological, social, and cognitive origins of behavior. We encourage you to develop an understanding of the breadth of the discipline of psychology and to study some of its core concepts in depth. We recommend that you include in your degree plan either one course that is natural sciences-oriented or a sampling of courses that examine human behavior from the perspective of biology and natural sciences.

Of the 120 credits for the Bachelor of Science in Psychology, a total of 30 must be earned at the upper level (21 credits in the arts and sciences and 9 in electives). As part of these credits, for the core component of this degree, a minimum of 33 credits must be earned in the field of psychology, of which 18 must be at the upper level. A minimum GPA of 2.0 is required in the major.

Program Outcomes

Students who complete the degree in psychology will be able to:

1. Describe key concepts, principles, and overarching themes in psychology.
2. Use scientific reasoning to interpret psychological phenomena.
3. Apply ethical standards to evaluate psychological science and practice.
4. Exhibit effective presentation skills in a variety of media for different purposes.
5. Apply psychological content and skills to career goals.

Core Requirements

A. General Psychology/Introductory Psychology: **PSY 101 Introduction to Psychology I**

B. Statistics (psychological or equivalent): **MAT 201 Statistics**

C. Research Methods/Experimental Psychology/Experimental Design: **PSY 305 Research Methods**

D. History and Systems/History of Psychology/ Psychological Foundations: **PSY 440 History and Systems**

E. Psychology Capstone Course
The Psychology degree requires the completion of the Excelsior University capstone course **LA 498PSY Psychology Capstone**, with a grade of C or better. The capstone course must be taken at Excelsior University and cannot be transferred in.

Prerequisites: Completion of Written English, Information Literacy, and Ethics requirements, 12 upper level credits in psychology (including **PSY 305 Research Methods** and **PSY 440 History and Systems**), students must be within 15 credits of degree completion.

Intermediate and Upper-Level Courses

In central knowledge areas or sub-disciplines of psychology, including a minimum of one course in each the five following areas:

A. **Biological and Physiological Foundations**—biopsychology, physiological psychology, animal behavior, comparative psychology, perception, sensation, neuroscience: **PSY 380 Biopsychology**

B. **Developmental Perspectives**—developmental/child psychology, human development, psychology of adolescence, adult development/aging, lifespan

development, foundations of gerontology: **PSY 235 Lifespan Developmental Psychology**

Contact your advisor to discuss avoiding duplication in the Developmental Perspectives area.

C. **Social Influences**—personality theory, social psychology, motivation, counseling theory and practice, group counseling, group dynamics: **PSY 220 Psychology of Personality, PSY 360 Social Psychology, PSY 420 Human Motivation**

D. **Abnormal Psychology**—abnormal psychology, developmental disorders, psychopathology: **PSY 280 Abnormal Psychology**

A psychology course in personality is strongly advised before taking a course in the abnormal psychology area.

E. **Cognitive Bases**—cognition, learning and/or memory, educational psychology, psycholinguistics, psychology of language, language development: **PSY 330 Educational Psychology, PSY 340 Psychology of Learning**

Electives

Additional psychology courses including advanced courses built on the foundation of the courses listed herein or within the following specialized areas: applied psychology, behavior modification, clinical methods, death and dying, exceptional children, human services, community psychology, industrial psychology/human factors, measurement (psychometrics), psychology of adjustment, psychology of disability, psychology of women, psychopharmacology, sex differences, sexuality/reproduction, states of consciousness, stress, substance abuse/rehabilitation, independent studies/research/advanced labs. **HSC 316 Mind, Body and Health, HSC 331 Psychosocial Impact of Chronic Illness**

on Person and Environment, PSY 362 Psychology of Human Sexuality, PSY 365 Psychology of Diversity**

Information Literacy

All student must meet the Excelsior University information literacy requirement by completing **INL 102 Information Literacy** within the first 13 Excelsior University credits attempted.

Cornerstone Course

All students must meet the Excelsior University Cornerstone requirement by completing **IND 101 Cornerstone A: Foundations** or **IND 301 Cornerstone B: Pathways** with a grade of C or better, in their first term of credit-bearing activity after admission to Excelsior University.

Capstone

All students must meet the Excelsior University Capstone requirement by completing the capstone course that aligns with their degree program, with a grade of C or better.

COLLEGE OF LIBERAL ARTS AND SCIENCES
UNDERGRADUATE COURSES

ACC 211 Financial Accounting   3 credits

Prerequisite: none

In this course, students will not only begin to understand what accounting means, but they will further examine how important accounting really is. Accounting knowledge can be applied to any industry, at any level of the organization. As the business world has come under tremendous scrutiny, all business professionals are expected to have a general knowledge of accounting and are thus held much more accountable for their financial practices. Accountants are responsible for providing data that is used to determine the present and future economic stability of an organization.

This course presents an interesting opportunity for working professionals to examine the fundamentals of basic accounting concepts, assumptions, and principles. The topics chosen in this course will benefit any student who is responsible for managing budgets, reading financial statements, or making business decisions.

ACC 212 Managerial Accounting   3 credits

Suggested Prerequisite: ACC 211 Financial Accounting

This course is intended to help students develop an understanding of the process of identifying, measuring, analyzing, interpreting, and communicating information in pursuit of an organization's goals. By the end of the course, students should be familiar with technical skills for solving problems such as the fundamentals of basic unit costs, cost flow management systems and processes, budgeting and performance measurement, and cost analysis and pricing decisions. As a manager, students should be able to identify relevant information, the appropriate methods for analyzing information, and working together with a team of addressing global and ethical issues. Stuidents will be able to think on their feet and address real-world business issues.

ACC 314 Intermediate Accounting I   3 credits

Suggested prerequisites: ACC 211 Financial Accounting (or equivalent), and ACC 212 Managerial Accounting (or equivalent).

This course expands on topics covered in previous accounting courses to provide an in-depth study and review of accounting principles, concepts and theory. Concepts addressed in this course focus on the conceptual framework, generally accepted accounting principles, preparation of financial statements, the time value of money, cash and receivables, accounting for inventory and inventory valuation.

ACC 315 Intermediate Accounting II   3 credits

Suggested Prerequisite: ACC 314 Intermediate Accounting I, or equivalent.

This course builds on accounting topics presented in Intermediate Accounting I to prepare students for a career in the accounting field. Topics in this course will address the proper accounting procedures for property, plant and equipment, investments, liabilities and contingencies, bonds and long-term notes, and leases. Upon completion of this course, students will have a substantial knowledge base in accounting methods, according to Generally-Accepted Accounting Principles (GAAP).

ACC 360 Cost Accounting   3 credits

Prerequisite: ACC 212 Managerial Accounting

A knowledge of the costs of a business can mean the difference between the long-term survival of the organization or business failure. An ability to understand and access costs is a vital prerequisite to long term growth and profitability. In this course, you will develop an understanding of cost behavior, systems, techniques, planning and control, relevant cost information for short-term decision-making and accounting data in long-term capital budgeting decisions.

ACC 400 Auditing — 3 credits

Prerequisites: Minimum of Financial Accounting and Managerial Accounting. It is preferred that the student has also completed Intermediate Accounting I and II.

This course is intended to help you understand the theory of auditing, including the educational and ethical qualifications for auditors, as well as the role of the auditor in the American economy. By the end of the course, you should be familiar with the professional standards, professional ethics, and the legal liability of auditors. As a manager, you should be able to effectively plan and design an audit program, gather and summarize evidence, and evaluate internal controls.

ACC 415 Advanced Financial Management — 3 credits

Prerequisite: BUS 350 Principles of Finance or equivalent

The financial well-being of individuals and families requires managers to weigh risk versus return, in making investment decisions for corporations. Financial skills are also applied in your personal life, as you accept a loan, save for retirement, or apply for a mortgage. This course is designed to strengthen your capacity to make complex financial decisions—to evaluate assets, investments, financing options, instruments, and opportunities.

ACC 417 Individual and Corporate Taxation — 3 credits

Prerequisite: ACC 211 Financial Accounting or equivalent

This course provides an understanding of the principles of federal income tax and its applications. It will identify and analyze federal tax issues to support the design of effective tax plans used to ensure tax compliance and improve financial decision-making. Upon completion of the course, students will be able to recognize and evaluate fundamental tax issues that affect both individuals and corporations.

ART 101 History Of Western Art: Ancient Through The 14th Century — 3 credits

Prerequisite: none

We explore Western art from its earliest known forms, dating as far back as 30,000 BCE, to the beginnings of civilization in Mesopotamia and Egypt. We will look at the Mediterranean cultures of the ancient Aegean, Greece, and Rome and the religious visual expressions of the Middle Ages, including spectacular Gothic cathedrals. The course will help you see how art reflects culture through discussions, analytic writing, and an acquired familiarity with great specific examples from each period.

ART 102 History Of Western Art Since The 15th Century — 3 credits

Prerequisite: none

This course will empower students to look at and understand Western art from the time of the Renaissance to the early 20th century, covering painting, sculpture, and architecture. It focuses on the power of perception and visual storytelling so that students become engaged with specific art examples from each period and culture. Students will analyze famous works by Michelangelo, Caravaggio, Vincent Van Gogh, and many more brilliant artists. By developing a sophisticated eye, students will learn how artworks reflect their cultural origins and their individual creators, who give shape and meaning to their art. By the end of the course, students will be surprised at their recognition and knowledge of art that they see operating in American culture now.

All materials are open educational resources, meaning they are all available online with no expense to the student.

BIO 110 Biology (Non-Lab) — 3 credits

Prerequisite: none

This is a course designed for students who need to complete the General Education requirement for math and science as well as for those considering majoring in the natural sciences. The course covers the major areas of study and aspects of life on our planet explored by biologists. The course moves from the cellular and biochemical level through all classifications of living organisms to the examination of ecology and the biosphere. Students will also spend time examining the process of evolution for both populations and species. There is a final project that the students will work on throughout their time in the course. This final project is a presentation that will utilize both audio and video recordings. Several discussions in the course will require audio recordings to be submitted. Students are expected to be able to access the appropriate technologies to complete these assignments. Freely available technology options will be provided in the course.

Students needing the laboratory experience concurrently should register independently for BIO 111 Biology Laboratory (1 credit)

BIO 111 Biology Laboratory — 1 credit

Prerequisite: none

This one-credit laboratory-based course will engage you in several virtual laboratory activities using Labster, a virtual laboratory program, and additional activities. As you complete each laboratory exercise, you will answer questions to demonstrate your understanding of the material. Upon completion of these virtual labs, you will learn about laboratory safety, scientific method, energy utilization, cellular reproduction, genetics, evolution, and ecology.

BIO 115 Anatomy and Physiology I (Non Lab) — 3 credits

Prerequisite: none

This course focuses on the structure and function of the human body. Topics and body systems that will be studied include: the chemistry of life, histology and the integumentary system, skeletal and articulation system, muscular system, nervous system, sensory system and the endocrine system.

This course duplicates BIO 105/HSC 105. Credit for only one of these courses will be applied toward graduation.

BIO 115L Anatomy and Physiology I LAB — 1 credit

Prerequisite: none

This is a laboratory course that utilizes simulations and hands-on experiments to study body systems that include: cells, blood, integumentary system, muscular system, nervous system, skeletal system and the endocrine system. Students use the scientific method in an experimental environment, learn and use safe laboratory practices, perform dissections, perform experiments, gather and analyze data, and present data and conclusions in scientific laboratory reports.

This course duplicates BIO 105L/HSC 105L. Credit for only one of these courses will be applied toward graduation.

BIO 116 Anatomy and Physiology II (Non Lab) — 3 credits

Prerequisite: none

This course focuses on the structure and function of the human body. Topics and body systems that will be studied include: blood, the cardiovascular system, lymphatic and immune system, respiratory system, digestive system, nutrition and metabolism, urinary system and fluid balance, and reproductive systems.

This course duplicates BIO 106/HSC 106. Credit for only one of these courses will be applied toward graduation.

BIO 116L Anatomy and Physiology II Lab 1 credit

Prerequisite: none

This is a laboratory course that utilizes simulations and hands-on experiments to study body systems that include: temperature regulation and metabolism, fluid and electrolyte balance, digestive system, respiratory system, cardiovascular system, urinary system, the reproductive system, and human development and genetics. Students use the scientific method in an experimental environment, learn and use safe laboratory practices, perform dissections, perform experiments, gather and analyze data, and present data and conclusions in scientific laboratory reports.

This course duplicates BIO 106L/HSC 106L. Credit for only one of these courses will be applied toward graduation.

BIO 212 Microbiology 3 credits

Suggested prerequisites: BIO 110 Biology, BIO 111 Biology Laboratory. Intro course in Chemistry highly recommended.

In this comprehensive introductory course in microbiology, students are introduced to cellular microbes, such as bacteria, protists, fungi, and helminthes, and non-cellular microbes, such as viroids, viruses, and prions and how they are classified. In addition, students explore the impact of these microbes on the environment, human health, and society. Introduction to Microbiology covers the biological and biochemical foundations and scientific methods necessary to understand microbial growth and metabolism and provides a historical perspective by reviewing the major scientific contributions that led to modern-day microbiology.

BIO 261 Introduction to Human Genetics

Prerequisite: none

This course provides an overview of the field of Genetics from its classical beginning, Mendelian genetics; through the chromosomal theory of inheritance; the development of molecular genetics; and in to modern techniques of genetic engineering.

Perspectives on and applications of human genetics in the healthcare field will be included with topics such as genetic counseling and bio-social aspects of various genetic based diseases, consideration of how epigenetics influence disease outcomes, as well as how modern & emerging genetic techniques can affect society. The basic concepts of the cell cycle will be reviewed as a foundation. Discussion of political and sociological implications of the ever-expanding understanding of genetics and its role in emerging biotechnology will complement the exploration in this field.

This course duplicates BIO 260/HSC 260. Credit for only one of these courses will be applied toward graduation.

BIO 300 Advanced Investigations in Biology 3 credits

Suggested prerequisites: BIO 110 Biology and BIO 111 Biology Laboratory, or equivalent.

This course is a wide-ranging examination of advanced concepts, topics, and research methods in the biological sciences. Through virtual laboratory experiments, you explore topics including epidemiology, cardiac physiology, natural selection and evolution, and population genetics while you strengthen your analytical and writing skills with laboratory reports. It is strongly recommended that students have successfully completed at least an introductory course in biology prior to enrolling in this course.

BIO 320 Evolutionary Biology 3 credits

Suggested prerequisite: BIO 110 Biology (non-lab)

This is a course designed for students in the Natural Science major and those who are interested in the sciences with a strong background in biology. There is a laboratory activity integrated into the course and it will be counted as an upper level lab experience. This course explores the history of the Theory of Evolution from the work of Charles Darwin to modern day evolutionary studies using the latest technologies such as gene mapping, proteomics, epigenetics, and

DNA analysis. Students will explore examples of evolution for a variety of species and follow the evolutionary pathway for one particular species as a final project. This course is reading and writing intense but has all the reading materials available within the modules and the EC Library. No textbook purchase is required for this course. This course requires a video presentation as well as a final paper.

BIO 340 Biodiversity 3 credits

Suggested prerequisites: BIO 110 Biology, or equivalent.

Scientists have stated that we are experiencing the sixth mass extinction of biological diversity since the Earth formed and that we may well be in a new geological age, the Anthropocene Epoch. Through readings and numerous activities, this course examines the rise and fall of biological diversity over time through the study of ecology, evolution, and conservation biology. Topics include the meaning and value of biodiversity, major threats to species and ecosystems, and efforts to conserve, manage, and sustain biological diversity.

BIO 360 Developmental Biology 3 credits

Suggested prerequisites: BIO 110 Biology

Recent advances in molecular tools have allowed developmental biologists to explore the genetic mechanisms that result in the diversity found in nature. In this course you will learn about the development of living organisms from the gene to the ecosystem levels. You will also compare what happens when an organism is under an environmental stress and how this stress affects development. Finally, you will explore ethical considerations as we discuss classic model systems and along with some of the current research of developmental biology.

BIO 400 Nature of Plants 3 credits

Prerequisites: BIO 110 Biology (non-lab) and BIO 111 Biology Laboratory, or equivalent.

For centuries we have collectively marveled at plant diversity and form—from Charles Darwin's early fascination with stems and flowers to Seymour Krelborn's distorted doting in Little Shop of Horrors. This course intends to present an intriguing and scientifically valid look at how plants function and interact with humans. The course will highlight the latest research in biotechnology and much more. We will explore the inner lives of plants and draw parallels with human civilization to reveal that we have much more in common with and a need for plants in our daily lives. This highly interdisciplinary course meshes historical studies with cutting edge modern research and will be relevant to all humans who seek their place in nature.

BNS 101 Introduction To National Security 3 credits

Prerequisite: none

This course is situated at the intersection of American politics and international relations-its purpose is to examine the formulation and implementation of national security policy. In this process of our study we consider several distinct conceptual frameworks of policy formation, the actors involved in policymaking and the political-domestic and global interactions that determine grand strategy and security politics in an advanced democracy. Specifically, we examine the international environment and the contemporary threat system, the authority granted by the Constitution to actors such as Congress, the Presidency and various executive department and agencies (Defense, Homeland Security, CIA, etc.) and the roles they fulfill in preserving national security and advancing the national interest.

BNS 301 National Security Ethics And Diversity 3 credits

Prerequisite: none

Have you ever wondered if a decision you made or an action you took was "right" - for yourself and for others; for the many, even if not for some few? Have you ever thought deeply upon the classic question–do the Ends justify the Means? In this course you will engage these and other questions, while also focusing on the practical study of ethics in the national security arena.

You will examine ethical subjects and dilemmas facing individuals, institutions, societies and governments, both at home and abroad. You will examine ethical concepts and principles to find meaning in specific behaviors, and theory will be related to real-world application. You will evaluate how ethical principles relate to diversity considerations and practices in the national security arena. The ethical and diversity dimensions of public service and national security are explored through a focus on officials working in the broad range of occupations in national security.

BNS 303 Comparative National Security Analysis — 3 credits

Prerequisite: none

Why do some countries find security without large militaries, while others seem compelled to build and use them? Why do countries around the world differ so much in how they make and execute national security policy? This course focuses on the complex process tying national interests to security policies of nation-states in the conflicting realm of international relations. You will review aspects of national culture, resource economics, and practical policy analysis, for example, to better understand how identity, power, and national security are constructed in countries around the world. You will become adept at assessing underlying national power dimensions, which drive nation-states in diplomacy and war, among other behaviors. You will evaluate another nation-state's national security in depth while also exploring several of the dimensions of national power and identity in great detail. The course serves national security professionals by deepening the understanding of how national security varies so widely and how difficult it is to achieve stability among the nation-states of the world.

BNS 305 Cybersecurity in National Security — 3 credits

Prerequisite: none

This course focuses on the emerging security issues that arise from an ever increasing presence of computers and computer enabled devices in the defense, intelligence, and economic fabric of modern life. This course examines the definitions of cybersecurity and cyber risk in a national security context in order to inform future leaders and practitioners of the opportunities and challenges of cyberspace. This course concentrates on the policy dimensions of cybersecurity rather than the technical aspects of network defense and attack. Issues of cybercrime, cyber espionage, cyber war, and cyber diplomacy will be considered. Future leaders in national security must understand the possible approaches to cybersecurity and the impacts cyber policy can and will have on U.S. National Security as well as global security.

BNS 307 Intelligence in National Security — 3 credits

Prerequisite: none

This course focuses on the United States Intelligence Community and the processes to collect, analyze, and disseminate intelligence to national security policymakers. Students examine what intelligence is, the development of the Intelligence Community agencies, and the role each agency contributes to national security. Application of critical thinking is used to determine the methodology of conducing intelligence in a democracy in order to define what the Intelligence Community can, or cannot do. This course will benefit students interested in national security, military studies, international relations, and political science.

BNS 498 National Security Capstone — 3 credits

Prerequisite: The capstone course is restricted to students majoring in National Security with senior standing. Students must have completed all other required courses for the major, completed both the information literacy and written English requirements. Students must also be within 15 credits of degree completion and obtain advisor approval to register for this course.

The National Security capstone seminar course is the culmination of your undergraduate education. Upon completion of this course, you will have earned a bachelor's degree in National Security, a valuable degree in your ongoing

professional development and continued service within the national security community. Yet, it is murkier now more than ever as to what American "nation" is to be secure against which threats, and through which means? Your previous coursework illuminated the complex and interdisciplinary field of national security affairs, and some of the many security challenges facing the US at home and abroad. You have reviewed how nation-states around the world differ in these grand strategic formulation dilemmas, and, in this course, you will dive deeper still into the national security challenges confronting the US (and its key allies). You will examine several of these enduring and emerging threats and opportunities, as well as the particular challenges a democracy confronts in pursuing a successful grand strategy.

BUS 222 Business Communication 3 credits

Prerequisite: none

This course will provide students with knowledge and skills to effectively communicate in global business environments. Additionally, students will develop and evaluate both written and oral business communications. While learning to identify cultural aspects of verbal and nonverbal behavior of persons from different cultures and themselves, students come to recognize cultural differences that can cause communication challenges in management situations.

BUS 225 Consumer Behaviors 3 credits

Prerequisite: none

In this course, students will explore the principles of consumer behavior by reviewing topics about consumer motivation, perception, learning, attitude, and information processing. Additionally, students will discover the impacts of life-style, demographics, social class/culture, groups, leaders, family, and diverse/global environments on consumer behavior. Students will examine consumer behavior from a marketing strategy perspective to successfully develop products and services that will fulfill the wants and needs of individuals in the marketplace. Students will look at the factors influencing acquisition

and consumption of products and services.

BUS 230 Business Law 3 credits

Prerequisite: none

This course provides an analysis of key legal issues affecting businesses. There is an emphasis on the development of legal strategies to support the venture over its expected life cycle. This course also focuses on the legal environment of the United States. Students examine a series of real-world scenarios and apply the legal tools developed during the course to those cases.

BUS 231 Business Data Literacy 3 credits

Prerequisites: none

This course develops data literacy and statistical thinking and essential skills for business process improvement. Topics covered include descriptive statistics and data visualization, distributions, sampling, Central Limit Theorem, estimation using confidence intervals, statistical inference, and single and multiple regression analysis.

This course duplicates: BUS 233 Business Statistics, MAT 201 Statistics, MAT 215 Statistics for Health Care Professionals, and the Excelsior University Examination MATx210. Credit in only one of these courses/exams will be applied toward graduation.

BUS 235 Financial Markets and Institutions 3 credits

Prerequisite: none

This course studies the fundamental principles which govern global financial markets and institutions. Some topics include: characteristics of financial instruments and establishments, the Federal Reserve, monetary policy, the banking industry, and capital markets.

BUS 299 Business and Management Capstone 3 credits

Prerequisites: This is a required course in the A.A.S. Administration/Management Studies program. It is open only to A.A.S. Administration/Management Studies students who have completed all other Business

core requirements and most, if not all General Education requirements.

An online portfolio development experience that requires students to reflect on their past academic and professional experiences and use the information gained from this reflective exercise to develop learning statements related to the Associate of Applied Science in Administration/Management Studies degree outcomes. The learning statements must be supported by documented evidence that demonstrates that the outcomes have been met. Students learn how to develop an online portfolio during the first module of the course and then work under the guidance of a faculty mentor during the remainder of the semester to compose learning statements, compile appropriate evidence, and create the Integrated Business and Management Assessment report.

BUS 300 Introduction to Entrepreneurship 3 credits

Prerequisite: none

In this introductory course, you will gain insight into what entrepreneurship is as well as the varying types of entrepreneurs that exist. Part of the focus for this course will be assessing the environment for entrepreneurship so that you can better prepare yourself for your venture. This course will also help you determine the entrepreneurial route you envision for yourself. This course concludes with an evaluation of the various types of business models available for business persons.

BUS 310 Entrepreneurial Marketing 3 credits

Prerequisite: none

Entrepreneurs face unique challenges in promoting a new business or in competing in extremely challenging and uncertain circumstances. Business marketing, whether an established business or a entrepreneurial start-up, encompasses much more than just advertising. It involves research on the industry, marketing, and market, which are used to define a target market and market segmentations. It also involves developing a marketing budget, researching media platforms, and determining promotional material costs. Distribution channels are a vital part of marketing

as well. Finally, the marketing strategy describes business marketing goals and objectives in a unified plan. Each of these essential components will be examined within this course. Students will actively research and apply each component to their own business ventures, which will culminate in the development of a marketing plan.

BUS 311 Organizational Behavior 3 credits

Prerequisite: ENG 101 College Composition

This course focuses on the crucial behaviors of organizations at the individual, group/team, and organizational level. It examines how external and internal forces influence behaviors such as leadership, communication, management, employee motivation, engagement, and valuing diversity. The focus on domestic and global organizations includes private, public, and military organizations and the impact of organizational behavior on the effectiveness of the organization.

BUS 312 Managing Human Resources 3 credits

Prerequisite: none

Human resources has evolved over the years. However, some of the basic tenets of understanding still remain and are necessary for both employers and employees. In this course, students will uncover topics including the role and context of human resource management, fair employment practices, human resource planning, human resource staffing, performance management, employee development, employee compensation, and labor relations.

BUS 313 International HR 3 credits

Prerequisite: none

This course provides an in-depth study for the human resources practitioner and international line manager to the legal, practical, and successful human resources strategies used by international companies in today s global economy. Students will examine best practices in the global environment. Topics include: recruitment and staffing, compensation, benefits, labor laws, employment-related taxation, leadership, management, and supervisory practices among international corporations, immigration, permanent resident and temporary work

visa status, and expatriate and repatriation policies and practices with respect to recruitment, training, performance management, and repatriation.

BUS 315 Labor Relations   3 credits

Prerequisite: none

This course focuses on the study of the relationships between unions and employers, including various aspects of labor history, law, and collective bargaining. In addition, it will examine issues such as public sector unionism and unionism around the world. A core emphasis will be the changing nature of labor-management relations in the United States as a result of global competition and the internationalization of markets. Finally, the course touches on patterns of union resistance and preventive labor relations strategies.

BUS 323 Business Ethics   3 credits

Prerequisite: none

Questions of ethics seem inextricably intertwined with business these days: Facebook and the Cambridge Analytica scandal, Wells Fargo, and Harvey Weinstein. The manager in today's workplace, whether they are in the private or public sector, needs to understand the ethical climate in which they are operating and navigate a path that allows them to acknowledge, understand, and act appropriately when faced with an ethical dilemma. This course will encourage you to prepare for the ethical challenges that you might face, through an exploration of ethical theory and the way in which personal values and ethical behaviors impact the culture of an organization. On completing this course, you will gain a greater understanding of how ethical principles relate to organizations within which they operate and how the perception of ethics can impact an organization in terms of reputation, functioning, and performance.

BUS 325 Women In Business   3 credits

Prerequisite: none

Although women have made inroads as managers and leaders, they still continue to lag their male counterparts in reaching the executive suites and boardrooms of many major organizations around the globe. This study will examine a number of

theories and findings looking at the roadblocks women continue to face in their quest for upward mobility, as well as offering insight into how women are gaining access to upper management. Topics covered will include:

1. The economic strength of women as a market,
2. An examination of the status of women in the United States compared with other countries,
3. Obstacles faced by women such as the glass ceiling, nonlinear career paths, and work/life/family balance,
4. The importance of attracting and retaining talented women, and
5. Leadership styles and traits of women.

BUS 341 Management Concepts and Applications   3 credits

Prerequisite: none

A study of fundamental management theories, examining the manager's role in today's global business environment. Topics include the role of managers in the business environment, strategies for planning and decision making, organization and controls, leadership, motivation, staffing, and managing change.

BUS 343 International Marketing   3 credits

Prerequisite: BUS 351 Marketing Concepts and Applications, or equivalent.

This course presents a systematic framework for understanding international marketing management and global business strategy. The course focuses on creating and executing global marketing strategies and polices by examining the cultural, political, legal, ethical, and economic issues relevant to the development of effective global marketing strategies and polices in the digital age.

BUS 350 Principles of Finance   3 credits

Prerequisite: ACC 211 Financial Accounting

An introduction to the discipline of finance, this course examines general principles of finance and corporate finance. Topics include financial objectives of the firm, the time value of money, risk and return, capital budgeting, the cost of capital, financial forecasting, and ratio analysis, working capital

management, EVA and MVA concepts, and current and future trends in corporate finance.

BUS 351 Marketing Concepts and Application   3 credits

Prerequisite: none

Successful businesses develop effective strategies to meet the needs of their customers. Marketing is about how businesses interact with consumers and the processes by which they anticipate, analyze, and meet their needs. It is both a philosophy of doing business and a management activity that puts the customer at the heart of everything that the organization does. Marketing ensures that the customer gets the right product, at the right time, and in the right place. Marketers both develop and apply a range of communications, creative, and technological techniques that allow them to work at both the tactical and strategic levels within organizations and across a range of global businesses and industries. In this course, we will look at some of the fundamental concepts of marketing and then explore how marketing managers can put them into practice in the real world.

BUS 352 Digital Marketing Fundamentals   3 credits

Prerequisite: none

This course will focus on the fundamental concepts, tools, terminology, methods, and practices that relate to current trends in digital marketing by drawing from the very latest practitioner thinking. Students will explore and closely examine social media marketing as part of an overall content marketing strategy. An exploration of search engine optimization, Pay Per Click (PPC), and digital display advertising, will give the student an overview of current methods and practices and provide practical application of the skills learned. Email, mobile and new technologies will also be evaluated. The importance of good analytics will also be emphasized with a review of the current thinking and practices. The course will culminate in the integration of some of the previous learning in terms of the development of a buyer persona, which forms a key element of a digital marketing strategy.

BUS 375 Marketing Management   3 credits

Prerequisite: BUS 351 Marketing Concepts and Applications, or equivalent.

This course provides students with the necessary tools and frameworks to better prepare them for making effective marketing decisions. Students will explore effective marketing strategies across global business organizations. They will investigate concepts, theories, and real-world applications to create and implement a marketing strategy for launching a product. This course focuses on both the strategic planning process and marketing's cross/inter-functional relationships. Students will discover market opportunities, forecasting, targeting, and brand positioning for new and mature markets. They will examine how to organize, plan, implement, and measure an effective marketing campaign.

BUS 380 Managing Diversity in the Workplace   3 credits

Prerequisite: none

This course introduces students to the concept of diversity consciousness, a concept that goes beyond diversity training to develop an awareness and understanding of diversity in all its aspects. It examines the demographic variables that include race, ethnicity, culture, religion, age, physical and mental ability and gender and sexual orientation, as well as socio-economic class and family status. It emphasizes the skills needed in working with and supervising a diverse workforce and reviews the obligations and rights of both the employer and employee under the laws against discrimination enforced by Equal Employment Opportunity Commission in the USA.

BUS 381 Transportation, Warehousing, and Distribution   3 credits

Prerequisite: none

This course provides a fundamental understanding of transportation, warehousing, and distribution operations within the logistics industry. The curriculum is built to enable students to competently utilize transportation and distribution models, including identification of end-to-end consumer requirements. Throughout its duration, this course

will offer numerous examples of how to incorporate transportation, warehousing, and distribution strategies. Inventory control decisions; supply chain requirements; intermodal operations; and, distribution efficiencies are stressed within the curriculum and cases.

BUS 425 Operations Management   3 credits

Prerequisite: A course in Statistics or equivalent knowledge is required

This course provides an overview of the systematic planning, designing, operating, controlling, and improving processes that transform inputs into finished goods and services. It develops students' abilities to recognize, model, and solve problems inherent in production and service environments. Specific topics include product and process design, queuing, facility layout and location, linear programming, decision analysis, forecasting, and inventory models.

BUS 431 Business Data Analysis   3 credits

Prerequisite: BUS 231 Business Data Literacy

The overarching goal of this course is to help managers make better decisions. Management guru, W. Edwards Deming, once said all "management is prediction of future results" (Wood & Wood, 2005). If we do not know how to estimate the impacts of decisions on future outcomes, we limit ourselves to guessing with our gut instead of applying a real analysis based on data science (Bonabeau, 2003). In this course, students will learn how to develop Excel statistical and decision models and create basic data visualizations, which will help students become data savvy and provide them with essential Excel skills, both of which are necessary to be competitive in a professional work environment.

It will include a review of important statistical methods; use of time series for forecasting; application of regression analysis; aspects of decision theory including model building, linear optimization, simulation, optimization with and without risk and uncertainty; and methods to effectively communicate the results and rationales to management in tables and using graphs.

The course also includes use of Tableau to create more effective data visualizations and data stories. Students will install Tableau on their computer a 1-year free Tableau student license.

Microsoft Excel (Mac or PC) is required. Cloud-based versions of Excel are not recommended. The ability to install 3rd party Excel add-ins on your PC/Mac is required. All Mac students should upgrade to Office/Excel 2016 as Excel for Mac 2011 does not have full functionality with other important tools we use in the course, e.g. Pivot Tables.

BUS 435 International Business   3 credits

Prerequisite: none

In this course, we'll examine and analyze global business in its historical, theoretical, environmental, and functional dimensions. Our focus will be on understanding the growing economic interdependence of nations and the impact of that interdependence on managerial and corporate policy decisions that transcend national boundaries.

This course will also provide an introduction to globalization and the cultural, economic, political, and legal environments of international business, including an overview of risks, challenges, and opportunities of competing in the global marketplace.

Your key challenge will be to develop and present a business plan to launch a product or service of your choice in a foreign market.

BUS 437 Securities Analysis   3 credits

Suggested prerequisite: BUS 350 Principles of Finance

The financial crisis of 2007 showed the importance of securities to our daily lives. This course focuses on the tools of fundamental analysis, the concept of risk and investment management. Students examine security valuation, risk measurement, portfolio diversification and portfolio performance measurement preparation of pro forma financial statements. The goal of

the course is to provide students with a strong theoretical and applied understanding of the valuation of equity securities.

BUS 440 Business Supply Chain Management — 3 credits

Prerequisite: none

This course presents an examination of logistics and supply chain systems. The focus is on analyzing, designing, and implementing systems. Topics include supply chain management strategy, planning, and operations; the role of e-commerce; and financial factors that influence decisions. Discussion also covers the tradeoffs between cost and service and between the purchase and supply of raw materials; the warehousing and control of inventory; industrial packaging; materials handling within warehouses; and the distribution of finished goods to customers required to minimize costs, maximize profits, or increase customer service levels.

BUS 442 Inventory Management — 3 credits

Prerequisite: none

This course provides a fundamental understanding of inventory management, control, and turnover as applicable to procurement and logistics operations. The curriculum is designed to enable students to competently utilize inventory management techniques, including costing (ordering, holding, and carrying); demand (both deterministic and probabilistic); inventory modeling; stocking, restocking, and outsourcing; and, the use of inventory management technology. Throughout its duration, this course will offer numerous examples of how to apply "fill rate concepts"; "material handling and storage methods"; "logistics storing and tracking procedures"; and, "order cycle time techniques". Inventory forecasting, supply & demand management, and inventory planning are stressed within the curriculum and cases.

BUS 443 Lean Logistics — 3 credits

Prerequisite: none

This course provides a fundamental understanding of lean applications toward inbound and outbound logistics networks, and the role of leadership to develop corporate logistics strategy. The curriculum is built to enable students to competently utilize professional lean logistics methods and techniques, including identification of areas of waste, ability to decrease inventory, and increase logistics throughput. This course will offer numerous examples of how to apply "lean logistics thinking"; "total logistics cost"; "logistics demand patterns"; and, "logistics planning-operational bridging techniques". Cross-functional logistics teamwork, logistics operational strategy, logistics functions, inventory reduction, and operational logistics networks are stressed within the curriculum and cases.

BUS 450 Operations Strategy — 3 credits

Prerequisite: BUS 425 Operations Management, or equivalent.

Production management is crucial for achieving efficiency in manufacturing and service industries in today's marketplace. Students will explore the connections between various business activities and processes which impact production. Some of these areas include the organization's ability to meet product specifications, adhere to contractual requirements, schedule deliverables, and effectively utilize available resources to attain profitability. Students will study the influences on production outcomes, with an emphasis on facilities layout, capacity management, process analysis, quantitative work measurement, and production control. The course will enhance students' understanding of production activities, processes, and systems by investigating business tools for effective production management.

BUS 452 Business Leadership — 3 credits

Prerequisite: none

This course will examine the differences and continuities between management and leadership, and also explore the current theories and styles in contemporary leadership thought, such as the more recent interest in servant leadership. Evaluating the skills and tools needed by the effective business leader, we will also assess leadership in context and examine the important role of strategic leadership in the management

of change in a world that is increasingly volatile, uncertain, complex, and ambiguous.

BUS 453 Recruitment and Selection   3 credits

Prerequisite: none

This course provides an in-depth study for the human resources practitioner to the legal, practical, and successful human resources strategies used by domestic and international companies in today s global economy. Students will examine best practices in recruitment and selection for organizations derived from legislation, management theory and practice and social science research. It covers the staffing activities practiced in all types of organizations. Particular emphasis will be placed upon cases analyses and business applications. This course also includes correct planning of job interviews and interview routine. Students will learn different types of job interviews and their proper use in practice, the use of assessment centers for selection of new employees, psychological testing as well as other methods of selecting new employees.

BUS 454 HR Analytics   3 credits

Prerequisite: none

You will investigate the complex field of Human Resource (HR) analytics, including how decision making in organizations is facilitated or impeded by existing information architecture and processes, methods for improving an organization's analytical capabilities, and facilitating analytics technology implementations. A major focus of the course will be on the use of human resource information systems (HRIS) for collecting and analyzing human resource data. Students will learn how to apply analytical processes and technologies to enable strategic decision making by an organization's leaders. In addition, students will learn how to improve organizational effectiveness through the use of human resource technology. Both enablers and barriers to effective deployment of HR analytics technologies will be discussed, as well as issues related to data integrity and data governance. You will be challenged to apply an HR analytics framework to a robust healthcare

organization case study, developing a combination of descriptive and predictive measures.

BUS 460 Market Research   3 credits

Prerequisite: none

This course examines the systematic design, collection, analysis, and reporting of data relevant to the marketing function within the organization. It specifically addresses the growing role that technology plays in predicting consumer behavior, marketing trends, addressing marketing problems, and the development of new products and services.

BUS 480 Global Business Strategy   3 credits

Prerequisite: BUS 435 International Business, or equivalent.

The course examines business-level global strategies whose purpose is to create competitive advantages in the global market. It also examines the cultural, political, legal, and economic international environment; global trade theories; foreign direct investments; foreign exchange; country evaluation and selection; collaborate strategies; control strategies; risk management; international marketing; import-export; international finance; international accounting and tax; international management; and international human resources.

BUS 490 Integrated Business and Management Assessment BPB   3 credits

Prerequisite: Completion of all professional component core requirements and most if not all general education requirements.

This is a capstone course in the Bachelor of Professional Studies (BPS) in Business and Management. Students will analyze complex management situations to make strategic decisions related to process improvement.

BUS 499
Strategic Management Capstone   3 credits

Prerequisite: This course requires prior completion of all core business courses. As you start this integrative course in business, you are expected to already possess an understanding of accounting, finance, marketing, economics, management, strategy, and ethics. You should be familiar with computer applications and quantitative analysis.

This capstone course is a culminating course that allows students to integrate concepts, principles, and methods from all fields of business. Students will draw on their foundational core business knowledge and professional competencies to solve business problems typically found in the real-world. The competencies for this course were developed by faculty and industry experts and validated by industry advisors to ensure the goals of the course are aligned with job market requirements. The business simulation will incorporate the program knowledge and competencies acquired in accounting, finance, operations, information technology, marketing, management, diversity/inclusion, and business ethics, Additionally, the simulation and class readings and resources are designed to foster students' strategic thinking and strategic management decisions. In so doing, additional discussion and writing assignments will highlight business writing, critical thinking, adaptive performance, and business communication. Throughout this class, students will be expected to integrate their learning across the business curriculum, evaluate their individual strengths and weaknesses, and develop an action plan to ensure their life-long learning and adaptability in the business environment.

CHE 101 General Chemistry I   3 credits

Suggested prerequisites: MAT 114 Intermediate Algebra, or equivalent and high school chemistry.

General Chemistry examines topics including chemical nomenclature, measurement, states of matter, the atom, chemical bonding, solutions, stoichiometry, and thermochemistry, and how these apply in the world around us. The purpose of this course is to introduce you to the world of chemistry which covers such topics as the structure of the atom and the basic physical laws that govern matter. You will learn about the processes chemists and scientists use to determine the composition and nature of matter.

CHE 101L General Chemistry Laboratory I 1 credit

Prerequisites: CHE 101 General Chemistry I, or equivalent.

The purpose of this course is to learn how to apply the scientific method to the study of various chemistry topics and to gain experience using a formal scientific experimental process with analysis and calculations to mirror the research and experimentation used in the field of chemistry.

CJ 101 Introduction to Criminal Justice 3 credits

Prerequisite: none

This course is an introductory examination of the American criminal justice system with an understanding of its social and institutional context, unique structure, and functioning. The course provides an overview of the foundations and components of the criminal justice system, including (substantive and procedural) criminal law, police, courts, and corrections. Emphasis will be placed on the criminal justice process itself and how the various institutions of criminal justice interact. Key issues will be addressed such as individual rights versus public order, defining and measuring crime, knowledge of criminal law, and the challenges, issues, and limitations facing the police, the courts, and the rehabilitation system—within the context of our U.S. Constitution. Different aspects and stages of this process will also be explored.

CJ 110 Introduction to Law Enforcement 3 credits

Prerequisite: none

This course examines the history, evolution, roles, legal foundations, and challenges faced by contemporary law enforcement. The structure of law enforcement agencies, personnel, and

administration will be discussed. Emphasis will be placed on the functions, responsibilities, and public accountability of law enforcement within American society, as well as career opportunities and alternatives in the field of law enforcement.

CJ 120 Introduction to Corrections   3 credits

Prerequisite: none
This course covers the history, organization, and functions of corrections within the criminal justice system, and emphasizes the evolution of corrections for the rehabilitation of offenders. Topics covered include the various forms of corrections, alternatives to incarceration, types of inmates and their issues, and the future of correctional systems in American society.

CJ 228 Multicultural Issues in Criminal Justice

Suggested Prerequisites: CJ 101 Introduction to Criminal Justice or equivalent
This course focuses on issues relating to the challenges presented to law enforcement officers and agencies by increasingly diverse communities and work forces. It places these complex dynamics in social and historical context and points to skills and strategies for police officers and agencies to better understand and communicate with those who are different because of gender, sexual orientation, race, ethnicity, religion, or culture. Ultimately it is the goal of this course to present a clear understanding of the highly globalized, multicultural country we live in as well as ways to make law enforcement more cohesive among the many cultures they will encounter.

CJ 256 Criminal Justice Administration   3 credits

Suggested prerequisite: CJ 101 Intro to Criminal Justice, or equivalent.
This course provides a comprehensive discussion of criminal justice administration through the integration of relevant theories, research findings, and the application of best practices within criminal justice organizations. Included in this course are the basic concepts of an organization, management, and the criminal justice system's environment; issues regarding communication, motivation, leadership and job design. Additionally, the areas of group behavior and processes within criminal justice organizations regarding occupational socialization, power and political behavior, organizational conflict and effectiveness, decision-making, and change and innovation will be covered.

CJ 265 Criminal Procedure and Evidence   3 credits

Suggested prerequisite: CJ 101 Intro to Criminal Justice, or equivalent.
This course provides a comprehensive review and in-depth analysis of the rules of evidence and criminal procedural law in the United States. Students will analyze case law which interprets the constitutional guarantees afforded by the 4th, 5th, 6th, 8th and 14th Amendments, and the admissibility of evidence in court proceedings. Particular emphasis is placed upon arrest, search and seizure, confessions and admissions, the privilege against self-incrimination, the right to counsel, the exclusionary rule and its exceptions, burden of proof, and procedural due process.

CJ 298 Criminal Justice Capstone   3 credits

Prerequisites: Students must have completed all other requirements of the degree, completed the written English requirement, and completed the Information Literacy requirements. Students must be within 12 credits of degree completion.
The capstone course is intended as the last course for students in the criminal justice major. Students must have completed INL, WER and their required criminal justice coursework prior to taking this course. Also, a student must be within 9 credits of degree completion and obtain academic advisor approval to register.

The capstone course is designed to allow learners the opportunity to coalesce what they have learned about

criminal justice throughout the program. Learners will analyze various aspects of the criminal justice system and apply their knowledge to discuss, generate, and propose solutions regarding technical, legal, ethical and demographic issues that may arise in this field.

CJ 301 Juvenile Delinquency and Justice 3 credits

Prerequisite: none

This course explores the judicial processes employed in handling minor criminal offenders; those generally under the age of 18 years. These include arrest, legal guardian responsibilities, sealed court records, case adjudication, sentencing and juvenile corrections. Also covered are the biological, psychological, and sociocultural aspects of delinquency and its causes, potential deterrence and rehabilitation modalities.

This course was cross-listed with SOC 301. Credit for only one of these courses will be applied toward graduation.

CJ 315 Gangs in America 3 credits

Suggested prerequisite: none

Gangs continue to scourge the American criminal justice system. Since the 1990s street gangs have multiplied in number and are no longer simply an inner-city problem. The nationwide effort to manage this enigma is far reaching beyond just criminal justice professionals. The problem is a complex one that is far reaching into the homes of every citizen in every community. This course is designed to assist students in developing an understanding of what a street gang is, provide an overview of the historical and contemporary street gang, and examine efficacy of some past and current methods used to address their influence. Particular attention will be devoted to gang types, diversity, theoretical explanations as well as an analyze the responses, intervention and prevention strategies, and public policy issues.

The content in this course is mature and may be disturbing. It should be given serious consideration and treated with due diligence.

CJ 324 Criminology 3 credits

Suggested prerequisite: CJ 101 Intro to Criminal Justice, or equivalent.

This course provides an in-depth study of the nature and causes of crime and criminal behavior. Using a multidisciplinary approach, the course focuses on criminal topologies and criminological theories. Topics range from crime causation to the extent of crime, victimization, and social and psychological theories. Learners will address various types of criminality such as violence, property crimes, and public offenses, as well as the application of these theories to criminal justice policies and procedures.

This course was cross-listed with SOC 324. Credit for only one of these courses will be applied toward graduation.

CJ 330 Judicial Process

Suggested prerequisite: none

This course will familiarize students with theories and applications of deviance, deviant behavior and the social interactional process of "being deviant". Students will read original texts and begin to understand the larger body of social interaction research in Sociology and Anthropology that have given rise to contemporary theories of deviance and learn to relate these concepts to other bodies of work in the fields of social science such as Criminal Justice. Students will also learn to apply the ideas from their theoretical reading to contemporary life and to their own personal and professional experience. In addition to reading, writing and discussion, students will engage in a short field activity during which time they will have the opportunity to make their own scientific observations of deviant behavior.

CJ 365 Police and the Community 3 credits

Suggested prerequisite: CJ 101 Intro to Criminal Justice, or equivalent.

This course offers an in-depth examination and analysis of the relationship and interactions between American law enforcement and the

communities they serve. Many aspects of policing are explored at intermediate and advanced levels, to include patrol, community policing, diversity issues, and other current issues and controversies in municipal policing.

CJ 380 Ethics in Criminal Justice

Prerequisites: CJ 101 Introduction to Criminal Justice or equivalent
Examines ethical issues specifically related to the criminal justice profession. Issues include professional communications including government regulation and policy, free speech, client/victim/investigative privacy, accuracy in media and the impact of science and technology on communications.

CJ 432 Drugs and Crime   3 credits

Prerequisite: none
This course analyzes the historical, political, economic, social, psychological, and cultural factors that influence the use of illicit, misused, or abused substances. The coursework will include a study of the influence these factors have on the social and legal responses to drug use, including legislation, law enforcement, drug courts, and associated policies and procedures.

This course was cross-listed with SOC 432. Credit for only one of these courses will be applied toward graduation.

CJ 498 Criminal Justice Capstone   3 credits

Prerequisites: Completion of Written English Requirement and Information Literacy, and most of the CJ courses required for the major (including CJ 101 Introduction to Criminal Justice, CJ 110 Introduction to Law Enforcement, and CJ 255 Organizational and Administrative Strategies in Criminal Justice). Students must be within 15 credits of degree completion and obtain advisor approval.
The Criminal Justice Capstone is intended as the last course in the major. Throughout the term, students will discuss various topics in regards to the criminal justice system. Students will also research and submit application papers, the topics of which will reflect the integrated components of the criminal justice system as they relate to the program outcomes. This course is designed to allow students the opportunity to demonstrate their understanding, analysis and synthesis of the materials, concepts and theories in the U.S. criminal justice system, as well as their communication and presentation skills.

COMM 125 Public Speaking   3 credits

Prerequisite: none
Did you know that a national survey once found public speaking to be more frightening to the general public than snakes, death, and sharks? A comedian once quipped, "According to most studies, people's number one fear is public speaking. Number two is death." This course assists students with public speaking anxiety as well as speech construction and delivery, which they can use for any professional presentations. In fact, business leaders commonly rank effective communication skills as some of the most sought after skill sets in today's world. Taking a public speaking course will help you develop critical thinking and listening skills as well as enhance your verbal and nonverbal communicative behaviors. Students taking this course will create voiced-over PowerPoint presentations and record video speeches.

COMM 210 Interpersonal Communication   3 credits

Prerequisite: none
Do you feel like you aren't being understood when you talk to your coworkers, family or friends? Have you ever walked away from a conversation and thought "Well, that could have gone better!"? This course introduces students to the skills and theories of interpersonal communication, which are needed to build and maintain successful personal and professional relationships.

Students are given opportunities to evaluate the complicated interactions of psychological, social and cultural forces involved in interpersonal exchanges. This course explores personality traits, the perception of self and others, listening, managing conflict, and verbal and non-verbal communication.

COMM 312 New Media, Relationships And You   3 credits

Prerequisite: none

Like it or not, social media, digital communication, and smartphones are rapidly altering how we relate to one another in our personal and professional lives. Do our online actions increasingly shape our offline identities? This class will explore how social forces such as race, gender, and culture affect digital communication, while also exploring related topics of workplace communication, issues of privacy, unconscious bias, and internet celebrities. Lastly, we'll also investigate controversial behaviors like sexting, trolling, transhumanism, and terrorism online. Because having knowledge and practical skills of new media makes students more marketable, the class includes practical assignments with real world application.

COMM 324 Conflict Management   3 credits

Prerequisites: none

How have your conflicts typically played themselves out? Do you sense that there are patterns in your conflicts? Mark Twain said that to a man with a hammer, every problem looks like a nail. When disagreements arise with our fellow employees, our neighbors, our supervisors, or even our family, we tend to use the same approach over and over because that's the only one we know. Conflict is unavoidable but COMM 324 explores the causes, processes, and outcomes of conflict as well as the principles and techniques for improving the handling of conflict.

COMM 345 Innovation and Current Trends in Communication   3 credits

Prerequisite: none

This course examines how contemporary organizations and industries both use and respond to innovative communication practices. To engage with professional communication issues in the digital age, we examine trends dealing with social media, the attention economy, online advertising, contemporary news media, copyright, and more. The course also tackles some of the challenges and potential pitfalls of contemporary communication.

COMM 347 Innovative Communication and Culture   3 credits

Prerequisite: none

This course will examine the complex relationship between innovation, culture, and communication. How do innovations in communication drive cultural change? How does culture communicate its innovations? Television was a powerful agent of transformation, and we are now seeing how online platforms are changing lives and cultures. In addition, visual images, popular music, and fashion are also forms of innovative communication that students will be exploring. Communication can be a great equalizer within a culture, especially as innovation allows average citizens to utilize new, potentially powerful platforms. This course prepares student to interpret the cultural behaviors and visual messages that constantly surround us at work and in life.

COMM 423 Leadership and Team Building   3 credits

Prerequisite: none

When you look at the leaders around us—be it your employer or the President—you might find yourself wondering exactly why these individuals excel in such positions. In this course, you'll delve deeper into leadership theory and practice

successful leadership models. You'll also build teamwork skills as well. Although this course focuses on leaders, it provides anyone with more effective skills to succeed in life. So no matter what your role or position in life or at work, this course asks that you assess yourself honestly and become the best yourself.

CYS 220 Cloud Computing and Virtualization
3 credits

Prerequisite: none

This class investigates the aspects of cloud technology including the responsibilities of the various parties, the complexity of governing cloud resources, deliver issues, cybersecurity, and uptime performance. Assessing risk in utilizing cloud technologies and the application of the CIA Triad are stressed. Students will complete lab exercises working with cloud technology to replicate the business experience. This course begins to prepare the student for the CompTIA Cloud Essentials certification.

CYS 245 Introduction to Cybersecurity
1 credit

Prerequisite: none

The course provides students with an introduction to the basic and fundamental concepts of cybersecurity from both a technical and managerial perspective. Students will gain insight on common cyber attacks and the techniques for identifying, detecting and defending against cyber security threats. The course will cover the basics of physical, network and web security as well as standards and laws in cybersecurity. The knowledge gained in this course will provide students with a concrete foundation to further master the concepts of cybersecurity.

CYS 260 Governance Legal and Compliance
3 credits

Prerequisite: none

This course will introduce students to the challenges of governance, ethics, legal, and regulatory compliance through the eyes of information security professionals. Topics include compliance requirements in

response to key mandates and laws, including Sarbanes-Oxley, HIPAA, Privacy, Gram-Leach-Bliley, the Foreign Corrupt Practices Act (FCA), and the Payment Card Industry Data Security Standards (PCI DSS). The challenges of compliance and ethics in information security will also be examined.

CYS 345 Cybersecurity Defense in Depth
3 credits

Prerequisite: Suggested: CYS 245 Introduction to Cybersecurity. The student must have a general understanding of information security principles.

The course examines the world of cybersecurity risks and defenses that possess significant threats to governments and businesses. This course will provide knowledge, skills, and techniques to identify and address the many cybersecurity threats facing our world today. This course will provide a framework for current and future cybersecurity threats by first examining the history of cybersecurity. The course will then apply lessons learned in the past to current cybersecurity risks and defenses. Additionally, the course will attempt to predict future cybersecurity concerns and the necessary preparations needed to defend against them. Lastly, this course will examine how IT (Information Technology) security threats are constantly evolving and provide insight into cybersecurity defenses from a business and government perspective using real-world scenarios to demonstrate actual cybersecurity threats and the strategies used to defend against those threats. The course aligns with and will assist students in preparing for two industry certification programs: TestOut Security Pro and CompTIA Security+.

CYS 350 Cybersecurity Defense in Depth for the Nuclear Industry
3 credits

Prerequisite: none

The course examines the world of cybersecurity risks and defenses which poses significant threats to the nuclear industry infrastructure. This course will provide knowledge, skills, and techniques to identify and address the many cybersecurity threats facing the nuclear industry today. This course will provide a framework

for current and future cybersecurity threats by first examining the history of cybersecurity. The course will then apply lessons learned in the past to current cybersecurity risks and defenses. Lastly, the course will attempt to predict future cybersecurity concerns and the necessary preparations needed to defend against them. This course will examine how IT security threats are constantly evolving and provide insight into cybersecurity defenses from a nuclear industry perspective using real-world scenarios to demonstrate actual cybersecurity threats and the strategies used to defend against those threats.

CYS 400 Reverse Engineering 3 credits

Prerequisites: IT 211 Fundamentals of Programming, IT 240 Introduction to C++ Programming, IT 361 Computer Organization and Operating Systems, IT 406 Computer Forensics, IT 380 Overview of Information Security

This course provides students with a foundation in reverse engineering within the context of cybersecurity, penetration testing, malware analysis, and its applicability to cybersecurity attack strategies and countermeasures. Moreover, the course prepares students to use various penetration testing tools to analyze networks for vulnerabilities, and reverse engineering tools to perform malware analysis and decompilation of code. Intellectual property protections such as digital rights management and communication protocols utilizing static and dynamic techniques are also discussed. The course aligns with and will assist students in preparing for two industry certification programs: TestOut Ethical Hacker Pro and EC Council Certified Ethical Hacker (CEH).

CYS 401 Organizational Information Security 3 credits

Prerequisite: IT 380 Overview of Computer Security or equivalent course.

The course will provide learners with knowledge in the broad outlines of implementing information security initiatives in organizations. The course will cover the technical concepts as well as the managerial, operational and policy dimensions of information

security. The learners will also examine the personnel and organizational skills required to manage information security initiatives in organization consisting of staffing, training, certifications and ethical responsibilities.

CYS 403 Network and Application Security 3 credits

Prerequisites: IT 250 Business Data Communications (or related course work), and IT 380 Overview of Computer Security (or related course work)

This course covers the main concepts and models of network and application security, which include security models and threats, access control, secure routing and switching, cryptography and secure communication, and how to mitigate security threats. The course aligns with and will assist students in preparing for two industry certification programs: TestOut Routing and Switching Pro and Cisco CCNA.

CYS 426 Cyber Attacks and Defenses 3 credits

Prerequisite: IT 380 Overview of Computer Security

This course introduces cybersecurity threats and vulnerabilities, software and systems, compliance and assessment, security operations, security monitoring, and incident response, as well as the practices of penetration testing, *a.k.a.* ethical hacking, as a proactive measure to improving the overall security posture of a system or network. Students will learn to assess target systems and networks for vulnerabilities and exploits, detect security threats, and recommend and implement defensive, corrective, and preventative measures based on penetration test results.

CYS 450 Security Focused Risk Management 3 credits

Prerequisite: IT 380 Overview of Computer Security, or students should already be familiar with the concepts of information, security risks to information, and the challenges of protecting information.

This course will focus on providing students with insights, guidance and best practices in security focused risk management. Students will

review the fundamental principles of security focused risk management. Students will utilize a disciplined and standard approach to risk management including risk identification, risk assessment, risk prioritization, and risk prevention or mitigation. Students will learn to identify classes of possible vulnerabilities, threats, attack vectors, consequences and mitigation strategies.

CYS 455 Business Continuity   3 credits

Prerequisite: IT 250 Business Data Communications, or related course/work experience.

This course focuses on two important aspects of information security, data integrity, and data availability. Malicious attacks, natural disasters, and unplanned events can threaten the availability and integrity of an organization's data assets. This course emphasizes the development of business continuity and disaster recovery plans that result in action plans to mitigate the effect of a breach in security or the occurrence of a disaster.

CYS 456 Securing Mobile and Cloud Computing Environments   3 credits

Prerequisite: IT 250 Business Data Communications or equivalent networking experience.

This course introduces the secure design and management of ubiquitous computing environments formed by the convergence of fixed and mobile devices, shared services, cloud computing, and other Internet-based computing methods. You will learn best practices and challenges associated with managing these heterogeneous environments and ensuring their ability to communicate in a secure manner.

CYS 465 Cybersecurity Investigation and Case Studies For The Nuclear Industry   3 credits

Prerequisite: All other courses in the nuclear cybersecurity concentration.

This course provides a comprehensive analysis of the methods, tools, and best practices for responding to cyber security incidents and product vulnerabilities in the nuclear industry. It covers building a computer security incident response team (CSIRT) and a product security

team (PST) for security vulnerability handling. It includes a discussion of the best practices on conducting a cybersecurity investigation, which minimizes potential damage while ensuring proper handling of electronic data collection. Students review legal issues from a variety of national perspectives and consider the practical aspects of coordination with other organizations.

CYS 470 Secure Software Development   3 credits

Prerequisite: IT 380 Overview of Computer Security and IT 210 Object Oriented Programming, or IT 240 Introduction to Programming or prior knowledge of an Object Oriented Design programming language.

In today's environment, perimeter and infrastructure security is not enough to mitigate security attacks against data and information stored, transmitted, and processed by computer systems. In order to design and build secure IT systems, all elements of the system need to be secure. Unfortunately, more and more security vulnerabilities are exploited due to insecure software systems. This course gives insight, guidance, and best practices in the design, development, and testing of secure software systems.

CYS 475 Large Scale Cybercrime and Terrorism   3 credits

Prerequisite: none

This course will examine cybercrime and terrorism in global context and focus on large scale incidents that effect international security. The foundation of the course will emphasize the evolution of cybercrime and terrorism within the context of globalization and the increasing complexity of cybercrime and international, nation-less decentralized terror networks. The course will discuss the relationship of cybercrime and uses of information technology that cultivated and sustained current international terror networks. The course will also discuss emerging trends and potential threats such as Electromagnetic Pulse Attacks (EMPs) and methods (and limitations) to confront large scale cybercrime

and terrorism such as advanced data mining techniques by the Intelligence Community and use of Fusion Centers.

CYS 496 Cybersecurity Capstone 3 credits

Prerequisites: Students must have completed all the core requirements of the degree.

This capstone course will examine computer security technologies and principles, including access control, authentication, external attacks, software security, security assessment and testing, and legal issues in cybersecurity. This course includes a final research project that will expose students to real-life scenarios in cybersecurity.

ECO 260 Introduction to Microeconomics 3 credits

Prerequisite: none

Should a manufacturer produce automobiles or ventilators? Should a local government intervene when sugar cane farmers in an area burn stalks to expose cane and the smoke results in a costly rise in asthma treatment among children in a state-run Medicaid program? In this course you will sharpen your ability to understand choices you or others face in a range of personal, professional and public contexts as you are introduced to the framework economists use to compare alternatives faced by individuals, businesses and governments. Governments uniquely make rules. Governments also impose taxes offer incentives and make choices to redistribute wealth, protect, regulate hiring and conditions of work, internet service and air quality. It may surprise you to learn how microeconomic tools introduced in this course can be applied in such diverse contexts to measure and compare relative costs and benefits.

ECO 262 Introduction to Macroeconomics 3 credits

Prerequisite: none

Do you hear a lot about interest rates? How about negative interest rates? Macroeconomists consider interest rates and other economic variables because interest rates affect activities like hiring and firing of workers (employment) across a whole economy and even worldwide. You might care about interest rates because these affect borrowing costs. Interest rates also affect home and rental pricing and changes in pay on a yearly basis. In this course you will learn how economists measure and forecast economic factors like those mentioned here to assist state, local and federal governments in maintaining services to citizens, price stability and the broadest level of employment possible. You will also learn how powerfully macroeconomic factors affect you directly.

ECON 360 International Economics 3 credits

Prerequisite: none

This course builds on introductory micro and macroeconomics to analyze the world economy. Students investigate and apply economic theory to subjects, including: patterns of trade, trade agreements/restrictions, the flow of labor and capital, the international monetary system and exchange-rate issues, and the roles of international organizations such as the World Trade Organization and the International Monetary Fund. Students examine how the international economic system operates and the challenges it faces.

EGR 210 Introduction to Engineering Analysis 3 credits

Prerequisites: PHYS 203 Physics II and PHYS 204 Physics II laboratory

The goal of this course is to introduce a general problem-solving approach for the beginning engineering student. Introduction to Engineering Analysis focuses on how to solve (any) kind of engineering analytical problem in a logical and systematic way. The course helps to prepare the students for such analytically oriented courses as statics, strength of materials, electrical circuits, fluid mechanics, thermodynamics, renewable energy systems, etc.

EGR 280 Introduction to 3-D Modeling   3 credits

Prerequisite: none

As an introductory course in engineering graphics, this course begins with creating properly dimensioned 2-D sketches and progresses towards creating fully dimensioned 3-D parts. Students complete a couple of projects that practice their ability to create 3-D models. The focus of this course is drawing and modifications of 2-D sketch tools such as line, circle, arcs, rectangle, offset, fillet, chamfer, trim, mirror, move, rotate, copy, scale, stretch, and other commands. In addition, features commands including extrude, extrude cut, loft, revolve, wrap, helix, swept boss/base (sweep), and hole wizard will be introduced. Plus, building assemblies and creating detailed drawing documentation for manufacturers will be covered. Topics will include designing mechanical components to master the basics of SOLIDWORKS software.

Students registering for this course will be assessed a course resource fee.

EGR 290 Advanced 3-D Modeling 3 credits

Prerequisite: EGR 280 Introduction to 3-D Modeling

Building from the previous 3-D modeling course (EGR 280 Introduction to 3-D Modeling), this course covers the process of designing mechanical components (parts and assemblies) using SOLIDWORKS. This course begins with applications of equations and global variables and progresses towards enhancing students' ability to use SOLIDWORKS common tools and features such as multi-bodies, sheet metal, 3-D sketch, and weldments. Advanced projects challenge students and expand their skills to combine and apply mechanical design principles with computer design techniques and capabilities

Students registering for this course will be assessed a course resource fee.

EGR 310 Engineering Ethics

Prerequisites: none

This course provides an introduction to ethical theory and to the practical application of the theory to engineering. The course focus is on preparing engineers to identify, take responsibility for, and find solutions to potential ethical dilemmas in their future profession. Case studies of historical ethical issues are used to assist in integrating theory into practice.

ELEC 152 Circuit Theory I   4 credits

Prerequisites: PHYS 203 Physics II, PHYS 204 Physics II Lab, MAT 220 Calculus I or equivalent.

This course provides an introduction to the various principles of electrical circuit analysis. Topics include the study of voltage, current and resistance relationships, energy and power, analysis of circuits in different configurations, theorems for the analysis and simplification of circuits, capacitance, inductance, and transformers.

ELEC 153 Circuit Theory II   4 credits

Prerequisite: ELEC 152 Circuit Theory I, and MAT 221 Calculus II, or equivalent. Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, basics of differential and integral calculus and differential equations; physics I and physics II; DC circuit analysis; basic computer literacy for technical problem solving, including installing software, naming files, transferring files, and navigating the Internet.

This course is an introduction to the principles and applications of alternating current (AC) circuits. Topics covered include capacitor and inductor transient response, the sine wave, reactance, complex algebra and phasors, impedance, Kirchhoff's Law and network theorems (Norton's, Thevenin's, and superposition) in AC circuits, power in AC circuits, series and parallel impedances, impedance networks, filters, resonance, Bode plots, and polyphase systems. The topic of

engineering and technology standards is also discussed. This course contains a lab component.

ELEC 160 Electronics I — 4 credits

Prerequisite: ELEC 152 Circuit Theory I, and ELEC 153 Circuit Theory II, or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, calculus I (differentiation), calculus II (integration), differential equations, physics I, and physics II; DC and AC circuit analysis; basic computer literacy for technical problem solving, including installing software, naming files, transferring files, and navigating the Internet.

This course is an introduction to the study of semiconductor devices such as p-n junction diodes, bipolar junction transistors (BJT), field-effect transistors (FETs,) and metal-oxide-semiconductor field-effect transistors (MOSFETs), which enable students to perform analysis of direct current (DC) transistor biasing; small-signal and multi-stage amplifiers using BJTs, FETs, and MOSFETs; and frequency response of single and multi-stage transistor amplifiers. This course contains a lab component.

ELEC 161 Electronics II — 4 credits

Prerequisite: ELEC 152 Circuit Theory I, ELEC 153 Circuit Theory II, and ELEC 160 Electronics I, or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: algebra, trigonometry, calculus I (differentiation), calculus II (integration), differential equations, physics I, and physics II; DC and AC circuit analysis; diode and transistor based electronic circuits and amplifiers; basic computer literacy for technical problem solving, including installing software, naming files, transferring files, and navigating the Internet.

This course overviews the analysis and application of advanced electronic circuits. Topics include differential amplifiers, stage gain in decibels, input and output impedances, linear integrated circuit (IC) operational amplifiers, frequency response, Bode plots, active filters, digital-to-analog and analog-to-digital circuits, oscillators, and high frequency amplifiers. The course emphasizes troubleshooting of test circuits and analysis based on computer simulation. This course contains a lab component.

ELEC 201 Digital Electronics — 4 credits

Prerequisite: ELEC 161 Electronics II, or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, basics of differential and integral calculus and differential equations; physics I and physics II; DC and AC circuit analysis, electronics, feedback and operational amplifiers; electronic oscillators; basic computer literacy for technical problem solving, including installing software, naming files, transferring files, and navigating the Internet.

This course presents the principles and applications of digital circuits. Topics include number systems, binary arithmetic, logic gates and Boolean algebra, logic families, combinational and synchronous logic circuit design, logic minimization techniques (Karnaugh maps, Quine-McCluskey), counters, shift registers, encoders and decoders, multiplexors and demultiplexors, and interfacing. This course contains a lab component.

ELEC 202 Microprocessors — 4 credits

Prerequisite: ELEC 201 Digital Electronics, and IT 210 Object Oriented Programming, or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, basics of differential and integral calculus and differential equations; physics I and physics II; DC and AC circuit analysis, electronics, feedback and operational amplifiers, electronic oscillators, and digital electronic circuit design; basic computer programming for technical problem solving, including installing software, naming files,

transferring files, and navigating the Internet.
This course presents the principles and applications of microprocessors, including hardware and software, interfacing, assembly language programming, and microprocessor-based systems. It presents 8-, 16-, and 32-bit microprocessor technology and features. This course contains a lab component.

ELEC 210 Programmable Logic Controllers 3 credits

Prerequisite: ELEC 202 Microprocessors, or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, basics of differential and integral calculus and differential equations; physics I and physics II; DC and AC circuit analysis, electronics, feedback and operational amplifiers, electronic oscillators, digital electronic circuit design, and microprocessor assembly level programming; basic computer programming for technical problem solving, including installing software, naming files, transferring files, and navigating the Internet.

This course introduces students to programmable logic controllers (PLCs) and their applications. Topics include PLC architecture, relay logic and ladder logic programming, PLC timers and counters, troubleshooting, process control and networking, and industrial applications. This course contains a lab component.

ELEC 306 Advanced Digital Design 3 credits

Prerequisite: ELEC 202 Microprocessors, or equivalent.

This course presents systematic design methods for synthesizing sequential digital circuits using hardware description language (HDL), while details of its associated languages too are brought to familiar ground. Specification, modeling, and design principles of sequential systems, as well as design implementation and testing using programmable logic devices and Computer

Aided Design (CAD) tools are studied. The course includes laboratory experiments and a group project.

ELEC 307 Microcontrollers 3 credits

Prerequisite: ELEC 202 Microprocessors or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, basics of differential and integral calculus and differential equations; physics I and physics II; DC and AC circuit analysis, electronics, feedback and operational amplifiers, electronic oscillators, advanced digital logic circuit design, and microprocessor assembly level programming; basic computer programming for technical problem solving, including installing software, naming files, transferring files, and navigating the Internet, and project management techniques.

This course builds on the student's background from first courses in logic design and microprocessors. This course discusses the architecture used in the design of PIC microcontroller-based systems, followed by assembly language programming, interfacing, and communications. Interrupts, timers, data converters, and embedded systems design are also covered. The course includes laboratory experiments and a group project.

ELEC 321 Control Systems 3 credits

Prerequisite: ELEC 202 Microprocessors, or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, basics of differential and integral calculus and differential equations; DC and AC circuit analysis, electronics, feedback and operational amplifiers, electronic oscillators, and digital electronic circuit design and microprocessor fundamentals; basic computer programming for technical problem solving,

including installing software, naming files, transferring files, and navigating the Internet. This is an introductory course on continuous linear control systems covering analysis, design, and practical applications. Modeling first and second-order dynamic physical systems with feedback control, transient response and steady-state analyses, Routh-Hurwitz stability criteria, roles of feedback in controlling steady-state errors, frequency response design methods (Bode, Nyquist), etc. are covered. The course emphasizes the application of established methodology with the aid of examples, calculators, and computer programs such as MATLAB.

ELEC 331 Digital and Analog Communications   3 credits

Prerequisite: ELEC 201 Digital Electronics, or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, basics of differential and integral calculus and differential equations; physics I and physics II; DC and AC circuit analysis, electronics, feedback and operational amplifiers, electronic oscillators, and digital electronic circuit design; basic computer literacy for technical problem solving, including installing software, naming files, transferring files, and navigating the Internet.

This is a technology focused course covering the principles and applications of analog and digital communication circuits. Analysis of amplitude, frequency, and phase modulation and demodulation, transmitters and receivers, digital communication techniques, coding and multiplexing, network communications and protocols, transmission lines and media, wave propagation and television, optical fibers, wired and wireless communications, communication test equipment and troubleshooting, and communication standards are covered.

ELEC 345 Electric Machines   3 credits

Prerequisite: ELEC 201 Digital Electronics, or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, basics of differential and integral calculus and differential equations; physics I and physics II; DC and AC circuit analysis, electronics, feedback and operational amplifiers, electronic oscillators, and digital electronic circuit design; basic computer literacy for technical problem solving, including installing software, naming files, transferring files, and navigating the Internet.

This course covers the principles and applications of direct current (DC) motors and generators, ideal transformers and three-phase transformers, three-phase induction machines, equivalent circuit of the induction motor, synchronous generators and motors, and motor speed control.

ELEC 350 Power Electronics   3 credits

Prerequisite: ELEC 201 Digital Electronics, IT 390 Project Management, or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, basics of differential and integral calculus and differential equations; physics I and physics II; DC and AC circuit analysis, electronics, feedback and operational amplifiers, electronic oscillators, and digital electronic circuit design; basic computer literacy for technical problem solving, including installing software, naming files, transferring files, and navigating the Internet.

In this course you will learn about various circuit techniques used in power electronics. Topics include: Characteristics of power transistors and diodes, switching-mode DC-DC converters, including buck and boost converters and regulation of DC-DC converters by PWM, rectification using diodes, power factor correction,

switch-mode DC power supplies, DC-AC inverters, and applications of power electronics in motor drives, UPS, and power systems.

ELEC 360 Generation and Transmission of Electric Power — 3 credits

Prerequisite: ELEC 350 Power Electronics, or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, basics of differential and integral calculus and differential equations; physics I and physics II; DC and AC circuit analysis, electronics, feedback and operational amplifiers, electronic oscillators, digital electronic circuit design, and power electronics circuits analysis; basic computer literacy for technical problem solving, including installing software, naming files, transferring files, and navigating the Internet.

This course includes comparing the technologies of power generation from hydro, thermal, nuclear, and wind energy sources; introducing transmission line theory-based analysis of power distribution line and its equivalent circuits; applying components in power distribution systems including substations, protection, and low voltage distribution; and calculating the cost of electricity. The course also includes an introduction to direct current transmission and optimal power-flow analysis, as well as an assessment of solid-state controllers for power flow and harmonics. Finally, the course includes a software-based project wherein students have the opportunity to incorporate project management techniques.

ELEC 370 Instrumentation and Data Acquisition — 3 credits

Prerequisites: ELEC 201 Digital Electronics, and IT 210 Object Oriented Programming, or equivalent.

Required Knowledge: In order to comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, basics of differential and integral calculus and differential equations; physics I and physics II; DC and AC circuit analysis,

electronics, feedback and operational amplifiers, electronic oscillators, and digital electronic circuit design; basic computer programming for technical problem solving, including installing software, naming files, transferring files, and navigating the Internet.
This course provides an introduction to virtual instrumentation and data acquisition. Topics covered include virtual instruments, sub virtual instruments, editing and debugging, structures, arrays and clusters, graphs and charts, data acquisition, and analysis. Power electronics design and engineering standards are also dealt with. This course contains a lab component.

Students registering for this course will be assessed a course resource fee.

ELEC 495 Integrated Technology Assessment BEL — 3 credits

Prerequisite: In order to comprehend the course materials, the students need to have the following knowledge: This is a required course in the B.S. Electrical Engineering Technology program; it is open only to B.S. Electrical Engineering Technology students who have completed all other technology core requirements and most, if not all, concentration course and general education requirements.
This is the required capstone course for the B.S. Electrical Engineering Technology program. It requires reflections on the student's past academic and professional experiences and using the information gained from this reflective exercise to develop evidence-based learning statements related to the Electrical Engineering Technology degree outcomes, resulting in the integrated technology assessment (ITA) portfolio.

The course features an online examination designed to assess the basic knowledge and understanding achieved in electrical engineering technology. This examination is administered in Module 2 through Module 7.

Finally, the student is required to undertake a hardware based capstone project spread through all the course modules, and demonstrate integrated learning experience and the outcomes of this degree program.

ENG 101 English Composition 3 credits

Prerequisite: none

This class provides students with foundational knowledge and skills to prepare them for academic and professional writing. By analyzing the work of other writers, students will learn to approach writing from a rhetorical and genre-based perspective. They will practice sentence- and paragraph-level writing, learning to revise and correct their own work. They will also work on finding, documenting, and effectively integrating sources into a research-based essay. Both traditional (textual) and multimodal (textual and visual) composition will be addressed.

ENG 101A Advanced Composition 3 credits

Prerequisite: none

This class provides students with foundational knowledge and skills to prepare them for academic and professional writing. By analyzing the work of other writers, students will learn to approach writing from a rhetorical and genre-based perspective. They will practice sentence- and paragraph-level writing, learning to revise and correct their own work. They will also work on finding, documenting, and effectively integrating sources into a research-based essay. Both traditional (textual) and multimodal (textual and visual) composition will be addressed.

ENG 101ELL College Composition for English Language Learners 3 credits

This section of college composition is tailored to the special needs of English language learners. It will cover sentence-level writing (grammar, mechanics, and style), paragraph writing, and writing in a variety of essay formats, culminating in a persuasive research-based essay. Students will practice important skills such as developing a research question, conducting library research, developing a thesis, and appropriately integrating sources.

ENG 102 Composition II 3 credits

Prerequisite(s): ENG 101 Composition I, ENG 101A Composition I, or equivalent (required).

This course is designed to help you improve your academic and workplace writing skills. The course emphasizes research-based, argument-driven writing. You will complete a research paper, a workplace proposal, and an oral presentation related to your academic discipline or profession. You will practice finding, evaluating, and citing sources; paraphrasing and summarizing; outlining and paragraphing; and revising and proofreading.

ENG 102A Advanced Composition II 3 credits

Prerequisite: ENG 101 Composition I, ENG 101A Composition I, or equivalent (required).

This course is designed to help you improve your academic and workplace writing skills. The course emphasizes research-based, argument-driven writing. You will complete a research paper, a workplace proposal, and an oral presentation related to your academic discipline or profession. You will practice finding, evaluating, and citing sources; paraphrasing and summarizing; outlining and paragraphing; and revising and proofreading.

ENG 202 Business Writing 3 credits

Prerequisite: ENG 101 English Composition, or equivalent.

Business Writing assists students in becoming confident, efficient business communicators. Students learn and apply strategies for designing and delivering effective workplace messages, both written and oral, that address audiences, purposes, and common business situations and problems. Using scenario- and case-based assignments, students analyze audience needs, define outcomes for their communication, and plan strategies for successfully achieving those outcomes. The course covers digital and routine communication forms, including reports, proposals, and presentations. Business Writing equips students with a range of tools to navigate today's business world successfully.

ENG 202 duplicates BUS 210 Writing in the Workplace. Credit in only one of these courses will be applied toward graduation.

ENG 312 Scientific and Technical Writing   3 credits

Prerequisite: ENG 101 English Composition, or equivalent.

Scientific and Technical Writing focuses on the development and application of rhetorical strategies used in writing about science and technology. You will work on communication projects in your chosen scientific/technical communication fields; analyze writing situations and develop strategies for addressing audiences, organizing information, using appropriate style, and presenting the work using effective document design for both technical and non-technical readers; and produce writing designed to make even "hard" science and technology accessible. Let's get started!

ENG 314 Careers in Professional Writing   3 credits

Prerequisite: ENG 101 English Composition, or equivalent suggested.

Careers in Professional Writing surveys career paths and current trends and developments in professional writing. Students explore the markets and professional associations for writers in technical, scientific, and medical arenas, as well as analyze and compose various professional documents that demonstrate the ability to apply composing, revision, and collaborative strategies necessary for professional writing success. A key component is the assessment of students' current writing skills and development of an individualized plan for acquiring additional skills that effective professional writers need.

ENG 315 Zombies in Literature and Popular Culture   3 credits

Prerequisite: none

Why has popularity in zombies grown so rapidly in recent years? What makes the undead marketable? What accounts for their prominence in modern literature, film, and pop culture? From horror to humor, the zombie has infiltrated our society for decades (even centuries), enticing us to ponder our collective fascination with the undead and our own humanity. In this course, students will examine the historical, literary, social, psychological, and the pop cultural origins and impact of zombies. Consider how social, gender, or even cultural roles change in a zombie-infested world. Read The Zombie Survival Guide to discuss leadership strategies for surviving in a world populated by zombies. Watch films like Night of the Living Dead and television shows like The Walking Dead.

Throughout this course, there will be subject matter and material covered in the readings, films, and discussions of a violent nature. Please use your own discretion to gauge whether or not this course is right for you.

ENG 316 Writing in the Global Marketplace   3 credits

Prerequisite: ENG 101 English Composition, or equivalent.

Writing for the Global Marketplace emphasizes the importance of intercultural competence and sensitivity to professional communication, both in print and online, by examining several Web-based, print-based, and presentation genres for common business functions from an intercultural perspective. Students study how audience, purpose, persona, and context in certain cultures should inform decisions regarding content selection, source usage, document structure, tone, and other conventions in professional communication. Includes analysis of basic models of culture as applied in professional business settings world-wide, as well as how American business communication norms differ from and must be adapted for other cultures.

GENE 201 Introduction to Genetic Genealogy   3 credits

Prerequisite: none
In this course, you will learn how to interpret and analyze DNA test results provided by testing companies to answer genealogical questions. You will observe how DNA is inherited and used by genealogists to

examine relationships, ancestry, and descendants, including genetic cousin matches. Using the four main categories of DNA (Y-DNA, mtDNA, atDNA, and X-DNA), you will identify, recreate, and study genealogical relationships. By applying test results to third-party tools, you will deeply analyze data to maximize testing results. Additionally, you will examine the ethical issues associated with DNA test results and learn how DNA can play a vital role when documentation from other sources is not available or is inconclusive. Finally, you will apply the best practices described in this course to design a strategic DNA testing plan to solve a specific genealogical problem for a client.

GEOL 108 Earth Science and Society 3 credits

Prerequisite: none

The three threads of this course are Earth, as represented by the four natural spheres—atmosphere, biosphere, hydrosphere, and lithosphere; Society, as represented through the effects of Earth processes on humans and society and the effects of the human existence on the physical nature of the Earth; and Technology, which has greatly expanded in geoscience research. These threads are tied together by our semester-long project that enables you to relate your studies directly to your community. Everyone will select a study area—your hometown, your current location, or another area with which you are familiar—and conduct a mini–Natural Resources Inventory of the area as related to each of the four natural spheres assessing the quality of the air and water, the land cover, and geologic hazards.

This course requires the use of Microsoft Excel.

This course replaces GEOL 107. Credit for only one of these courses will be applied toward graduation.

GEOL 114 Introduction to Oceanography 3 credits

Suggested prerequisite: Basic Algebra

This course introduces oceanography as an integrated science that utilizes many basic sciences to understand the ocean that dominates the surface of our planet.

During the course we'll explore the global ocean/atmosphere system as well as waves, tides, and currents of the world ocean with a focus on understanding its impact on our lives. Our studies will span the globe to give you an up-close view of some of the most significant challenges facing our marine ecosystem including climate change, pollution, and other human activities. We'll also explore the adaptations of marine animals and other inhabitants of the ocean in the face of such challenges.

This course replaces GEOL 115. Credit for only one of these courses will be applied toward graduation.

HEM 125 Introduction to Homeland Security 3 credits

Prerequisite: none

This course provides an overview of the discipline of homeland security and emergency management. Since the September 11th terrorist attacks, homeland security and emergency management have evolved in response to the changing threat landscape. This course will address the all-hazards approach to homeland security and the numerous components that encompass this vast and ever-changing field. Topics covered include: the need to balance terrorism threats, natural disasters, and other hazards; the critical role of crisis communications and social media; intelligence and counterterrorism, border security and immigration; and transportation safety and security. Particular attention is paid to emerging threats to cybersecurity and the sixteen critical infrastructure sectors. Finally, the principles of all-hazards risk management including

mitigation, preparedness, response, and recovery will be covered throughout the course in support of the larger roles and structures of the homeland security enterprise. As you begin your Homeland Security and Emergency Management degree, you engage with the most important threats and governing responses, embarking upon your continuous professional development within the homeland security and emergency management community.

This course was cross-listed with CJ 125. Credit for only one of these courses will be applied toward graduation.

HEM 350 International Terrorism   3 credits

Suggested prerequisite: CJ 101 Intro to Criminal Justice, or equivalent.
This course provides an examination of the historical, political, social, religious contexts, and modern manifestations of international terrorism and terrorist organizations. Terrorism originating in the Middle East, Europe, Asia, and Latin American will be included.

This course was cross-listed with CJ 350. Credit for only one of these courses will be applied toward graduation.

HEM 352 Domestic Terrorism   3 credits

Suggested prerequisite: CJ 125 Introduction to Homeland Security, or equivalent.
This course introduces students to terrorism originating in the United States. Homegrown terrorism and its unique characteristics will be studied, as well as the foundations of domestic terrorism, with an examination of its history and philosophies. Topics include current and active domestic terrorist groups, their organizational structure, philosophies, and networks. Students will study the causes and dynamics of different types of domestic terrorism, along with the strategies used combating this phenomenon.

This course was cross-listed with CJ 352. Credit for only one of these courses will be applied toward graduation.

HEM 356 Emergency Management   3 credits

Suggested prerequisite: HEM 125 Introduction to Homeland Security, or equivalent.
This course covers the organization and management of the various aspects of emergencies due to natural disasters, man-made disasters, terrorism, or war. Reactive procedures covered will include response, mitigation and recovery efforts. Proactive measures will include the preparedness and training of both government entities and private citizens.

This course was cross-listed with CJ 356. Credit for only one of these courses will be applied toward graduation.

HEM 450 Counterterrorism   3 credits

Suggested prerequisite: HEM 350 International Terrorism, HEM 352 Domestic Terrorism, HEM 354 Managing Homeland Security, or HEM 355 Analyzing Intelligence, Terrorism and National Security.
This course introduces the principles and approaches to countering terrorism in the United States and abroad. Students will examine the question of jurisdiction and activities associated with counterterrorism; whether they should be primarily law enforcement-oriented or military-oriented. The legal and ethical concerns and the restrictive rules of collecting intelligence by military and other non-law enforcement organizations are analyzed.

This course was cross-listed with CJ 450. Credit for only one of these courses will be applied toward graduation.

HEM 460 Infrastructure Security and Policy   3 credits

Suggested prerequisite: HEM 125 Introduction to Homeland Security, or equivalent.
This course deals with the various methods and techniques that have been developed to protect society's critical infrastructure, as well as their influence on policy and decision-making. It covers the historical background of critical infrastructure and its importance; exploring current trends in infrastructure sensitivity and the

impact on a networked environment. The course embraces an all-hazards approach to homeland security, critical infrastructure protection and assurance, and emergency management. The course will examine the National Response Framework (NRF) and how it can be applied locally; public-private partnerships; information sharing; the need for resiliency planning to respond to changes within the threat environment; risk assessments; and new, related regulations.

This course was cross-listed with CJ 460. Credit for only one of these courses will be applied toward graduation.

HEM 498 Homeland Security and Emergency Management Capstone   3 credits

Prerequisite: Students must have completed all other requirements of the degree, completed the written English requirement, and completed the Information Literacy requirements. Students must be within 12 credits of degree completion.

The Homeland Security and Emergency Management capstone is intended as the last course in the major. Throughout the term, students will discuss various topics in regards to the homeland security enterprise and emergency management; including preparation, mitigation and recovery from man made, natural and accidental disasters. Students will also research and submit application papers, the topics of which will reflect the integrated components of homeland security and emergency management. This course is designed to allow students the opportunity to demonstrate their abilities to understand, analyze, synthesize and present the content, concepts, policies and theories in the field.

HIS 101 United States History I   3 credits

Prerequisite: none

This course is an introductory survey of US history from pre-European contact through the end of Reconstruction in 1877. Students will examine the major political, social, and economic trends in the American colonies and new nation, with a particular focus on diversity and cross-cultural encounters. Students will learn to think like a historian by contextualizing the past through a research project about a major trial in early American history, applying historical information to our contemporary world, and reading and interpreting primary sources.

This course uses a lower-cost interactive webtext instead of a traditional textbook.

HIS 102 United States History II   3 credits

Prerequisite: none

This course is an introductory survey of US history from the end of Reconstruction in 1877 through the recent past. The course examines the evolution of the United States from a nation torn apart by war to a global superpower. Students will study major political, social, and economic trends in the modern United States, with a particular focus on diversity and cross-cultural encounters. Students will engage in primary and secondary source analysis and learn to communicate historical arguments using a variety of tools.

This course uses a lower-cost interactive webtext instead of a traditional textbook.

HIS 120 World History I   3 credits

Prerequisite: none

This course examines the rise of the major world civilizations in Asia, Africa, Europe, and the Americas from their earliest beginnings through the fifteenth century. It focuses on economic, social, political, and cultural factors that contributed to their birth and sustained their growth and development. Students will explore the political institutions, social systems, religious systems, and cultures of these civilizations. They will also look at the contributions of individuals to their communities. In particular, the course highlights the interconnectedness of many societies as they passed ideas, technologies, people, and goods back and forth to each other.

HIS 290 Pirates on the High Seas — 3 credits

Prerequisite: none

Buccaneers. Privateers. Marauders. Sea Dogs. Uncover the true history of pirates on the high seas in the 16th through the 18th centuries, with a special focus on the Golden Age of Piracy in the Atlantic from 1650-1739. This course compares the cultural and social myths about pirates with reality, including the intersection of piracy with the global economy, imperial system, and social and political history of the colonial era. It also compares the Golden Age of Piracy to other eras, including piracy in our current world. Students in this course will investigate the world of Atlantic Piracy by building their skills in independent scholarly research.

HIS 322 Revolutionary America — 3 credits

Suggested prerequisite: HIS 101 United States History I, or equivalent recommended.

This course examines the conditions in both the American colonies and Great Britain that caused resentment, rebellion, a declaration of independence, war, and eventually led to the formation of a new kind of government. This course will be a thematic exploration into some important historical problems that remain central to American life and culture, including the origins and development of democracy and republicanism, the role of women, slaves, and Native Americans in the upheaval, and the way we frame our nation's founding today. Through primary and secondary source analysis, students in this course will also gain valuable research, writing, and critical thinking skills useful in a wide variety of careers.

HIS 325 African American History — 3 credits

Prerequisite: none

This course surveys the history of the African American people from their origins in Africa, through slavery and emancipation, through waves of migration from countryside to city and South to North, through wars and depression, through the recent Civil Rights and Black Power Movements, to the present. Students will focus on questions of social development, political struggle, culture, and identity. Through 5 key themes of challenges, culture, causality, courage and complexity, students will apply historiographical skills to unravel issues of the present day and interpret a variety of sources. Students will also have the opportunity to select a topic of their choice and history.

The course uses no-cost open educational resources in place of a textbook.

HIS 326 A History of Women in America 3 credits

Prerequisite: none

This course examines the history of the United States from the colonial period to the 21st century from the perspective of women. The course will focus on women's roles as individuals, constituents of families, and community members. Students compare the myths and ideology of womanhood with the diversity of American women's experiences. The course also examines the impact of changes in the economy, society, and politics on women's roles and perspectives. Students in this course will enhance their understanding of diversity and hone their research and source analysis skills, useful in a wide variety of careers.

HIS 335 United States Civil War — 3 credits

Prerequisite: none

The Lincoln presidency. Antietam. The Emancipation Proclamation. Gettysburg. Draft Riots. Sherman's March. Appomattox. The Civil War was a pivotal turning point in American history and its legacies are still with us today. From its antecedents in Antebellum America to its legacies in the Reconstruction era through today, this course will investigate the causes and consequences of the war. The course will cover the major battles and the military and political circumstances that led to the Union's victory and Confederacy's defeat. It also covers the social, cultural, and economic histories of the war and its impact on the people who lived through it on the battlefields and the home front.

HIS 350 World War I   3 credits

Prerequisite: none

Known colloquially as the "Great War" and the "War to End All Wars," World War I was a watershed event in the twentieth-century. Borne out of imperial rivalries and complex European alliances, the war erupted suddenly in 1914 and ended more than four years later, at the eleventh hour of the eleventh day of the eleventh month. In the years between, the Allied and Central Powers engaged in a horrific and devastating "Total War," drafting unprecedentedly large armies and transforming their economies to support the war effort, yet producing little more than stalemate and death on much of the Western Front. The Great War changed how wars were fought and introduced new technology to the battlefield. Students in this course will examine the origins and consequences of the war, the major strategic decisions, as well as the intertwining history on the homefront of the combatant nations. Students will engage with the historical material through innovative games and simulations which are designed to allow students to experience the war's major decision points and strategy as if they were really there. Along with the simulations, students will read primary source accounts of the war to understand the war's significance, its toll on the "Lost Generation," and its ramifications today as we commemorate the war's one-hundredth anniversary.

This course includes gaming technology that requires students to have a web browser that meets the minimum Excelsior system requirements.

The course uses no-cost open educational resources in place of a textbook.

HIS 353 Holocaust   3 credits

Prerequisite: none

This course examines the "Holocaust," the deliberate, systematic, and mechanized murder of more than six million Jews and hundreds of thousands of other victims by Nazi Germany during World War II. The class will take a broad view of this atrocity, seeking to explain why and how it was possible and, ultimately, asking what lessons we can learn from this history for the present day. The Holocaust will be approached as an event with multiple, complex causes: a centuries-old history of European anti-Semitism; the advent of modern "racial science" and ethnic nationalism; the global economic, social, and political crises of the early twentieth century; the rise of Adolf Hitler and the Nazi Party in Germany; the structure of the Nazi State; the context of Hitler's "war of annihilation" on the Eastern Front; and the willingness of many "ordinary" Germans and non-Germans to participate in the Nazi's plans. We will look at the experiences of victims and "bystanders" as well as perpetrators in order to understand this tragedy from multiple perspectives. Students will gain valuable research, writing, and critical thinking skills while also learning to analyze complex ethical problems.

HIS 354 Transatlantic Slave Trade   3 credits

Suggested prerequisite: HIS 101 US History I, or equivalent.

This course examines the nefarious transatlantic slave trade which drew together multiple continents and operated from 1441–1867. Topics covered include: the origins of the racialized system of slavery, individual accounts of the trade, the consequences of the trade on the economies, societies, and cultures of Africa, Europe, and the Americas, and abolition. Students use primary and secondary sources and the transatlantic slave trade database to enhance their research and critical thinking skills, useful in a wide variety of careers.

HIS 356 The Global Cold War   3 credits

Suggested prerequisites: A lower-level history course such as HIS 101, HIS 102, or HIS 120.

This course examines the period in world history from the Yalta Conference in 1945 to the end of the Soviet Union in 1991, generally called the Cold War. Students examine the political, economic, and militaristic motivations behind superpower behavior and the role of these actions in laying the foundations for global circumstances today. In exploring the relationship between the First, Second, and Third Worlds in this period, students understand the complex

mix of individuals and ideology that shaped the events of the Cold War and continue to dramatically shape global affairs today.

This course was cross-listed with MLS 556. Credit for only one of these courses will be applied toward graduation.

This course replaces HIS 351 Cold War. Credit in only one of these courses may be applied toward graduation.

HSC 112 Medical Terminology   3 credits
Prerequisite: none
This course will prepare you for accurate oral and written use of medical language in a variety of health care settings and from multiple practitioner perspectives. You will gain a practical understanding of medical terminology that includes basic elements and word structure, body references, and specific vocabulary of the human biological systems. You will learn to interpret medical language into common terms and the proper language structure when using medical terms.

HSC 121 Health Care in the United States 3 credits
Prerequisite: none
This course provides the students with opportunities to explore the structure and function of the United States (US) health care delivery system. Students will learn about health care finance, settings for care, modes of delivery, the role of technology, and key trends in health care.

HSC 124 Professionalism in Health Care 3 credits
Prerequisite: none
This course provides students with an opportunity to explore multiple aspects of professionalism in the health care occupations. Topics covered include cultural competence, legal and ethical issues, effective communication, interdisciplinary teams, and professional competence.

HSC 205 Introduction to Health Care Management   3 credits
Prerequisite: none
This course will provide students with a basic overview of the necessary skills and knowledge for a career in health care management. A broad overview, with a health care perspective, will be presented on such topics as leadership, strategic planning, marketing, finance, quality, technology, legal issues, and human resources.

HSC 214 Ethics and the Health Professions   3 credits
Prerequisite: none
This course provides students with an opportunity to explore ethical principles and apply ethical reasoning to dilemmas in health care environments. During this course, students will discuss multiple challenges faced by health care professionals and approaches a health care manager can use to protect the rights of individuals, families, and staff.

HSC 220 Spanish Communication for the Health Care Professions   4 credits
Prerequisite: none
This course introduces novice Spanish language concepts with a focus on speaking, listening, reading, and writing for healthcare professionals. You will participate in the Language Labs, where you will learn grammar, vocabulary, and pronunciation to give you skills to effectively speak and listen with Spanish-speaking individuals. You will also discuss the cultures of the Spanish-speaking world in relation to health. You will learn to understand cultural competency. At the end of the course, you will compile a knowledge base document called a Toolkit project for your future use.

This course was cross-listed with SPA 220. Credit for only one of these courses will be applied toward graduation.

HSC 235 Sex, Gender And Health   3 credits
Prerequisite: none
Students are introduced to issues in gender health from the biopsychosocial perspective. The role of social norms and expectations, social and political policy, family and community, lifestyle factors, will be explored in the context of health outcomes. Disparities that individuals face in the health care system based on sex and gender will be examined.

HSC 280 Biology of Health and Disease

Prerequisites: None

This course uses a systems approach to provide an overview of fundamental human structures and functions in normal versus diseased states. Basic concepts and proper terminology of all human organ systems will be applied through the perspective of the healthcare industry. Broader risk factors impacting human health at both the individual and population levels will be explored through interactive discussions, videos, case studies, and student-created multimedia presentations.

HSC 292 Associate In Health Sciences Capstone   3 credits

Prerequisite: Students must have completed all other requirements of the professional and additional credit components degree including the written English requirement, and be within 9 credits of completing the arts and sciences component.

This course will assess the knowledge students gained throughout the curriculum of the Associate's in Health Science degree program. Students will have the opportunity to demonstrate their understanding of the health care delivery system as it relates to specific health care professions. Students will also exercise and refine their professional skills through activities such as resume writing and responding to interview questions. Students will apply effective critical thinking and communication skills throughout the course.

HSC 302 Principles of Health Care Management   3 credits

Prerequisite: none

This course provides you with critical knowledge to fulfill the role of health care manager. In this course you will be introduced to US law, governing bodies, and regulatory controls that set standards for healthcare and challenge health care managers when addressing legal, financial, ethical, and quality control issues. You will investigate current trends and critical issues that have emerged in the 21st century, and you will explore ways in which health care managers can respond to these changes. You will learn about opportunities as well as challenges present in today's health care environment that are important to health

care managers when managing conflict and making decisions within a health care organization.

HSC 304 Exercise for Health   3 credits

Prerequisite: none

People have long known about the importance of getting enough exercise. Yet life often gets in the way of developing sustainable exercise routines for healthy living. Lack of knowledge can put people at risk for injury. In this course, students learn how to develop safe, effective, and goal oriented exercise programs for both healthy people and those living with chronic illnesses or physical limitations. Current evidence-based exercise protocols and strategies are explored. Common myths are discussed. Motivational techniques for developing and sustaining exercise programs are examined.

HSC 305 Critical Issues in Health Care Management   3 credits

Prerequisite: none

This course provides you with an overview of current issues that influence the delivery of health care. During this course, you will investigate current trends and critical issues that have emerged in the early 21st century and will explore ways in which health care managers can respond to these changes. You will learn about opportunities as well as challenges present in today's health care environment that are important to health care managers.

HSC 310 Writing And Communication in the Health Science Professions   3 credits

Prerequisite: none

Effective communication skills are vital in the health professions. Taking this course early in a degree program provides essential preparation for academic work. A broad range of topics are explored including communication styles, cultural awareness, communication through social media, writing as a process, and effective professional presentations. The essential skill of writing to persuade, while communicating important health practices, is practiced preparing for communicating with clients and the public. This is a writing-enriched (WE) course.

HSC 312 Ethics of Health Care   3 credits

Prerequisite: none

This interdisciplinary course guides students through a systematic analysis of contemporary ethical issues in health care and human services. Students will use ethical theories, principles, and codes to develop ethical decision-making processes for addressing difficult ethical dilemmas that are often encountered by professionals in human services and healthcare fields. As legal policies and historical considerations often underpin ethical issues, students will become conversant in pertinent policies to better understand the complexities of the ethical issues encountered by professionals.

This course was cross-listed with PHL 312. Credit for only one of these courses will be applied toward graduation.

HSC 316 Mind, Body and Health   3 credits

Prerequisite: none

This course examines the psychology of behavior as it relates to health and fitness. You will learn how stress and lifestyle, physical activity, and diet influence human health and fitness. We will examine health and fitness across the life-span, as well as how behavior impacts health and behavioral changes to improve health outcomes. We will study research to understand evidence-based practices that health practitioners use to promote healthy behavior. And learn how theories inform methods for influencing behavioral changes. You will develop a holistic plan for diet and physical fitness for various target populations. This course is appropriate for professionals working in personal health training or other health-related or psychology-related fields.

This course was cross-listed with PSY 316. Credit for only one of these courses will apply toward graduation.

HSC 320 Health Care Issues in Culturally Diverse Populations   3 credits

Prerequisite: none

This course introduces students to the concepts of culture and cultural diversity as they relate to health, illness, and the health care delivery system.

There are many types of diversity, including but not limited to religious, racial, ethnic, gender identity, sexual orientation, socioeconomic, disability, regional, and others that exist in our global society. We will examine the roles that belief systems, values, and health practices play in people's interactions with health providers. Common myths and assumptions will be explored. We will also investigate strategies that health professionals can implement to create more inclusive services.

This course was cross-listed with SOC 320. Credit for only one of these courses will be applied toward graduation.

HSC 330 Legal and Regulatory Environment of Health Care   3 credits

Prerequisite: none

In this course you will be introduced to U.S. law and the legal process in healthcare. You will acquire a foundation for understanding the scope, limits and consequences of legal obligations. You will also learn about the governing bodies and regulatory controls which set standards for healthcare, and you will apply your knowledge in identification of legal issues often encountered in health administration.

HSC 331 Psychosocial Impact of Chronic Illness on Person and Environment   3 credits

Prerequisite: none

Chronic illness affects individuals, families, communities, and society. Students will learn how to critically examine these complex interactions from both theoretical and practical perspectives. This course explores the psychological and social aspects of chronic illnesses, with an emphasis on empowerment of individuals living with them. Students will develop an understanding of stigma in the experience of chronic illness. Emphasis will be placed on connecting individuals, families, and communities with resources to successfully manage chronic conditions.

This course was cross-listed with PSY 331 and SOC 331. Credit for only one of these courses will be applied toward graduation.

HSC 402 Managing Stress 3 credits

Prerequisite: none

This course focuses on the nature of stress and the connection between mind, body and spirit. Students will study the different theoretical models of stress from a variety of theorists while exploring coping strategies and relaxation techniques for healthy living in today s changing world. Students will also create an individualized stress management program plan.

HSC 403 Nutrition for Wellness 3 credits

Prerequisite: none

This course uses several short game-based learning activities to learn decision-making about nutrition based on environmental circumstances and health conditions. Students learn how nutrition relates to health, wellness, and disease prevention. Students develop personalized nutrition plans and gain an understanding of the impact of nutrition at all stages of life. Students will gain knowledge on how to separate fact from fiction. Food safety and innovations in food technology will be examined.

HSC 407 Health and Wellness 3 credits

Prerequisite: none

Learn about the theory and practice of health and wellness, inside and out. This course begins with an opportunity to assess health and wellness at individual and community levels. From there you will learn to apply theory and evidence-based practice to develop health and wellness interventions, including individual planning and group-based programs. You will learn the essential components of creating interventions directed toward specific at risk populations, as well as targeting specific behaviors like smoking cessation and obesity. You will discover the important role health and wellness practitioners play in supporting individual, group and community health and wellness. You will also engage in a community assessment of health and wellness resources.

HSC 414 Budget and Finance in Health Care Organizations 3 credits

Prerequisite: none

This course guides students through an examination of financial principles and techniques used by managers in health care facilities. Budget preparation and management, and analysis in the context of the evolving health care environment are the focus of this course. This course is required for students enrolled in the Nursing Management Certificate Program, Bachelor of Science in Health Care Management, the Management emphasis of the Bachelor of Science in Health Sciences, and is used to fulfill nursing elective credit requirements for the Bachelor of Science in nursing program.

This course was cross-listed with NUR 414. Credit for only one of these courses will be applied toward graduation.

HSC 418 Human Resource Management in Health Care Organizations 3 credits

Prerequisite: none

This course explores the human resource function of the manager in a health care organization. It covers a wide range of topics including staffing, worker safety and security, general employment practices, organizational development and employee relations. Upon completion of the course, students will be able to implement/integrate evidence-based human resource strategies into the day-to-day management of their departments.

This course was cross-listed with NUR 418. Credit for only one of these courses will be applied toward graduation.

HSC 432 Introduction to the Health Care Delivery System 3 credits

Prerequisite: none

This course provides a comprehensive overview of the U.S. health care delivery system and the forces that influence it. Students will examine the continuum of health care delivery from prevention through individualized clinical health care, including the importance of interprofessional

collaboration. Students will explore historical influences on today s U.S. health care delivery system and will have the opportunity to investigate the roles of government, finance, regulators, and providers in the health and public health arenas. The inter-connectedness of the U.S. health care delivery system with global health care systems will be explored.

This course duplicates HSC 431/NUR 431. Credit for only one of these courses will be applied toward graduation.

HSC 440 Leadership and Management in Health Care Seminar   3 credits

Prerequisite: none

Using the teachings of contemporary leadership mentors, students will build an individualized professional leadership plan where they envision themselves as leaders within their professional career role. Skills for decision-making, motivating, negotiating and professionalism will be learned. Students will demonstrate foundational skills of oration, self-awareness, and use of an ethical lens, so important for health care leaders.

HSC 445 Introduction to Health Care Informatics   3 credits

Prerequisite: none

This multidisciplinary course introduces students to the role of information management in health care. Students will explore benefits, issues, risks and challenges related to the electronic health record and other information systems in the health care environment. Students will also explore the field of consumer informatics and its use in providing health related information to health consumers. The course will address the role of the health provider in working with computers and information management systems in health care.

HSC 450 Economics of Health Care   3 credits

Prerequisite: none

This course introduces you to the field of healthcare economics. During the course, you will learn the concepts and principles of microeconomics as they apply to healthcare. You will explore why and how healthcare differs from other markets. Topics to be covered include the cost of health care, funding of health care, and government regulation. In addition, there is a focus on behavioral economics and emerging trends in multiple health care settings.

HSC 464 Health Sciences Capstone   3 credits

Prerequisites: Students must have completed all other requirements of the health sciences component, completed the written English requirement, and be within 9 credits of completing the arts and sciences component.

This end-of-program capstone course of the Bachelor of Science in Health Sciences curriculum requires students to demonstrate mastery in previously learned knowledge, principles, and skills to analyze case-based problems common in the health field and propose evidence-based solutions. This is an exciting opportunity to challenge yourself in the role of an expert as you address a real-world situation. You will also have opportunities to interact with other class members, not only as students but as soon-to-be-graduating professional colleagues, as you discuss and compare your perspectives on health issues. The capstone will also provide you with a place to consider your next steps as a bachelor's-level graduate.

HSC 470 Healthcare Management Capstone   3 credits

Prerequisites: Students must have completed all other requirements of the professional and additional credit components degree including

the written English requirement, and be within 9 credits of completing the arts and sciences component.

This end-of-program capstone course of the BS in Health Care Management curriculum requires students to demonstrate previously learned knowledge, principles, and skills to analyze health science-based case problems. Using a variety of case analysis tools, students will analyze cases both as a member of a team and individually and will discuss case studies that examine the professional role in health care. This course provides students with an opportunity to demonstrate their ability to integrate and apply knowledge of the arts and sciences, business functions, and health care management principles and concepts.

HUM 236 Leadership in Film   3 credits

Prerequisite: none

Have you ever been in a tough spot at work and had to tell yourself, like Gene Kranz did during the Apollo missions, that "Failure is not an option"? Or maybe you're more of an Erin Brockovich-type who charms your way into getting what you want. If you're someone who loves to learn by example, watching films specifically targeted to illustrate leadership concepts is a great way to learn how to maximize employee loyalty, increase profits, and master leadership principles.

Students will be expected to observe, identify, and report on key leadership, management, and organizational styles portrayed in the selected films. Many of the films included in the course are classic, iconic, and/or award-winning.

No textbook required; only films to view and articles to read.

The content of the films, as well as the content of many of the discussions, will contain mature themes and subject matter.

HUM 253 Mythology   3 credits

Prerequisite: none

An adventure is calling! Will you answer? Which road will you choose to explore? In this course, you'll not only study mythology but actually experience it when you undertake your own "hero's journey." You might wonder, "Who am I going to meet on my journey? Will it be Harry Potter, Batman, or Katniss?" On your road of trials, maybe you will bump into a classical mythological figure like King Arthur or be shocked by the African trickster like Anansi. Along the way, too, you may be surprised by negative experiences or shocked by monstrous figures.

The only required text for this course is an eBook that is available through the Excelsior library.

HUM 300 Ethics   3 credits

Suggested prerequisites: none

Why doesn't Batman kill the Joker? Is Spider-Man right that with great power comes great responsibility? In this course, you can easily explore a variety of approaches to ethics by examining moral issues through superheroes and their world-shaking struggles.

The course uses superheroes to investigate enduring human questions and controversial issues to deepen your engagement with the ethical dimensions of our world. Your foundation includes traditional ethical theories such as relativism, utilitarianism, and virtue ethics and, also, the more current feminist, postmodern, and global ethical theories. Ethics influences all our relationships, shapes our decisions at work, and deeply infuses our culture. Superheroes can help us see how even the smallest decisions can have far-reaching consequences.

If you are a military student, this course may help you apply ethical concepts to civilian contexts.

Most of the required books and articles are accessible through the Excelsior library and in the course.

HUM 306 Creative Problem Solving   3 credits

Prerequisite: none

Ever wonder how Steve Jobs created such amazing products or Sarah Lewis used failure for creative success? Given the rapid changes in today's economy and workplace, creativity and innovation continue to be important skills that support career growth. Because employers continuously rate the ability to solve problems as an essential skill, this course is designed to introduce and strengthen a student's ability to move through logical problem-solving processes in order to creatively find solutions to problems that are personally or professionally relevant to them. Neuroscience research affirms that we all possess the same mental capacities as people with highly inventive minds, so students will study innovators and global thinkers who will show them the crucial techniques to increase their competency, sharpen their skills, and develop their innovative mindset.

Most reading and viewing materials for this course are cost-free and are easily accessed through the Excelsior library or within each module of the course.

HUM 307 Critical Thinking   3 credits

Prerequisite: none

One of the most pressing questions a student always has about any given course is, "How will this class help me in the real world?" A class on critical thinking is arguably the most useful and valuable course you can take, no matter what field of study you are pursuing. Not only will you learn how to effectively solve personal and professional problems and achieve goals, you will also deeply examine some of the most important issues in your life. Tackle real world situations, evaluate arguments from a range of perspectives, and skillfully articulate a position. By the end of the course, you will have mastered the understanding that it is not so much what you know, but how skillfully you think!

Throughout the course, there will be subject matter and material covered in the readings, viewings, or discussions that may appear to be controversial to some students. Please use your own discretion to gauge whether or not this course is right for you.

HUM 321 I Feel Your Pain: Illness and Empathy in the Arts   3 credits

Prerequisite: none

This course explores what happens when people become ill and how their experience of the care they receive from medical practitioners can affect and change their lives, for better or for worse. We look at current Western practices surrounding end-of-life care, the processing and acknowledgment of grief, and the tendency to deny our very mortality. We witness what people in stigmatized groups undergo when they seek medical treatment. And we confront what happens when a person, either ill or well, decides to end their life on their own terms. Throughout all of these explorations, we examine why empathy is crucial to both giving and receiving good care and how exposing ourselves to the arts can help foster empathy skills in those of us who live with, care for, and support the ill and dying.

This course was cross-listed with NUR 321. Credit for only one of these courses will be applied toward graduation.

IND 101 Cornerstone A: Foundations   3 credits

Prerequisite: none

The future: the only constant is change. The only certainty is uncertainty. So how do you prepare today for what might come tomorrow? In this introductory, interdisciplinary course unique to Excelsior University, you will learn through questions, not answers. You'll challenge your prior assumptions, open your mind, and consider society's future dilemmas, progress, and crises. You'll plan and question your own future—your educational path, career trajectories, personal interests, ambitions, and mindsets. And you'll build the foundational skills and flexibility of mind—research and writing, critical thinking, argumentative reasoning, metacognition, and self-regulation—to help you navigate the uncertainty and change of our future societies, workplaces, and selves.

This course must be completed with a grade of C or higher. Registration in this course is restricted to incoming students with fewer than 60 transfer credits.

This course duplicates IND 301 and CCS 120. Credit for only one of these courses will be applied toward graduation.

The Cornerstone cannot be completed in the same term as the Capstone course.

IND 203 Professional Ethics   3 credits

Prerequisite: none

In this interdisciplinary course, students will develop the analytical skills necessary to examine ethical issues in the workplace. Students explore conventional ethical theories and principles, develop ethical decision-making, and resolve common dilemmas. Students discuss the multiple challenges faced by professionals and identify ethical practices or codes that apply to each of their own professions.

The only required text for this course is an eBook that is available through the Excelsior library.

IND 301 Cornerstone B: Pathways   3 credits

Prerequisite: none

The future: the only constant is change. The only certainty is uncertainty. So how do you prepare today for what might come tomorrow? In this upper-level, interdisciplinary course unique to Excelsior University, you will learn through questions, not answers. You'll challenge your prior assumptions, open your mind, and consider society's future dilemmas, progress, and crises. You'll plan and question your own future—your educational path, career trajectories, personal interests, ambitions, and mindsets. And you'll hone the skills and flexibility of mind—research and writing, critical thinking, argumentative reasoning, metacognition, and self-regulation—to help you navigate the uncertainty and change of our future societies, workplaces, and selves.

This course must be completed with a grade of C or higher. Registration in this course is restricted to incoming students with 60 or more transfer credits. This course duplicates IND 101 and CCS 120. Credit for only one of these courses will be applied toward graduation.

The Cornerstone cannot be completed in the same term as the Capstone course.

INL 102 Information Literacy   1 credit

Prerequisite: none

Information literacy is the ability to find, evaluate, interpret, and use information legally, ethically, and effectively. This course provides a broad overview of information literacy concepts, including cyber literacy, the knowledge-creation process, finding and evaluating sources, critical reading, and writing with sources. It also addresses academic honesty, information ethics, and copyright law.

This five-module class is self-paced; however, students must complete all course materials by the end of the 8-week term in which they are registered. Students must complete all required activities in each module, and score an 80% or higher on the module quiz, before moving on to the next. Required activities include readings, module notes, "Try It Yourself" activities, module quizzes, and module surveys. This is a pass/fail course. Students must score an 80% or higher on each module quiz to pass the class. Students should plan on spending around 9 hours of work per module, or 45 hours for the class as a whole.

INT 401 Professional Experience   3 credits

Prerequisites: none; however, it is recommended that this course be taken toward the end of the student's program of study.

This course explores characteristics and benefits of Problem Based Learning using a provided problem in the student's respective field of study. Students will work toward resolving an open-ended problem rather than one with a defined solution. Application of previous coursework in addition to critical thinking and analysis will be used in solving the problem, and you will receive guidance from your instructor throughout the course. The course offers opportunities to apply the Problem-Based Learning concepts with action planning exercises. The assessment module demonstrates strategies for assessing students' life readiness skills throughout an open-ended project. Students will also

work on self-branding throughout the course in order to better assess their strengths and areas of interest in applying previous experience and to aid in career planning.

IT 200 Hardware and Software Essentials 3 credits

Prerequisite: none

This course offers a series of mini-lectures, summary notes, simulations, and practice quizzes to help you develop fundamental computer skills. Topics will cover computer hardware (including mobile devices), operating systems, basic networking, and basic security. In addition, you will engage in discussions on computer roles and practices of a PC technician and information technology issues. After the completion of this course, you will be prepared for an entry-level PC technician career.

This course aligns with the exam objectives of two industry certification programs: CompTIA A+ and TestOut PC Pro. This course aims to assist you in preparing for the two certification exams.

IT 210 Object-Oriented Programming 3 credits

Prerequisite: none

This course will cover problem-solving and algorithm development using the Java programming language. Fundamentals of good programming style, process design, coding, debugging and documentation will be covered. Students will be introduced to object-oriented programming features including encapsulation, inheritance, and polymorphism.

This course duplicates IT 240 Introduction to Programming. Students cannot receive credit for both courses.

IT 211 Fundamentals of Programming 3 credits

Prerequisite: none

This course will introduce students to basic concepts in programming through the Python language. The concepts to be covered include, but will not be limited to: variables, Boolean logic, loops, collecting user input, displaying output

and/or saving it to an external file, lists, strings, objects, inheritance, recursion, and Graphic User Interface (GUI) programming. Students will have multiple opportunities to practice the debugging process throughout the course. By the end of this course, students will be able to apply these concepts to create executable programs to meet many real-world needs.

IT 221 Introduction to Computers 3 credits

Prerequisite: none

This course provides students with a fundamental knowledge of the computer system and its components, including computer hardware and architecture, application software, operating systems, networks, and the Internet. Advanced topics such as information privacy and security, database and data warehouse, data mining, and legal, ethical, and privacy issues in the information technology field will also be introduced in this course. Additionally, students will participate in learning activities to develop the needed skills to work with Microsoft Office suite.

IT 240 Introduction to Programming 3 credits

Prerequisite: none

This course is an introduction to the C++ programming language through a study of the concepts of program specification and design, algorithm development, and coding and testing using a modern software development environment. The student will grasp the basics of both procedural and non-procedural (Object Oriented) Programming. Topics covered include fundamentals of algorithms, problem solving, programming concepts, classes and methods, control structures, arrays, and strings. This course will serve not only as an introduction to programming in C++ but also as a preparation for a more advanced C++ course involving data structures and algorithmic development.

This course duplicates IT 210 Object Oriented Programming. Students cannot receive credit for both courses.

IT 250 Business Data Communications 3 credits

Prerequisite: none

This course provides an overview and application of the concepts and practices of data communications and networking within a business environment. Topics of this course include data communications models, protocols, standards, and services; networking technologies and communication media; network topology, design and architecture; network management; wireless technologies; network security; and cryptography. Students will practice their knowledge and skills through hands-on labs and assignments, which are based on real-world business case scenarios.

IT 250 begins to prepare the student for the CompTIA Network+ certification exam.

IT 313 Intermediate Programming 3 credits

Suggested prerequisite: IT 211 Fundamentals of Programming

This is an intermediate programming course that covers problem solving and application development using the popular programming language Java. Students will develop programs that focus on principles of software design and program clarity to solve real-world scenarios. This will prepare students to code and debug programs and applications written in the Java language, a common expectation in Information Technology.

IT 321 Computer Systems Architecture 3 credits

Prerequisites: MAT 205 Discrete Structures; IT 210 Object Oriented Programming or related course work.

This course is an introduction to the basic components and structure of the computer. The course covers in detail basic Boolean algebra, fundamentals of computer design, instruction set principles, RISC/CISC processors, instruction and processor level parallelism, memory hierarchy, pipelining, assembly language, and parallel computer architectures. The course will also address the architecture and microprogramming of the processor.

IT 361 Computer Organization and Operating Systems 3 credits

Prerequisites: MAT 205 Discrete Structures

This course will cover the architecture of a modern computer system and the organization of operating systems. Course topics include an overview of computer architecture, central processing unit architecture and instructions, arithmetic and logical operations, the structure of modern operating systems, operating system functions, concurrency and synchronization, process control, interprocess communication, memory organization and management, file systems, interfaces to network structures, protection and security, and virtualization concepts.

IT 370 Database Management Systems 3 credits

Prerequisites: IT 211 Fundamentals of Programming, IT 313 Intermediate Programming, or any related programming course.

This course examines the technology and impact of the design of database systems on the organization. It covers the application, design, and implementation of database systems. Topics include an introduction to basic database concepts, database design principles including Entity-Relationship (E-R) diagrams and database normalization, SQL queries, transaction management, distributed databases, data warehousing, and database administration. The course focuses on the relational model.

IT 371 Web Design and Development 3 credits

Prerequisites: IT 210 Object-Oriented Programming, IT 240 Introduction to Programming, or any related programming course.

The course will cover the fundamental principles of web programming and formatting. This will include learning the difference between client side and server side scripting technologies, effective use of web authoring tools and code development. The course will also cover web design standards and the need for integrating

human-computer interaction principles in web design. The final project in the course will enable learners to apply current development and production practices to design web pages.

IT 375 Human Computer Interactive Design — 3 credits

Prerequisite: IT 371 Web Design and Development

The course starts with fundamental concepts related to human behavior through the lens of HCI (human-computer interaction), human-centered design, user experience (UX) and user interface (UI). These concepts are applied experientially throughout the 8 modules of the course. Research design, persona development, information architecture, low and high fidelity prototyping using wireframing are all used to develop a minimally viable product (MVP) using HTML and CSS. The course long project is the culmination of material covered throughout the course and can be used as a portfolio item to showcase classwork for an interview or other employment situation.

IT 380 Overview of Computer Security — 3 credits

Prerequisite: IT 250 Business Data Communications

This course will focus on providing you with insights, guidance, and best practices on the principles of information security. Students develop an understanding of the technologies and methods utilized to defend systems and networks. They learn to describe, evaluate, and operate a defensive network architecture employing multiple layers of protection, using technology appropriate for secure mission accomplishment. Students will also examine the various types of vulnerabilities (design and implementation weaknesses), their underlying causes, their identifying characteristics, the ways in which they are exploited, and potential mitigation strategies.

IT 380 prepares the student for the CompTIA Security+ certification exam.

IT 390 Project Management — 3 credits

Prerequisite: ENG 101 College Composition

This class is designed to train students in the principles of project management. Students study the skills required of a project manager as well as learn the methodologies, tools and processes used to succeed in this field. Interactive and self-study methods are used to enhance the students' skills in planning and managing project scope, schedules, costs, quality, risks, communications, purchases, human resources and stakeholders. This course is writing intensive and has weekly writing assignments used to improve students' ability to write professionally.

IT 402 Network Security — 3 credits

Prerequisites: IT 250 Business Data Communications, IT 380 Overview of Computer Security or related course work.

This course covers the foundations of network security and provides an in-depth review of commonly used security mechanisms and techniques, security threats and network-based attacks, applications of cryptography, authentication, access control, intrusion detection and response, security protocols (IPsec, SSL, Kerberos), denial of service, viruses and worms, software vulnerabilities, web security, wireless security, and privacy. Additionally the course covers important network security tools, applications, and methods for preventing breaches.

IT 404 Web Security — 3 credits

Prerequisite: IT 380 Overview of Computer Security, or related course work.

This course provides an overview of both Web application security concepts and software security concepts in general, including the current top 10 most critical Web application vulnerabilities identified by the Open Web Application Security Project (OWASP). Additionally the course deals with principles of securing common areas of functionality of Web applications and presents concepts regarding secure development and deployment methodologies, including Microsoft's Security Development Lifecycle (SDL), OWASP's Comprehensive Lightweight Application Security Process (CLASP), the Software Assurance Maturity Model (SAMM), and Building Security In Maturity Model (BSIMM).

IT 406 Computer Forensics 3 credits

Prerequisite: IT 380 Overview of Computer Security

This course presents a detailed and comprehensive methodological approach to conducting cyber investigations, responding to incident scenes, and performing forensic examinations of digital evidence.

In the process, students will experience the complete digital forensics lifecycle from identification, preservation, and collection to examination and analysis—including the development of relevant documentation associated with the reporting of forensic results—as well as the presentation of their findings.

IT 408 Information Assurance Management 3 credits

Prerequisite: none

This course focuses on the protection of information systems against unauthorized access to or modification of information whether in storage, processing or transit, and against the denial of service to authorized users, including those measures necessary to detect, document, and counter such threats. Emphasizes importance of sensitivity to threats and vulnerabilities of information systems and the recognition of the need to protect data.

IT 410 Fundamentals of Cryptography 3 credits

Prerequisite: MAT 205 Discrete Structures, or comparable course in discrete mathematics.

In this course students will learn the history of cryptography and its role in information assurance. Students will examine the inner workings of various cryptographic models and techniques and will be able to identify the appropriate uses of symmetric and asymmetric encryption. Students will learn how to assign measures of strength based on cryptographic algorithms and keys. This course will focus on applied cryptography, and students will examine various situations and identify the level of cryptographic strength that is needed as well as the implementation factors related to its suitability for use. Lastly, students will understand the common pitfalls and weaknesses associated with the implementation of

cryptography techniques, and will understand the challenges and limitations of various key management systems.

IT 418 Software Systems Analysis And Design 3 credits

Prerequisite: A programming language course.

The course will focus on the concepts and techniques of modern systems analysis and design. This includes traditional approaches to the system development life cycle and modeling of system requirements and design. The course will describe the role of the analyst in investigating current systems, defining IT requirements, working with technical and non-technical staff, and making recommendations. Some course topics include the system development environment, types of information systems, rapid application development, role of the systems analyst, initiating and planning a systems development project, determining systems requirements, process modeling, logic modeling, project documentation, understanding the elements of systems design, designing the user interface, designing system interfaces, and controls and security considerations.

IT 422 Advanced Networking 3 credits

Prerequisite: IT 250 Business Data Communications, or related course work.

IT 422 introduces students to Switching and Routing as it pertains to the LAN. Students will learn about technologies such as VLANs, EtherChannels, DHCP, device configuration, and troubleshooting. Students will also get an introductory look at network security from the perspective of the LAN.

IT 424 Network Operating Systems 3 credits

Prerequisite: A working knowledge of at least one operating system with Internet connectivity, and basic computer networking including LANs, WANs and TCP/IP.

In this course, students will identify the main functions of workstation and network operating systems and be able to distinguish

between the two. The basic functions of common network operating systems including Windows, Linux and MacOS will be examined and compared. Common examples of network utility software and Internet software, software licensing agreements, and network security/backup/recovery will be explored.

IT 425 Network Management   3 credits

Prerequisite: IT 250 Business Data Communications, or equivalent courses

IT 425 extends the students' working knowledge to include the WAN. We will cover technologies such as the OSPF Routing protocol, Access Control Lists, NAT/PAT, and other network management protocols. We will introduce the concept of virtualization on the network and the end device. Network automation is a popular topic that is gaining ground in modern networks. This course will introduce these concepts.

IT 425 prepares the student for the Cisco Certified Network Association Exam.

IT 426 Wireless Technology   3 credits

Prerequisite: IT 250 Business Data Communications, or related course work.

This course describes the infrastructures, components and protocols of a wide range of wireless technologies. The course commences with a brief review of networking fundamentals including software and hardware used for interconnection of traditional wired networks. Examines existing wireless technologies such as global positioning satellite (GPS), cellular digital packet data (CDPD), general packet radio service (GPRS), infra-red (IR), the operation and protocols for simplex tone and data paging systems, and local multi-point communication systems (LMCS). Addresses additional technologies such as Bluetooth, digital audio broadcast (DAB), and IMT-2000.

IT 428 Telecommunications Management

Prerequisite: A background in Data Communications, and Computer Networking, or equivalent coursework/experience.

This course focuses on the management of diverse network systems involving a set of layered responsibilities, which ensure that network communications channels are continuously available and perform optimally from source to destination. Topics include differentiating between technical, financial and operational responsibilities, network capacity planning and traffic analysis techniques, measurement of network reliability and availability, basic hardware and software network diagnostic tools, network security issues, and network help desk operations.

IT 430 Network System Design and Management   3 credits

Prerequisite: IT 250 Business Data Communications, or related course work.

This course covers network design and management principles that network analysts, architects, engineers, and administrators must consider when planning, designing, implementing, and maintaining their network. Course topics include network management functions, network and system architectures, data and network communications technologies and protocols, server architectures and network operating systems, network security, and network and system administration. Additional topics covered that impact network design and management include network management tools and applications, wireless network architectures, interoperability, cloud computing, and virtualization.

IT 460 System Administration   3 credits

Prerequisite: IT 361 Computer Organization and Operating Systems, or similar course work.

This course provides learners with the knowledge and hands-on skills necessary to administer systems and its resources. Topics covered include directory services, user account management, file and print services, load balancing, security and user/client administration. Students will setup and manage a fully functioning computer network of systems. Furthermore, through hands-on (labs) assignments,

students deal with challenges designed to help them install, configure and manage servers.

IT 460 prepares the student for the CompTIA Linux+ certification exam.

IT 495 Integrated Technology Assessment BIX   3 credits

Prerequisite: Enrollment in this course requires that you have completed all the other courses in this entire degree program, including the concentration courses
Students in the course will complete an information technology group project that demonstrates information technology system integration as well as the ability to fulfill all outcomes of the Information Technology degree." Also replace the last paragraph with this: "Students will also demonstrate their knowledge of information technology fundamentals and practices including programming, information management, system administration and maintenance, operating systems and computer architecture, data communications and networking, human-computer interaction, and web systems and technologies.

You will also be tested on your knowledge of information technology fundamentals and practices spanning programming, information management, system administration and maintenance, operating systems and computer architecture, data communications and networking, human-computer interaction, and web systems and technologies—to ensure that you can meet the needs of industry as you venture forth in your career.

LA 298 Associate Degree Capstone   3 credits

Prerequisites: Completion of Written English, Ethics, and Information Literacy requirements. Students must be within 12 credits of degree completion and obtain advisor approval.
The associate degree capstone is the culminating experience for students in the Associate Degree in Liberal Arts program. In the course, students demonstrate and reflect on the knowledge and

skills they have acquired in the degree program and in other educational experiences up to this point. Students demonstrate mastery of the five Associate Degree in Liberal Arts learning outcomes: written and oral communication, cultural and global diversity, problem solving, ethics, and professional development. Students will demonstrate these outcomes through individual and group assignments, multi-modal presentations, and a final research paper.

This is an intense 8-week course with significant research and writing expectations. It is strongly recommended that students have prior experience with online course work, and particularly Excelsior University courses, before attempting this course. This course requires the completion of the listed prerequisites and the permission of the student's advisor.

LA 498 Liberal Arts Capstone   3 credits

Prerequisites: Completion of Written English, Ethics, and Information Literacy. Students must be within 15 credits of degree completion and obtain advisor approval.
"Education is the most powerful weapon which you can use to change the world," argued Nelson Mandela. So how are you going to change the world? In this culminating course for students in the Bachelor's in Liberal Arts degree program, you will think critically about our current and future world. To demonstrate your achievement of the program outcomes, you will complete an independent research paper, group project, and reflective journal. Together, we will apply the skills and knowledge we have built on our educational journeys to build a better world.

LA 498HIS History Capstone   3 credits

Prerequisites: INL, WER, Ethics Requirement, and most of the history courses in the major. Students must be within 15 credits of degree completion and obtain advisor approval.
This course is a culminating experience for students in history. As a capstone, this course is designed to bring together your cumulative

knowledge and skills from your history program. You will question and consider: what are the fundamental skills of the historical discipline and how can they be applied to better understand the past, present, and your future goals? How does a historian think, gather evidence, interpret and contextualize the past, and communicate to diverse audiences? You will also examine historical methodology and the concept of historiography through a research project.

LA 498NS Natural Science Capstone   3 credits

Prerequisites: Completion of INL, WER, the SLA Ethics course requirement and at least 12 upper level credits in the Natural Sciences. Students must be within 15 credits of degree completion.

This course is the culminating experience for students completing a major in Natural Sciences. A senior level course designed for advanced students and working professionals who are seeking to tie it all together. The course stretches across the natural science fields to apply multiple theories and research approaches to current events from the perspective of a variety of disciplines, including but not limited to Geology, Chemistry, Physics and Biology. Students will use their critical thinking skills along with oral and written communication skills while reviewing and analyzing ethical questions and the concepts of diversity across the natural science disciplines. Through a mixture of discussions, presentations and written analysis, students apply their previous learning in new ways both analyzing and synthesizing new perspectives on their learning. This a reading and writing intense course that should serve as the culmination of the students' work at the Bachelor's degree level.

This is an intense eight-week course requiring significant research and writing from the student.

LA 498PSY Psychology Capstone

Prerequisites: Completion of Written English, Information Literacy, and Ethics requirements, 12 upper level credits in psychology (including PSY 305 Research Methods and PSY 440 History and Systems), students must be within 15 credits of degree completion.

This is a competency-based, senior level course designed for advanced students and working professionals seeking to complete their bachelor's degree in psychology. Course content focuses on demonstrating the competencies associated with the psychology degree program student learning outcomes. Through a mixture of discussions, reflective writing, and multimedia presentations, students apply knowledge, skills, and abilities to showcase their learning and interests. This course requires students to research and connect psychological theory to real-world problems, as students think deeply about their academic and career goals.

LA 498SS Social Science Capstone   3 credits

Prerequisites: Completion of INL, WER, Ethics Requirement, and 12 upper level credits in the Social Sciences. Students must be within 15 credits of degree completion and obtain advisor approval.

This course is the culminating experience for students completing a major in Social Sciences. This is a senior-level course designed for advanced students and working professionals who are seeking to make important connections among social science discipline areas. The course applies social science theory and best practices of evidence analysis to current events and reviews the theoretical foundations of the economics, political science and sociology disciplines. Students will evaluate the usefulness of these disciplines in analyzing social problems, and apply them to specific social policy dilemmas. Through a mixture of discussions and written analyses, students

will review major theories, organize, and relate theoretical principles to evidence about real-world problems and gain experience analyzing decision making challenges that attend important social policy subjects.

MAT 101 Mathematics for Everyday Life 3 credits

Prerequisite: none

The goal of this course is to help students develop mathematical reasoning and problem solving skills that will serve them well in their lives both in and out of school. Topics will include the important real-world applications of measurement units, managing money, statistics in the media, the mathematics of voting, and mathematics in the arts and nature. Providing correct solutions to routine problems is not the goal; more important is the ability to communicate effectively about mathematical reasoning and to solve realistic, practical problems both collaboratively with other students and individually.

MAT 101 is a survey course introducing the student to a variety of mathematical topics. It does not prepare a student for future courses that require a knowledge of algebra (e.g. Precalculus or Statistics).

MAT 105 Essential Algebra and Statistics 3 credits

Prerequisite: none

This course gives an introduction to algebraic concepts, probability, and statistics, with an emphasis on ways these concepts apply in everyday life. Each course module will contain a review of necessary algebraic concepts and examples of their application to probability and statistics. Mastery of these concepts will prepare you to use and understand statistical concepts as they appear in everyday life and many career fields, and will lay the foundation for more advanced statistics courses.

MAT 105 is a preparatory course and does not satisfy the statistics core requirement for any degree program at Excelsior University.

MAT 114 Intermediate Algebra 3 credits

Suggested Prerequisite: Knowledge of Elementary Algebra.

This course covers an intermediate level of algebra in order to prepare students for subsequent courses in mathematics. Major topics include real numbers and algebraic expressions, equations and inequalities, functions and graphs, systems of equations and inequalities, polynomial expressions and functions, rational and radical expressions, and quadratic equations and functions.

MAT 116 Precalculus Algebra 3 credits

Suggested prerequisites: MAT 114 Intermediate Algebra, or equivalent.

Precalculus Algebra is designed to serve as a preparatory course for science, technology, and other majors who will go on to take Calculus. Major topics in this course include Functions and Graphs; Polynomial and Rational Functions; Modeling; Systems of Equations and Inequalities; Exponential and Logarithmic Functions; Sequences and Series.

This course replaces MAT 117 and is cross-listed with Excelsior University Examination MATx116. Credit for only one of these courses or exams will be applied toward graduation.

MAT 118 Trigonometry 3 credits

Prerequisite: MAT 116 PreCalculus Algebra, or equivalent, or taken concurrently (with permission).

Trigonometry is designed to serve as a preparatory course for students who will go on to take Calculus or Applied Technical courses. This course emphasizes concepts fundamental to the study of calculus including applications relevant to engineering and technology. Major topics include Trigonometric Functions, Inverse Functions and their Graphs; Right and Oblique Triangle Trigonometry; Polar Coordinates; Vectors; Applications of Trigonometry.

MAT 201 Statistics   3 credits

Suggested Prerequisites: MAT 114 Intermediate Algebra, or MAT 105 Essential Algebra and Statistics.

This course develops the statistical skills of collecting, organizing, summarizing, and analyzing information to draw conclusions or answer questions. Major topics include descriptive statistics, frequency distributions, probability, binomial and normal distributions, statistical inference, linear regression, and correlation.

MAT 201 duplicates BUS 231 Business Data Literacy, BUS 233 Business Statistics, and MAT 215 Statistics for Health Care Professionals. Credit in only one of these courses/exams will be applied toward graduation.

MAT 205 Discrete Structures   3 Credits

Prerequisites: MAT 220 Calculus I, MAT 201 Statistics or BUS 231 Business Data Literacy

This course provides the mathematical foundations for information technology and other technology fields. Topics covered in this course include logic, relations, functions, recursion, induction, set theory, patterns of inference, elementary combinatorics, algorithm complexity, and graph theory. Applications of discrete structures such as social network analysis and/or language modeling are also introduced and discussed in this course.

MAT 215 Statistics for Health Care Professionals   3 credits

Suggested Prerequisite: MAT 114 Intermediate Algebra, or MAT 105 Essential Algebra and Statistics.

This course is designed to provide students with the statistical tools that are appropriate for health care professionals in evidence-based practice. Topics include descriptive statistics for qualitative and quantitative data (both univariate and bivariate), basic probability and normal distributions, and statistical inference: estimation, hypothesis tests for means and proportions, comparison of two or more means, and chi-square tests.

MAT 215 duplicates MAT 201 Statistics, BUS 231 Business Data Literacy, and BUS 233 Business Statistics. Credit in only one of these courses/exams will be applied toward graduation.

MAT 220 Calculus I   4 credits

Prerequisites: MAT 116 Precalculus Algebra, MAT 118 Trigonometry or equivalent.

This course provides students with an introduction to the basic concepts of the differential and integral calculus. Topics covered include functions; limits and continuity; differentiation rules; application to rates, approximations, and extremum problems; L'Hôspital's rule; approximation of definite integrals; the Fundamental Theorem of Calculus; definite and indefinite integration; applications of integration including area and arc length; and integration by substitution.

MAT 221 Calculus II   4 credits

Prerequisites: MAT 220 Calculus I or equivalent

This course is a continuation of MAT 220, Calculus I. Topics include techniques of integration, sequences, series, conics, parametric equations, vectors in space, and a brief introduction to ordinary differential equations.

MET 220 Statics   3 Credits

Prerequisites: MET 210 Introduction to Engineering Analysis

This course introduces engineering mechanics in static systems. You will apply basic principles of physics to the analysis of systems experiencing some combination of forces and torques, with an eye toward engineering applications. Statics deals with two and three-dimensional systems of particles and rigid bodies in static equilibrium. In a general sense, each principle is applied first to a particle, then to a rigid body subjected to a coplanar system of forces, and finally, to three-dimensional force systems acting on a rigid body. Special attention devoted to forces in structures such as truss, frames, and machines. After building a fundamental understanding of these topics, we will explore analysis of internal forces developed in structural members. Vector algebra will be used throughout.

The subject is called "statics" because it is concerned with particles and rigid bodies that are in equilibrium; these will usually be stationary (i.e. static).

MIL 230 United States Military History 3 credits

Prerequisite: none

To better understand the current and future challenges of new and dangerous warfare tactics, this course will describe and analyze military strategy as well as the causes of war throughout the evolution of the United States Military. Additionally, it will examine how the military has confronted social changes and diversity and analyze the ethical challenges of a new operational environment.

This course replaces MIL 130. Credit for only one of these courses will be applied toward graduation.

MIL 301 Great Military Leaders 3 credits

Prerequisite: none

Great Military Leaders presents an overview of military leadership and great military leaders throughout history who have left a mark of excellence in world history. The course examines the qualities of military leaders and analyzes specific leadership traits that contributed to military leaders' excellence in leadership. Through this analysis, the students will be able to compare and contrast leadership throughout history and isolate those leadership traits and qualities that make a great leader and then apply those traits and qualities to new situations.

MIL 312 Military Leadership: Skills for the 21st Century 3 credits

Prerequisite: none

This course introduces undergraduate students to contemporary military leadership through a focus on decision-making, ethical leadership, an examination of the elements of national power in the 21st Century, and analysis of challenges and opportunities in a dynamic global context. The course will expose students to the theories and application of leadership in the military. Throughout this course, students will gain an understanding of Military Leadership, Military History, and the global challenges of the military today through research and analytical writing.

MIL 498 Military Studies Capstone 3 credits

Prerequisites: The capstone course is restricted to students majoring in Military Leadership with senior standing. Students must have completed all other required courses for the major, completed both the information literacy and written English requirements. Students must also be within 15 credits of degree completion and obtain advisor approval to register for this course.

The Military Leadership Capstone exposes students to relevant theories of military leadership, their applications to military operations, and leaders throughout history. By examining military leadership within the context of historical and political settings, students will develop a comprehensive knowledge of traits and characteristics that will contribute to their own leadership abilities. This course addresses all aspects of military leadership, how it is applied, what worked and what failed and why, and explores the diplomatic, economic, political, and social aspects of conflict and war. Students will improve their ability to think critically, and learn to become agile and adaptive leaders and decision makers.

MUS 210 History of Rock and Roll 3 credits

Prerequisite: none

This course provides an introduction to the genre of rock and roll, its form and derivations, and rock and roll artists and bands spanning the years 1955 to 1970. Through reading and numerous listening examples, this course will look at the state of American popular music after World War II, the inception of rock and roll in the 1950s, the growth of youth culture in America, and the growing popularity of rock and roll through radio, film, and television.

NS 110 Science in Today's World 3 credits

Prerequisite: none

The purpose of this course is to give the student an overview of current and emerging trends in science and technology so that s/he will be able to make informed decisions and be an informed consumer. The course will introduce the scientific method and terminology used in reporting scientific results. A survey of current topical

science issues will be covered as examples. This course will also prepare the student to read accounts about scientific, technological, and medical advances in the press and assess the scientific conclusions presented.

NS 115 Introduction to Astronomy — 3 credits
Prerequisite: none

Welcome aboard the USS Kepler! During the next eight weeks, we will be exploring this big, beautiful universe of ours! The itinerary of our voyage allows, after a brief look at a few key physical principles and the history of their development, a look at the cosmos on an increasingly large scale. Our journey will begin with a detailed study of our solar system as well as a discussion of planetary systems around other stars that are being discovered almost daily. From there, we'll examine the nature of stars how they are born, live, and die, and how they constitute the fundamental building blocks of one of the most important cosmic structures, the galaxy. This study of galaxy formation and evolution will lead us into a brief exploration of the current research in cosmology, including the as-of-yet undiscovered nature of dark energy and dark matter. We've reserved you a seat aboard our shuttle, so let's prepare to launch!

This course replaces PHYS 110. Credit for only one of these courses will be applied toward graduation.

NS 120 Weather and Climate — 3 credits
Prerequisite: none

This is a course designed to provide the student with a basic understanding of the dynamic, thermodynamic, and kinematic principles that control atmospheric processes and form daily and climatic weather events. The significance of atmospheric composition, global circulation, and energy and moisture transfer will be covered, as well as familiarity with standard weather observations. These foundations will allow the student to engage in interactive discussions, using critical thinking, to describe basic meteorological processes and comprehend safety needs during severe weather. A view into the intricacies of weather forecasting, descriptions of regional

climates, and potential impacts of global climate change will be included.

NS 130 Are We Alone? Life in the Universe — 3 credits
Prerequisite: The student should be comfortable performing simple algebraic calculations using calculators or spreadsheet software.

This course uses the Drake Equation to answer the question Are We Alone In the Universe. The Drake Equation is not only a model for estimating the number of alien civilizations in our galaxy but also a means of touring the many different fields of science upon which this question touches. By the end of this course, you will arrive at a personal estimate of how many alien civilizations exist in our galaxy. You will also conceptualize what one of these alien species might be like and how they might interact with their environment (including how they might seek to communicate with us). The Galaxy awaits. Let's get started!

NUC 210 Health Physics and Radiation Protection — 3 credits
Prerequisites: PHYS 201, PHYS 203, PHYS 204, MAT 220 and MAT 221, CHE 101 with Lab or equivalent; Basic Computer Literacy, Computer Applications.

This course provides a fundamental grounding in the theory and principles of radiation protection relevant to nuclear power plant operations. The course covers the following broad topics: radioactivity and radiation interactions, biological effects of ionizing radiation, radiological approximations and calculations, radiation sources and detectors, radiation protection standards and 10 CFR 20, external and internal dosimetry, workplace and environmental monitoring, radiation protection principles, and handling radiological emergencies.

NUC 211 Radiation Measurement Lab — 1 credit
Prerequisite: NUC 210 Health Physics and Radiation Protection, or equivalent; NUC 210 may be taken concurrently with this course.

This course provides experience in the use of instruments for the detection and analysis of radiation. Instruments included in the

course are gas-filled detectors, scintillation counters, semiconductor detectors, radiation spectroscopy, neutron detectors, dosimetry, external dosimetry, and counting statistics.

NUC 240 Atomic and Nuclear Physics 4 credits

Prerequisites: NUC 210 Health Physics and Radiation Protection or equivalent
Required Knowledge: To comprehend the course materials, the students need to have the following knowledge: Algebra, trigonometry, and basics of differential calculus, integral calculus, and differential equations; college level Physics I, Physics II, Physics I or Physics II Lab, and Chemistry with Lab; health physics radiation protection, and radiation measurements; basic computer literacy for technical problem solving, including installing software, naming files, transferring files, and navigating the internet; computer applications, including use of Microsoft Office (Word, Excel, PowerPoint, and Project).
This course will provide a foundational introduction to Atomic and Nuclear physics, including key components of modern and quantum physics. Successful completion of this course will help you complete later coursework in this curriculum.

This course covers the structure of the atom and of the nucleus, atomic and nuclear energy states, the sources of radioactivity, the detection and measurement of the various types of radiation, nuclear reactions and neutron interactions, nuclear fission and fusion and the application of these concepts. These topics are discussed with focus on practical applications. This course will enhance learning in later topics in reactor physics, radiation safety, electronics, materials science, and chemistry.

NUC 245 Thermodynamics 3 credits

Prerequisites: PHYS 201 Physics I, PHYS 202 Physics I Laboratory, and MAT 221 Calculus II or equivalent.
This course provides students with an understanding of thermodynamic and fluid flow principles, and how thermodynamics principles

apply to systems, including the importance of understanding thermodynamic principles for nuclear power plant operations. Topics include thermodynamic properties, measurements, systems, and processes, phase change, property diagrams, laws of thermodynamics, compression processes, heat transfer and heat exchange, boiling heat transfer, heat generation, and decay heat, continuity equation, types of flow, Bernoulli equation, and pumps.

This course contains laboratory work based on a Generic Pressurized Water Reactor (PWR) simulator including introduction to PWR simulator, circulating water system, steam generator heat balance, main and reheat system, overall plant efficiency, flux distribution, and decay heat production, and load rejection. This web-based simulator is based on a real operating unit that has been completely tested and verified to perform plant maneuvers in a realistic and accurate manner.

This course utilizes specific technologies that may not be accessible to individuals with disabilities. If you have any questions or difficulties, please contact your instructor.

This course contains laboratory work based on a Generic Pressurized Water Reactor (PWR) simulator.

NUC 246 Thermal Measurement Laboratory

Prerequisites: PHYS 201 Physics I, PHYS 202 PHYS Physics II, MAT 221 Calculus II.
In order to comprehend the course materials, students need to have the following knowledge: General Physics and Fundamentals of Differential and Integral Calculus.
This laboratory course provides students with an understanding of thermodynamic principles and how thermodynamics principles apply to systems, including the importance of understanding thermodynamic principles for nuclear power plant operations. This course contains laboratory work based on a Generic Pressurized Water Reactor (PWR) simulator including Introduction to PWR Simulator, Circulating Water System, Steam Generator Heat Balance, Main and

Reheat System, Overall Plant Efficiency, Flux Distribution, Decay Heat Production, and Load Rejection.

NUC 250 Introduction to Heat Transfer and Fluid Mechanics — 3 credits

Prerequisites: PHYS 201 Physics I, PHYS 202 Physics I Laboratory, and MAT 116 Precalculus Algebra.

This course provides a fundamental grounding in the principles of heat, heat transfer, and fluid mechanics, as they apply to power plant operation. While designed to meet the requirements of the Nuclear Uniform Curriculum Program, specifically Section 1.1.5 *Heat Transfer and Fluid Flow of ACAD 08-006 for Non-Licensed Nuclear Operators*, this course has broad applicability for anyone interested in power plant technology, regardless of the heat source used. The course covers the following broad topics: Temperature, its measurement, and pressure-temperature relationships in power plant steam and water systems; heat, its various forms, mechanisms and mechanics of heat transfer, and the related power plant components used to transfer heat; and fluid mechanics as they relate to heat and heat transport in power plant steam systems and power plant water systems.

NUC 255 Electrical Theory — 3 credits

Prerequisites: PHYS 203 Physics II, PHYS 204 Physics II Laboratory, MAT 221 Calculus II, and IT 221 Introduction to Computers.

This is a basic course covering the theory of electrical circuits and electronic control components used in nuclear and commercial power plants: AC and DC current, voltage, capacitance, inductance, energy, power, Kirchhoff's laws, linear voltage-current characteristics, digital logic gates, voltage regulation and amplification using diodes, transistors, and operational amplifiers, transformers, DC and AC motor and generator operations, and battery construction, theory, and operation. This course utilizes an online electronic circuit simulator called Falstad. This circuit simulator is a wonderful way to learn about circuits, test innovative designs, or troubleshoot a design.

NUC 260 Power Plant Components — 3 credits

Prerequisites: NUC 245 Thermodynamics and NUC 250 Introduction to Heat Transfer and Fluid Mechanics.

In this course, you will learn the theory, design of components, and application of mechanical and electrical components such as (but not limited to): heat exchangers, valves and actuators, pumps, turbines, diesel engines, electrical motors, transformers, instrument controls, and air compressors. These topics are discussed focusing on practical applications in power plants.

To assist you in your learning experience, Excelsior University has purchased access to WSC's Generic Pressurized Water Reactor (PWR) simulator. This web-based simulator is based on a real operating unit that has been completely tested and verified to perform plant maneuvers in a realistic and accurate manner. The simulator will strengthen your components and system interrelation knowledge.

NUC 271 Fundamentals of Reactor Safety — 3 credits

Prerequisite: NUC 240 Atomic and Nuclear Physics

The course will provide you with an overview of commercial nuclear reactor safety design topics, including basic concepts relating to regulatory requirements, reactor plant safety analysis, reactor protection systems, plant procedural structure, and emergency planning. Additionally, the course will explore significant industry events, including those at Three Mile Island, Chernobyl, and Fukushima, as well as the impact of the 9/11 terrorism event.

NUC 280 Leading Change in the Nuclear Industry — 3 credits

Prerequisite: BUS 311 Organizational Behavior, or equivalent.

This course provides learners with the theory and knowledge necessary to lead change in the nuclear industry. Topics include leadership theories associated with organizational change, visionary

leadership, changing behaviors, resistance to change, and conflict. Furthermore, discussions will focus on change management processes relevant to the nuclear industry to ensure safe and efficient operation of nuclear facilities.

NUC 285 Leadership Communications in the Nuclear Industry 3 credits

Prerequisite: none

This course provides the knowledge and skills to formulate strategies for effectively communicating with stakeholders in the nuclear industry. Learners will be able to identify appropriate media and methods of communication as well as develop feedback and monitoring strategies to ensure that the communications are effective. Additionally, the learners analyze communication strategies and provide an oral presentation of a proposed strategy.

NUC 323 Material Science 3 credits

Prerequisites: CHE 101 General Chemistry I, PHYS 203 Physics II, and MAT 221 Calculus II.

This course is a study of how materials are used in nuclear engineering applications. Topics include basic nuclear plant operation overview, atomic bonding, crystalline and non-crystalline structures, diffusion, phase diagrams, mechanical and thermal behavior, failure analysis and prevention, structural materials, ceramics, corrosion, radiation effects on materials, materials commonly used in reactor core and nuclear plant design, and material problems associated with reactor core operation.

NUC 330 Reactor Core Fundamentals 3 credits

Prerequisites: NUC 271 Fundamentals of Reactor Safety, and NUC 323 Material Science, or equivalent.

This course is an introduction to the theory behind operational neutron chain reaction systems. Specific topics in the course include neutron cross sections, fast, epithermal, and thermal neutron fluxes, reaction rates, the fission process, neutron production, neutron multiplication, the six-factor formula, reactivity, subcritical multiplication, prompt and delayed neutron fractions, reactor period, reactivity coefficients, control rod worth, and fission product poisons.

NUC 350 Plant Systems Overview 3 credits

Prerequisites: NUC 271 Fundamentals of Reactor Safety, and NUC 323 Material Science, or equivalent

This course provides an overview of the design, layout, and function of major systems associated with the two nuclear power plant designs currently used for U.S. power production: Pressurized water reactor (PWR) and boiling water reactor (BWR). The course is designed to examine a typical nuclear power plant, system by system, focusing on major system components, controls, and design features. Emphasis is also placed on plant system interconnections and system functions relative to nuclear safety. Web-based PWR and BWR simulation learning tools are utilized to apply and reinforce course material through dynamic learning activities.

NUC 360 Nuclear Leadership—Risk Management/Leadership Courage 3 credits

Prerequisites: NUC 280 Leading Change in the Nuclear Industry, and NUC 285 Leadership Communication in the Nuclear Industry.

This course covers the knowledge and skills necessary to integrate leadership into operational decisions associated with nuclear power plants. Students will be able to develop teams and integrate them into the framework of a commercial nuclear business. This will include developing and demonstrating appropriate business acumen as well as demonstrating an understanding of risk in decision making processes. In addition, the course will focus on helping students develop leaderships styles appropriate to improving the effectiveness of their future organizations.

NUC 495 Integrated Technology Assessment BNX 3 credits

Prerequisites: Complete core requirements for the Bachelor of Science in Nuclear Engineering Technology degree program.

This capstone course integrates all fields of nuclear engineering technology. Students will draw on their knowledge of nuclear engineering technology and competencies to analyze reactor

plant scenarios. The purpose of the course is to integrate the learning achieved in individual nuclear engineering technology courses taken, evaluated industry training, and naval nuclear power training to earn a nuclear engineering technology degree. The knowledge and competencies acquired in natural sciences, health physics and radiation protection, thermodynamics, heat transfer and fluid flows, reactor core fundamentals, and plant systems overview will be utilized to study the principles in nuclear engineering technology. Students will participate in a reactor plant simulation experience that requires considering multiple theoretical concepts and applying those concepts to plant applications. An individual capstone project and a watch team capstone project will be developed and presented to the instructor.

PBH 303 Special Issues in Public Health 3 credits

Prerequisite: none

Public health is all around us and affects our lives daily, from the food we eat, the air we breathe, the water we drink, how we drive and where we live. This course will introduce students to special issues in public health by providing an overview of the issue and its historical perspectives leading up to modern applications and challenges. A population-based frame of reference to the control of disease and prevention of disability in the realm of chronic diseases, infectious diseases and environmental health will be provided. Tools (including informatics and current health policies and laws) essential to the practice of public health will be described. The course will address disparities and inequities in health of vulnerable populations. Finally, an overview of the organizational functions of health systems, and healthcare costs and financing will be presented.

PBH 306 Our Environment, Our Health: An Introduction to Environmental Health 3 credits

Prerequisite: none

This course is designed to introduce students to the basic principles of environmental health and the history and accomplishments of the field. During this course, students will explore the impact of environmental exposures on human health and the impact that humans have on the environment. Students will learn about environmental health issues and determinants of health impacting the population on a global scale. These issues include the human health effects of exposure to physical, chemical, and biological agents, the effects of indoor and outdoor pollution, the impact of climate change on human health, the global environmental burden of disease, and health equity.

PBH 311 Health Disparities: Causes and Consequences 3 credits

Prerequisite: none

The need for a public health workforce trained in equity-based approaches to social determinants of health has increased and is driven by a significant body of literature. In this course students will learn principles and concepts of heath equity and social determinants of health and relevant models and frameworks. Students will critically examine health disparities in the context of health equity.

PBH 320 Substance Abuse—Impact on Individual, Family, Community 3 credits

Prerequisite: none

Alcohol/Substance abuse is a major public health issue. This course introduces students to the impact of alcohol/substance abuse on the individual, family and society. During the course, students will be required to differentiate between abuse and dependence, identify negative consequences, and discuss treatment issues. Students will evaluate various treatment models and settings and develop an awareness of which models are appropriate given the readiness of an individual to engage in treatment. Through the course work, students will have the opportunity to see the progression of the consequences of substance

abuse in a real family from the perspective of the individual, the family and society. Students will develop a greater understanding of the public health concern around substance abuse.

PBH 321 Introduction to Epidemiology 3 credits

Prerequisite: none

Epidemiology is the study of the distribution and determinants of health and illness at the population level, including the application of epidemiology in controlling the issue or illness. During this course, students are introduced to the basic concepts, principles and application of epidemiology to aid in understanding procedures for studying, preventing, and controlling diseases, environmental health hazards, and accidents. Current real-world public health scenarios will be discussed and applied to the material.

PBH 323 Principles of Public Health 3 credits

Prerequisite: none

This course introduces students to key concepts, and principles in public health. Students will learn about the history of public health and the important role and responsibilities public health practitioners have in improving quality of life for populations. Topics covered in this course include, but are not limited to, the built environment, chronic and infectious diseases, health disparities, ethics, and preparedness.

PBH 346 Post Traumatic Stress Disorder: A Gathering Storm 3 credits

Suggested Prerequisite: PSY 101 Introduction to Psychology (recommended)

This course will explore the causes of post-traumatic stress disorder (PTSD) and the effects that it has on individuals, families, communities, and the global society. You will learn about the history, root causes, and prevalence of PTSD; the bio-neuro-psychosocial impact of trauma on the health of individuals and families; the influences of culture and resilience; and current best practices and treatments available to survivors. You will study PTSD as it relates to different forms of trauma resulting from natural and man-made disasters, global health threats (pandemics), military service, interpersonal violence, and gun trauma. Lastly,

you will learn how communities can work towards healing and prevention.

This course was cross-listed with MIL 346. Credit for only one of these courses will be applied toward graduation.

PBH 421 Global Health 3 credits

Prerequisite: none

This course provides a comprehensive overview of community-level, societal, and geopolitical factors that influence global health in developing countries. Students will explore interdisciplinary perspectives of global health regarding health care systems, environmental health and disasters, trends in communicable and non-communicable diseases, and cutting-edge improvements in global health interventions. Students will examine similarities and contrasts across cultures and environment, with attention to issues of health equity and shifting ideologies in global health.

This course was cross-listed with SOC 421. Credit for only one of these courses will be applied toward graduation.

PBH 427 Planning and Evaluating Public Health Programs 3 credits

Prerequisite: none

Program planning and evaluation are essential competencies of public health practice. You will develop an understanding of cultural competence in the role of health promotion and education when addressing health challenges that affect culturally and racially diverse communities. You will learn the practical aspects of program planning as well as acquire a detailed understanding of evaluation methodology used in public health programs and policy interventions. You will learn to apply the critical principles of program planning and evaluation methodology as they relate to the practice of public health.

PBH 468 Public Health Capstone 5 credits

Prerequisites: Students must have completed all other requirements of the professional and additional credit components degree including the written English requirement, and be within 9 credits of completing the arts and sciences component.

This capstone course requires students to integrate academic work, knowledge, skills and experiential learning to validate comprehension of foundational public healthy principles. The capstone is designed to guide student development of a multi-component project that demonstrates understanding of basic elements of public health practice and research. Students will be evaluated on their ability to apply the scientific method of examination to a public health issue.

PHYS 201 Physics I — 3 credits

Prerequisites: MAT 116 PreCalculus Algebra, and MAT 118 Trigonometry, or equivalent.
This is the first course of a 2-course, algebra-based Physics sequence. The material covered in the course is divided into four conceptual areas of Physics: 1) Forces and Motion, 2) Conservation Laws, 3) Properties of Matter, and 4) Oscillations and Waves. Some of the mathematics to be applied in the course will be reviewed as needed. This course is recommended for technical coursework and careers.

PHYS 201 duplicates the Excelsior University Examination PHYx140 Physics. Students will receive credit for either the course or the examination, as both will not be applied toward graduation.

PHYS 202 Physics I Laboratory — 1 credit

Suggested Prerequisite: PHYS 201 Physics I or equivalent first, or taken concurrently (strongly recommended).
The course covers a wide range of basic topics in Physics I in a simulated laboratory setting. The activities are chosen to give students the opportunity to experiment, observe, measure, record, discover, and understand the close relationship between the experimental observations and principles under study.

PHYS 203 Physics II — 3 credits

Prerequisite: PHYS 201 Physics I, or equivalent.
This is the second course of a 2-course, algebra-based Physics sequence. The material covered in the course is divided into three conceptual areas of Physics:

1. Electricity and Magnetism,
2. Optics, and
3. Modern Physics.

Some of the mathematics to be applied in the course will be reviewed as needed. This course is recommended for technical coursework and careers.

PHYS 203 duplicates the Excelsior University Examination PHYx140 Physics. Students will receive credit for either the course or the examination, as both will not be applied toward graduation.

PHYS 204 Physics II Laboratory — 1 credit

Prerequisite (Strongly Recommended): PHYS 203 Physics II or equivalent, or taken concurrently.
The course covers a wide range of basic topics in Physics II in a simulated laboratory setting. The activities are chosen to give students the opportunity to experiment, observe, measure, record, discover, and understand the close relationship between the experimental observations and principles under study.

POL 320 The Geopolitics of Energy and Global Climate Change — 3 credits

Prerequisite: none
Energy consumption is the lifeblood of the US and global economy, yet we seldom investigate the costs involved in making a gallon of gas cheaper than a gallon of milk. When you fill up your tank, have you ever wondered where the fuel comes from or what it really takes to make this necessary energy source so readily available? When you hear about costly wars, international rivalry, or domestic strife in energy-rich regions like Russia, the South China Sea, Arctic, or the Middle East, do you question how these might be related? Beyond the near constant rivalry over energy, even alternative energy technologies used in renewables, global climate change looms as an almost incalculable cost. In this course you develop a geopolitical lens onto energy and climate change by looking at powerful state, military

and corporate actors, each pursuing its own, often conflicting, objectives. You examine how these actors influence geopolitics and climate change, such as with the homeland and national security implications of increased resource rivalry, sea levels, storm intensities, Arctic melt and drought. In this course you examine the political realities of energy today and the possibilities of different, more sustainable tomorrows.

POL 351 War and Peace after the Cold War   3 credits

Prerequisite: none

This course analyzes key actors and trends in international relations since the end of the Cold War in 1989–1991. The course explores how cooperation accompanying the end of the Cold War faded into an 'Age of Terror' and great power rivalry. Students look at conflict and cooperation throughout the post-Cold War period and examine important events, including: the end of the Cold War; the Balkans Wars; the rise of the interdependent global economy; Islamic Fundamentalism and the War on Terror; Russia-China-US competition emerging since 2008; and, the fate of American dominance of world politics. The course ends with the contemporary debate over America's role as global leader amidst challenges from ascending states like China and non-state threats from terrorist groups and global health and climate dilemmas.

This course replaces POL 350. Credit for only one of these courses will be applied toward graduation.

PSY 101 Introduction to Psychology I   3 credits

Prerequisite: none

In this self-paced, instructor-led class, you'll apply psychological principles and theory to your everyday life. In addition to foundational topics like psychology as a science, learning and memory, human development, and consciousness, each student creates an individualized path through the course by choosing to study topics like stress and health, psychological disorders and therapy, and human sexuality. Concepts learned in this course can be applied in any career to better understand behavior, thought, and emotion.

Please note that while this class is personalized, all work must be submitted by the last day of the course.

This course uses a lower cost interactive webtext instead of textbooks.

This course duplicates PSYx101 Introduction to Psychology. Credit for only one of these will be applied toward graduation.

PSY 220 Psychology of Personality   3 credits

Suggested prerequisite: PSY 101 Introduction to Psychology, or equivalent.

This course provides an overview of personality psychology and related issues. Students will explore the history and systems of personality, analyze current theories and evidence associated with personality psychology, and learn how personality is assessed and researched. Learners examine individual differences, including the way gender, race, religion, and national origin impact personality development and expression. Special emphasis is placed on personality in the workplace to help learners identify careers appropriate for their personality and better understand the traits that are highly valued by employers.

This course uses a lower cost interactive webtext instead of textbooks.

This course duplicates PSYx101 Introduction to Psychology. Credit for only one of these will be applied toward graduation.

PSY 235 Lifespan Developmental Psychology   3 credits

Suggested prerequisite: PSY 101 Introduction to Psychology, or equivalent.

This course introduces the science of lifespan development and the concept of human growth as being a product of the interaction among the biology, psychology, and environment of the individual. This course examines the physical, cognitive, psychosocial, and environment factors across the lifespan. Students will explore, analyze, and present theories and evidence associated with developmental science from conception through death. Concepts learned in this course can be

applied to any career focusing on health or human services and can help learners raise healthier children and live in more functional families.

This course duplicates PSYx210 Life Span Developmental Psychology. Credit for only one of these will be applied toward graduation.

PSY 280 Abnormal Psychology   3 credits

Suggested Prerequisite: PSY 101 Introduction to Psychology I, or equivalent.

What is normal, anyway? Abnormal psychology is a course where we talk, think, and share our ideas about mental health diagnoses, the cultural contexts in which they exist and are treated, and most importantly: the unique people who have them. In this course we will apply concepts of abnormal psychology, evaluate the role of diversity on the development and prevalence of disorders, identify diagnostic features, examine stigma, and research evidence-based treatment methods.

This course duplicates PSYx310 Abnormal Psychology. Credit for only one of these will be applied toward graduation.

PSY 305 Research Methods

Suggested Prerequisite: Written English Requirement

During this course you will investigate how research is conducted in the social sciences. You will learn research methods and techniques that you are likely to come across in your professional and personal lives. Throughout the course, you will have opportunities to apply the different research methods and techniques that you have learned. Lastly, you will leave the course with an understanding of research methods that will give you the knowledge and skills needed to gather, evaluate, and apply information and research findings.

PSY 330 Educational Psychology   3 credits

Suggested prerequisite: PSY 101 Introduction to Psychology I, or equivalent.

Are you interested in how people learn? Educational psychology is an applied field examining how learning occurs at all ages. Topics covered include learning and cognition, cognitive

development, motivation to learn, classroom management, teacher-centered and learner-centered instruction, and various contexts in which learning occurs. Students will uncover evidence-based strategies for effective teaching, learning, and assessment as well as ways to create effective learning environments. Upon completion of this course, students will be able to apply their knowledge of educational psychology to any career that involves teaching or training.

PSY 340 Psychology of Learning   3 credits

Suggested prerequisite: PSY 101 Introduction to Psychology I, or equivalent.

What does it mean to "learn"? This course provides an overview of the major theories that explain the dynamics of behavior and learning in humans and animals. Topics include classical and operant conditioning, social learning, learning occurring through the media, memory, and forgetting. This course has a focus of making course concepts meaningful by helping students create connections between learning and career outcomes. The concepts learned in this course can be applied to any career in which it's important to teach, influence, or change the behavior of self or others.

PSY 360 Social Psychology   3 credits

Suggested prerequisites: PSY 101 Introduction to Psychology I, or equivalent.

This course analyzes how people influence and are influenced by the real or imagined presence or others and how people interact with and relate to those around them. Topics include research in social psychology, social cognition, social perception and judgment, attitudes and attitude change, conformity and obedience, group behavior, attraction and intimate relationships, helping behavior, aggression, prejudice, and the application of social psychology to other fields including the legal system. The concepts learned in this course can be applied to all careers in which one works with and in teams, as well as work where it is important to influence or persuade others.

This course uses a lower cost interactive webtext instead of textbooks.

This course replaces PSY 320. Credit for only one of these courses will be applied toward graduation.

This course also duplicates the Excelsior University Examination PSYx365. Students will receive credit for either the course or the examination, as both will not be applied toward graduation.

PSY 362 Psychology of Human Sexuality   3 credits

Suggested prerequisite: PSY 101 Introduction to Psychology I, or equivalent.

Sexuality plays in a major role in each individual's life throughout the lifespan. This course is a critical inquiry through the lenses of theory and research into the psychosocial and physiological aspects of sexuality. Topics include the psychology of love, intimacy and relationships, sexually transmitted infections, sexual assault, gender identity, sexual orientation, and sociocultural influences impacting sexuality. This course increases student knowledge, ability, and skill in thinking about and discussing human sexuality in different contexts. The concepts explored and practiced in this course can be applied to any career in the health or human services.

This course uses a lower cost interactive webtext instead of textbooks.

PSY 365 Psychology Of Diversity   3 credits

Suggested prerequisite: PSY 101 Intro to Psychology, or equivalent.

This course introduces students to a study of understanding how people think, feel, behave, and interact within diverse social contexts. Fully understanding the psychology of diversity requires consideration of the historical, political, educational, economic, and societal factors that influence psychological processes and people's responses to diversity. Students will study both differences and similarities that are at the intersections of gender, race, ethnicity, sexual orientation, weight, age, language, veteran status, and other factors. Readings, including recent journal articles, provide a greater understanding of diversity and the interrelationship between

diversity and psychology, and an appreciation for the value of diversity. Students develop a better understanding of themselves and the world around them in an appreciation for a global society. The concepts learned in this course can be applied to any career in which it is valuable to have a better understanding of how to successfully leverage the benefits of diversity.

PSY 380 Biopsychology   3 credits

Suggested prerequisite: PSY 101 Introduction to Psychology I, or equivalent.

This course examines how neurons work individually and together to enable behavior, feelings, and thoughts. The structures and functions of the nervous system are examined to provide the biological bases of behavioral development, perception, learning, memory, cognition, motivation, language, sleep, and psychological disorders. The concepts learned in this course can be applied to any health science or human service career.

This course uses a lower cost interactive webtext instead of textbooks.

PSY 420 Human Motivation   3 credits

Suggested prerequisite: PSY 101 Introduction to Psychology I, or equivalent and at least one 300-level course in psychology.

Motivation can be thought of as what energizes and directs human behavior, and when studying motivation, researchers attempt to ask to questions: a) What causes behavior?, and b). What causes behavior to vary in intensity? This course examines the major issues and theories that describe and explain human motivation across the globe. Individuals' behavior is examined from biological, psychological, and social perspectives. Students will analyze and integrate information from empirical research in psychology, in order to develop an understanding of motivation that is applicable to all individuals, including students' own lives. The concepts learned in this course can be applied to across a multitude of settings including leading, managing, counseling, nursing, teaching, and parenting.

PSY 440 History And Systems   3 credits

Suggested prerequisites: PSY 101 Introduction to Psychology I, and a minimum of two upper level psychology courses.

This course provides an overview of historical perspectives and theoretical developments that have contributed to the modern discipline of psychology throughout the world. In addition, students will study the terminology, theoretical systems and theorists. Major perspectives will be discussed, including Gestalt psychology, structuralism, behaviorism, psychoanalysis, and cognitive psychology. Students also study psychology of social change and the development of modern psychological branches and applications. The concepts learned in this course are particularly relevant for learners making connections across different fields and disciplines in psychology.

SOC 101 Introduction To Sociology   3 credits

Prerequisite: none

This course offers an introduction to the major concepts, theoretical perspectives, research methods, and scholars in sociology. Sociology is the scientific study of human social behavior, and this course examines several important sociological topics, including culture; socialization; deviance; social inequality; social institutions; and social change. This course also explores various socio-historical and socio-cultural frameworks across the world, promoting an appreciation for unique cultural identities and institutions. Students will improve their analysis, understanding and interpretation of contemporary social issues in this rapidly changing world. This course encourages the practical understanding of sociology through exploration of students' everyday social world, and the often invisible and taken-for-granted social forces that shape it.

SOC 110 Introduction To Interdisciplinary Social Science   3 credits

Prerequisite: none

This course introduces students to the study of the leading disciplines that make up the social sciences, particularly: economics, political science, psychology, and sociology. Students will explore the origins of the leading social science disciplines, important theories related to them, and begin the course-long project of comparing, contrasting, and combining their approaches to the primary, interdisciplinary subject of the course human behavior and organization. In learning about each discipline, students will gain a greater understanding of the common interests and research concerns of all social scientists. One of these common features among social scientists is the desire to identify patterns and solve problems. The nature and purpose of inquiry is common to all social sciences—how and why do individuals and groups behave as they do? Are causes of these behaviors possible to find, thus making it possible to solve their worst forms and consequences? The course emphasizes an interdisciplinary approach to the study of human behavior and organization, and shows the importance of using many different social science fields to understand and solve contemporary problems, whether at the local or global level of human society.

SOC 217 Introduction To Counseling And Case Management   3 credits

Prerequisite: none

This course provides a foundation for students with an interest in counseling. Adopting a social science perspective to the essential role of counseling in a just and stable society, the course introduces students to the theory and methods of the counseling profession as well as the basic elements of case management. The course will cover: theories of mental health diagnoses; therapeutic strategies; client/patient relationships; clinician ethics; and the organization of case files. Students will gain an invaluable and practical understanding of the counseling professions that will serve as a building block for developing further expertise in the counseling field within the human services profession.

SOC 221 Why We Overeat: Perspectives On Nutrition 3 credits

Prerequisite: none

Have you ever wondered whether Americans are overweight, uniquely large relative to other populations in the world? Have you ever wanted to better understand your own eating habits and their causes and consequences? This course allows you to explore these questions and examine the personal and societal mechanisms underlying America's number one public health issue—the obesity epidemic. The course uses a social sciences lens to examine this public health crisis, and evaluates the individual and social factors that have resulted in the obesity epidemic. Students will explore why our nutritional needs no longer drive our dietary habits, and how this is exploited by the food industry. On an individual level, our appetites are stimulated by the highly addictive ingredients of sugar, fat, and salt that the food industry uses in low-priced products, while our food choices are often constrained by social and economic conditions. This results in a cycle of desire and consumption that ends with a nation of overeaters, both children and adults. Additionally, students evaluate societal factors influencing obesity, such as less emphasis on physical activity at school and at home, socioeconomic differences in diet and nutritional availability, the emergence of the internet and television as principal sources of entertainment, etc.—all of which lead to an increasingly sedentary modern American lifestyle. Using these analyses and information, students will identify and discuss solutions to fight back against the food industry and end overeating.

This course was cross-listed with HSC 221. Credit for only one of these courses will be applied toward graduation.

SOC 230 Introduction to Human Services 3 credits

Prerequisite: none

The course introduces the principles, practices, and functions of the human services field and profession. Students will examine the history, current trends and policies related to the human services field, as well as key legal and ethical issues confronting human services professionals. The roles of the human services professional as well as the client will be defined and explored through detailed examination of the delivery of human services. Students will demonstrate their mastery of the history and background of the Human Services movement as well as the helping process itself by developing their own basic skills and intervention strategies. Students will then evaluate models of human service delivery and explore legal and ethical considerations in human services delivery. Students begin developing their competencies regarding the ethical standards of Human Services professionals as well as taking their first academic steps in this vital profession.

SOC 240 Addictions In America 3 credits

Prerequisite: none

This course helps students develop a greater understanding of a variety of addictions. Using an ecosystems approach, the addictive process and recovery will be studied, including the reciprocal interaction between addicted individuals and their various social systems. Students will examine substance abuse and behavioral compulsions in considerable detail with a focus on addiction in various populations as well as the business of drugs and prevention. Attention will be given to the biological and genetic factors in the etiology of addiction, family issues, and community responses. The consequences of addictions will be studied at the individual, family, and community levels. This course draws on current research in the field of addictions, and emphasizes critical analysis of contemporary controversies. This course builds on the foundations of health and human services knowledge and skills to help students better understand this complex problem affecting American society.

This course was cross-listed with HSC 240. Credit for only one of these courses will be applied toward graduation.

SOC 247 Sports In American Society   3 credits

Prerequisite: none

Were sports an important part of your life as young person? Have you made sports part of how you raise your own children or interact with other youth in your life? In many ways sports are not just a metaphor for life, but are the very beating heart of our social life. Because sports are such an important part of US society, we seldom reflect on how or why it became such a force, why we engage it—as participants, fans, parents, or coaches—and how, even if we hate sports, it shapes so much of what goes on around us every day. In this course, we explore how sport dates back to the earliest of civilizations, always revealing and demonstrating various layers of identity and power within society. Simply put, sport is an institution that affects virtually all aspects of society. In this course, you will examine sports and the institution of sport from a variety of social science perspectives, including from historical, political, economic and sociological viewpoints. You will find the broader meaning that sport has for those who participate and those who watch.

SOC 318 Sociology of the Workplace   3 credits

Prerequisite: none

What is the meaning and nature of work in contemporary America? What does it mean to have a job compared to a career, and what individual and societal understandings do we attach to the "value of work"? This course explores these questions and examines the history of work, contemporary workplace issues, governmental statistics and social science theories used to study work. Whether the workplace refers to the home, the corporate office, or the factory floor, you will learn the methods, theories and statistics used to study work, the workplace, and the relationships among the workplace, workers and the broader social world. You will address current and relevant issues related to work and the workplace, including: the meaning of work; discrimination and inequality; technology in the workplace; work and family; and globalization's effects on the American worker

and workplace.

SOC 323 Deviant Behavior   3 credits

Suggested prerequisites: SOC 101 Introduction to Sociology, SOC 110 Introduction to Interdisciplinary Social Science, or equivalent.
This course will familiarize students with theories and applications of deviance, deviant behavior, and the social interactional process of being deviant. Students will read original texts and begin to understand the larger body of social interaction research in sociology and anthropology that has given rise to contemporary theories of deviance and learn to relate these concepts to other works in the social sciences and criminal justice. Students will also learn to apply the ideas from their theoretical reading to contemporary life and to their own personal and professional experiences. In addition to reading, writing and discussion, students will engage in a short field activity, during which time they will have the opportunity to make their own scientific observations of deviant behavior.

This course was cross listed with CJ 323, Credit for only one of these courses will be applied toward graduation.

TECH 180 Personal Protection Equipment for Electrical Work   3 credits

Prerequisite: none

This course will focus on providing students with the information necessary for selecting the correct personal protection equipment (PPE) to perform electrical work on various voltage rated systems/components. Students develop an understanding of the National Fire Protection Association (NFPA) Electric Code requirements regarding the identification and selection of PPE for performing electrical work. Additionally, students develop an understanding of arc-flash calculations and boundaries associated with performing work on systems/components varying in voltage rating. A 3D simulation scenario assists the student in understanding PPE identification and selection for electrical work. This is a 3-credit course, requiring a minimum of 18 hours of course engagement each week in an 8-week

term (refer to the *Credit Hours Calculation Policy* in the Student Handbook), Course engagement includes such activities as discussions, reading, study time, and assignments.

TECH 185 Blueprint Reading — 3 credits

Prerequisite: none

Introduction to blueprint, facility floor plan diagrams, and blueprint components will be performed in class portion of the course. In simulation part of the course, the learner will read blueprints for lock out/tag out, utilize lock out/tag out practices, apply and verify lock out/tag outs.

Textbooks are generally not required for this course. However, course materials may update in a given term prior to registration opening. Students should therefore always review course material requirements and associated costs at our bookstore for the term in which they are registering.

TECH 200 Technical Writing — 3 credits

Prerequisite: ENG 101 or equivalent course

In this 3-credit course, you will learn effective technical approaches in written and digital communications (email, presentations, technical reporting, and technical instructions). This course will introduce you to writing technical problem statements and you'll gain valuable practice in analyzing target audiences, conducting research, integrating evidence, and preparing written and visual documents. You will also explore a variety of activities to ensure you know how to employ proper voice, tone, and style for technical communication.

TECH 225 Applied Instrumentation and Control — 3 credits

Prerequisites: Knowledge in Basic Algebra, Trigonometry, and AC/DC Circuits.

This course focuses on instrumentation; temperature, pressure, and flow measurements; transducers; pneumatic and hydraulic systems; programmable logic controllers; and process control. In this course the students will have the opportunities to explore the characteristics and operations of different types of transducers and measuring instruments. The importance of system models as well as their relationship between process control will also be covered in this course.

TECH 230 Technology and Society — 3 credits

Prerequisite: none

This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change and the evaluation of the implications of technology. Upon completion, students should be able to critically evaluate the implications of technology upon society.

TECH 233 Electrical Power Distribution — 3 credits

Prerequisite: Recommended College Algebra and AC/DC Circuits

This course provides students a comprehensive overview of commercial Electrical Power Distribution. Students examine power system flow dynamics along with those elements and facilities associated with electrical power generation, its transmission, and subsequent distribution to gain a working understanding of Electrical Power Distribution. Additionally, students assess frameworks associated with economic, regulatory, and energy accounting practices to gain in depth understanding of how and why telemetry, communication, and control requirements are vital to maintaining electrical power system stability and reliability.

TECH 240 Job Task and Troubleshooting — 3 credits

Prerequisites: TECH 180 Personal Protection Equipment for Electrical Work , TECH 185 Blueprint Reading

This is a course to introduce troubleshooting and safety strategies that enable students to solve problems in a safe, cost-effective and timely context and apply appropriate troubleshooting strategies when repairing electrical equipment. In simulation part of the course,

the learner will perform hazard analysis, read blueprint, inspect work areas, select LO/TO equipment, troubleshoot and repair electrical equipment.

TECH 250 Renewable Energy Overview I: Solar and Geothermal   3 credits

Prerequisite: Recommended AC/DC electric theory.

This course offers an overview of solar (photo-voltaic) energy, solar thermal energy, and geothermal energy. It also describes green building technologies (sustainable systems design). Political, economic, and environmental impact will also be discussed.

TECH 251
Renewable Energy II: Wind And Water   3 credits

Suggested prerequisite: In order to comprehend the course materials it is recommended the students understand AC/DC electric theory.

This course offers an overview of wind energy and water energy in both commercial and noncommercial applications. It continues discussion from TECH 250 regarding sustainable system design regarding green building technologies. Political, economic, and environmental impact will also be discussed.

TECH 260
Energy Industry Fundamentals   3 credits

Prerequisite: none

The purpose of the Energy Industry Fundamentals course is to ensure students gain an understanding of the energy industry. The Energy Industry Fundamentals course aligns with tiers 4 and 5 of the Energy Competency Model developed by the Center for Energy Workforce Development (CEWD) and the U.S. Department of Labor. As such, it covers such basics as emerging principles and concepts that impact the energy industry; compliance with safety and health procedures; how electric power and natural gas generation, transmission, and distribution work; a range of entry-level energy careers; and hot topics in energy. The course prepares students for the CEWD Energy Industry Fundamentals certificate exam. This is a 3-credit course, requiring a minimum of 18 hours of course engagement each week in an 8-week term (refer to the Credit Hours Calculation Policy in the Student Handbook), Course engagement includes such activities as discussions, reading, study time, and assignments.

Textbooks are generally not required for this course. However, course materials may update in a given term prior to registration opening. Students should therefore always review course material requirements and associated costs at our bookstore for the term in which they are registering.

TECH 290 Integrated Technology Assessment AAST   3 credits

Prerequisite: This is a required course in the Associate in Applied Science in Technical Studies program; it is only open to Associate in Applied Science in Technical Studies students who have completed most, if not all degree requirements and should be taken in the final term.

This course is an online portfolio development experience that requires students to reflect on their past academic and professional experiences and use the information gained from this reflective exercise to develop learning statements related to the Associate of Applied Science in Technical Studies (AAS-T) degree outcomes. The learning statements must be supported by documented evidence that demonstrates that the outcomes have been met. Students learn how to develop an online portfolio during the first module of the course and then work under the guidance of a faculty mentor during the remainder of the semester to compose learning statements, compile appropriate evidence, and create the Integrated Technology Assessment report.

TECH 295 Integrated Technology Assessment AST

Prerequisite: This is a required course in the A.S. Technology program. It is open only to A.S. Technology students who have completed all other Technology core requirements and most, if not all, General Education requirements.

This is the required capstone course for the Associate in Science in Technology program. It requires students to reflect on their past academic and professional experiences and use the information gained from this reflective exercise to develop learning statements related to the Associate in Science in Technology outcomes. The learning statements must be supported by documented evidence that demonstrates meeting the outcomes, and culminate in the Integrated Technology Assessement report.

TECH 330 Economic Analysis for Technologists   3 credits

Prerequisite: College Algebra or Statistics. Required Knowledge: The course is highly quantitative. Strong algebra skills and the ability to create spreadsheets, especially EXCEL, are required for this course. College algebra, basic statistics or equivalent are required. Knowledge of micro or macro economics is recommended.

This course studies the application of economics and decision theory to the evaluation of engineering alternatives in planning, developing, constructing, and managing engineering projects. Students will learn the tools necessary to optimize multiple projects coupled with limited time, limited help, limited money, and limited resources.

TECH 340 Introduction to Energy Utilization   3 credits

Prerequisite: none

This course assesses how factors in the supply and demand of energy have influenced the landscape of the energy sector within and outside of the United States. It critically analyzes how economic, political, environmental, and social implications,

at both the macro and micro levels, have affected technological advancements related to energy. Renewable energy sources include wind, photovoltaics, fuel cells, and biomass were also presented as well as information regarding state-of-the- art renewable energy technologies for the electric power and transportation industries.

TECH 490 Technology Management Capstone: Integrated Technology Assessment (ITA)

Prerequisite: This is a required course in the Bachelor of Professional Studies (BPS) in Technology Management Degree Program; it is only open to Bachelor of Professional Studies (BPS) in Technology Management students who have completed most, if not all degree requirements and should be taken in the final term.

This course is an online portfolio development experience that requires students to reflect on their past academic and professional experiences and use the information gained from this reflective exercise to develop learning statements related to the Bachelor of Professional Studies (BPS) in Technology Management degree outcomes. The learning statements must be supported by documented evidence that demonstrates that the outcomes have been met. Students learn how to develop an online portfolio during the first module of the course and then work under the guidance of a faculty mentor during the remainder of the semester to compose learning statements, compile appropriate evidence, and create the Integrated Technology Assessment report.

TECH 495 Integrated Technology Assessment BST   3 credits

Prerequisite: This is a required course in the Bachelor of Science in Technology (BST) Degree Program; it is only open to Bachelor of Science in Technology (BST) students who have completed most, if not all degree requirements and should be taken in the final term.

This course is an online portfolio development experience that requires students to reflect on their past academic and professional experiences

and use the information gained from this reflective exercise to develop learning statements related to the Bachelor of Science in Technology (BST) degree outcomes. The learning statements must be supported by documented evidence that demonstrates that the outcomes have been met. Students learn how to develop an online portfolio during the first module of the course and then work under the guidance of a faculty mentor during the remainder of the semester to compose learning statements, compile appropriate evidence, and create the Integrated Technology Assessment report.

COLLEGE OF LIBERAL ARTS AND SCIENCES
GRADUATE DEGREES
AND CERTIFICATE PROGRAMS

MISSION STATEMENT

The College of Liberal Arts and Sciences
develops students to be leaders and
succeed in careers of the future
and within their communities
by providing high-quality, experiential, and
market-oriented academic learning opportunities
enabled by technology, delivered by expert, collaborative,
and caring faculty, and supportive of
students' lifelong success.

IMPORTANT INFORMATION FOR ALL GRADUATE STUDENTS

Student Policies

Excelsior University student policies are impotant to your academic success. They include important federal policies, including your right to privacy, to grading policies and policies and procedures concerning refunds, withdrawals, and other administrative issues.

It is your responsibility to be familiar with these policies. The term "students" includes those currently matriculated at Excelsior University taking examinations and/or courses, non-matriculated students taking examinations and/or courses, non-matriculated students in the application process, individuals using the OneTranscript® service (formerly Credit Bank), formerly matriculated students currently in withdrawn status, and graduates.

The student policies are posted at: https://www.excelsior.edu/policies/students/.

Total Credits

Credits for graduate programs range from 30 to 36 credits. Credits must satisfy the requirements prescribed for each degree program. See the Graduate Degrees section starting on page 177 for credit requirements for each specific degree program.

Acceptance of Transfer Credit

Previously completed graduate-level coursework may be used to satisfy the requirements of the graduate degree programs if approved by the faculty. In most instances, graduate credit used toward undergraduate degree requirements will not be accepted in transfer. See individual degree program pages for specific transfer credit policies.

Minimum Academic Average

Graduate students must achieve a minimum grade of C in all Excelsior University courses, and must have a cumulative grade point average (GPA) of 3.0 or better to graduate.

Time to Degree Completion

Excelsior's degree programs are designed to be completed at your own pace. However, a student attending full-time could complete:

- ▶ an associate degree in two years;
- ▶ a bachelor's degree in four years; or
- ▶ a master's degree in two years.

Standardized Testing Participation

As an Excelsior University student, you have a responsibility to participate in standardized tests that may be required during the period of your enrollment. These tests may be in addition to regular coursework and are required to gather critical information on achievement of student learning. You are expected to actively participate and make every effort to do your best on these assessments. One example of this type of test is the Proficiency Profile published by the Educational Testing Service. The results from these assessments will not be part of your grade, but are crucial for program improvement and are frequently required by regulators and accreditors. Participation in these assessments contributes toward increasing the value of your degree by providing evidence of student learning to external organizations, employers, and the general public.

Excelsior University Website

The Excelsior University website (excelsior.edu), provides access to a wealth of information to help you succeed as a student. If you haven't already done so, create a MyExcelsior user account. It will serve as your gateway to a variety of support services and is where you will find up-to-date information about your academic program and receive announcements from Excelsior.

Technology Literacy and Baseline Technology Skills and Resources

Excelsior University defines technology literacy as the ability to identify and responsibly use appropriate technology to communicate, solve problems, access, manage, integrate, evaluate, and create information to improve learning. This will facilitate the ability to acquire new knowledge for lifelong learning in the 21st-century global workplace.

To be successful in online learning, you will need reliable access to a computer with Internet connectivity and be able to use:

▶ a personal computer,

▶ software programs to create, edit, store and print documents,

▶ electronic communication tools, and search and retrieve information from electronic sources to complete assignments and activities,

▶ Excelsior's website to access information and resources, and

▶ Excelsior's learning management system to access learning resources, participate in course discussions, and complete assignments.

In addition, your computer and operating systems must meet some minimal technical requirements as described in the Excelsior University Computer System Requirements.

GRADUATE STUDENT **CAREER COMPETENCIES**

1 DIVERSITY, EQUITY AND INCLUSION

Leaders today operate in both regional and global environments. To be effective leaders in any profession, it is important to understand how social constructions of identity are shaped through cultural, legal, and political practices. Leaders across professions strive to achieve diversity, equity, and inclusion at individual, group, community, institutional, and global levels. Through this competency, students will explore the ways in which power dynamics influence stakeholder groups in a designated profession. Using real-world scenarios, students will examine ways to ensure diversity, inclusion, and equity within organizations and professions through influence of social and political advocacy.

Upon graduation, you will be able to:

1.1. Address the disparities in power, equity, and inclusion that are experienced and perpetuated in society.

2 ETHICAL LEADERSHIP

Effective leaders have a strong sense of ethics and an ability to influence people and positive change because of their strong professional presence. They have a vision for what could be. They identify, implement, and evaluate innovative, inclusive, and practical ethical solutions to a variety of problems. Through this competency, students will hone their skills in making decisions under a variety of circumstances, persuading and influencing strategic change. They will guide diverse stakeholder groups in achieving an organization's mission and vision. As ethical leaders, students will use data, research, analytics, and/or financial information as they challenge assumptions and biases to address harms and injustices.

Upon graduation, you will be able to:

2.1. Apply leadership practices based on evidence that promote ethical and collaborative sustainable change.

2.2. Justify decisions informed by ethical principles and disciplinary standards that address complex issues.

3 INNOVATION

Innovation involves seeking new approaches, processes, technologies, practices, and/or solutions that improve personal, community, and/or organizational performance and well-being. True innovators have the courage to take calculated risks to increase the chances of success. Through this competency, students will address real-world issues and develop creative solutions.

Upon graduation, you will be able to:

3.1. Develop evidence-informed innovative processes, practices, and/or solutions.

3.2. Recommend strategies for leveraging technologies for organizational innovation and improvement.

4 COMMUNICATION

Effective communication and emotional intelligence are vital in the workplace, in our personal lives, and in society. Communication is multifaceted and includes the ability to negotiate, persuade, advocate, argue, inform, educate, and engage diverse groups, individuals, and/or organizations on a variety of issues. Through this competency, students will use real-world experiences and influence others using a variety of skills and modalities.

Upon graduation, you will be able to:

4.1. Confidently and professionally apply multiple methods of effective communication for diverse audiences.

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COLLEGE OF LIBERAL ARTS AND SCIENCES
GRADUATE DEGREE PROGRAMS

Degree area key

Business	Liberal Arts	Public Service	Technology
BUS	LA	PS	TECH

Refer to the **Excelsior University College of Nursing and Health Sciences Catalog** for programs in those areas.

MASTER OF
BUSINESS ADMINISTRATION

33
CREDITS

DEGREE REQUIREMENTS

CORE COMPONENT

▶ IND 501 An Interdisciplinary Approach to Ethical Leadership

▶ IND 502 Strategic Talent Management in a Complex World

▶ IND 503 Data Driven Decision Making

▶ BUS 505 Finance

▶ BUS 506 Marketing

▶ BUS 522 Global Operations and Supply Chain Management

▶ BUS 572 Technology and Project Management

CONCENTRATION REQUIREMENTS
One of the following concentrations must be declared:

▶ Finance and Accounting
BUS 500 Accounting for Managers, ACC 504 Corporate Financial Reporting and Disclosure, ACC 505 Financial Statement Analysis

▶ Cannabis Control
CBC 600 Implications of Legalization: Policy and Compliance, CBC 601 Complexities of Cannabis as Commerce, CBC 602 Risk Assessment in Cannabis Control

▶ Health Care Management
BUS 526 Strategic Management of Health Care Organizations, BUS 516 Communication Strategy for the Health Care Leader, one (1) approved Health Care Management elective

▶ Human Resource Management
One elective from each of the following categories:
Staffing and Development, Total Rewards, Maintaining High Performance

▶ Leadership
BUS 552 Leadership, BUS 518 Leading Teams, BUS 550 Contingency Planning

▶ Marketing
BUS 545 Social Media Marketing, BUS 573, Strategic Brand Marketing, approved Marketing elective

▶ General Business
Three (3) Business electives

Students can seek additional (double or triple) concentrations by taking 3 additional courses (9 credits per concentration). Additional concentrations are declared after enrollment in the degree program. Students must add additional concentrations prior to being approved for graduation.

BUS 699 MBA Business Strategy Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

Program Description

The Master of Business Administration (MBA) program continues the long-standing Excelsior University model for adult higher education, which recognizes prior learning and enables self-paced study. The MBA is designed to provide a quality education to facilitate career advancement, especially for those who work in middle management positions in business and in other organizations. It emphasizes Ethical Leadership and Decision Making, Design and Development of Corporate Strategy, Multi-Geography/Site Teamwork and Management, and the application of theory to practical situations in all concentration areas, as well as in the general MBA degree. Students are encouraged to build upon their existing work-based knowledge and to share this with others in their courses.

Consistent with Excelsior's mission to provide academic opportunities that overcome barriers of time, distance, and cost, the MBA program allows students to transfer and/or waive up to 15 credits from outside sources. Excelsior offers online courses to fulfill all MBA core requirements, as well as elective and concentration requirements.

Upon admission to the program, each candidate receives an individualized evaluation that indicates which courses the candidate must complete to qualify for the degree. Students can complete the MBA 100 percent online.

Students can seek additional (double or triple) concentrations by taking 3 additional courses (9 credits per concentration). Additional concentrations are declared after enrollment in the degree program. Students must add additional concentrations prior to being approved for graduation.

The Excelsior University MBA is the flexible, accessible, and relevant option for adults who want to enhance their career options and obtain a first-rate graduate education while maintaining family, work, and community obligations.

Specialized Accreditation/Recognition: *The Master of Business Administration is accredited by the International Accreditation Council for Business Education (IACBE), 11374 Strang Line Rd., Lenexa, KS 66215.*

Program Educational Objectives

As an Excelsior University master's-level business graduate, within a few years of graduation, MBA students will learn how to:

1. Design, implement, and evaluate the efficacy of solutions for complex business problems.

2. Engage in lifelong learning for professional, career, and personal development.

3. Lead and work effectively and efficiently in diverse team settings and maintain a high level of performance in a professional business environment.

4. Communicate effectively and efficiently to various audiences in a timely and professional manner.

5. Demonstrate leadership and initiative to ethically advance organizational goals and objectives.

6. Demonstrate adaptability, leadership, mentoring skills, and management in one's chosen career.

Program (Learning) Outcomes

The Excelsior University MBA program is framed within a work-related global business setting to increase academic understanding of business topics, improve career prospects, and expand individual horizons. Students can capitalize upon their existing work-based knowledge while engaging in a process of reflective learning. This program will equip successful students to further their careers through enhanced knowledge, understanding, and application to the business environment.

Upon successful completion of the Excelsior University Master in Business Administration program, the graduate will be able to:

1. Apply interdisciplinary leadership practices based on evidence that promotes ethical, and collaborative sustainable change in business. Interdisciplinary outcome *(IACBE KLO: Management & Leadership)*

2. Evaluate interdisciplinary approaches to problem solving and opportunities to lead a diverse, global workforce. Interdisciplinary outcome *(IACBE KLO: Critical Thinking/Problem Solving)*

3. Communicate professionally to diverse audiences and within team environments.

4. Apply business analysis techniques, technologies, and tools to solve problems and support decision making. *(IACBE KLO: Analysis & Technology Utilization)*

5. Formulate business strategies and solutions based on business knowledge and assess their ethical, legal, economic, and global impact. *(IACBE KLOs: Business Knowledge & Business Environment)*

6. Apply strategic management techniques to build an inclusive team environment that supports members in accomplishing strategic goals and innovation. *(IACBE KLO: Teamwork)*

Degree Requirements

Core Courses (24 credits required)

▶ Ethical Leadership (3 credits)
[IND 501 An Interdisciplinary Approach to Ethical Leadership]

IND 501 must be taken through Excelsior University and cannot be transferred in.

▶ Strategic Talent Management (3 credits)
[IND 502 Strategic Talent Management in a Complex World]

▶ Data Driven Decision Making (3 credits)
[IND 503 Data Driven Decision Making]

▶ Managerial Finance (3 credits)
[BUS 505 Finance]

▶ Marketing (3 credits)
[BUS 506 Marketing]

▶ Operations Management (3 credits)
[BUS 522 Global Operations and Supply Chain]

▶ Technology and Project Management (3 credits)
[BUS 572 Technology and Project Management]

▶ Strategy and Policy (capstone) (3 credits)
[BUS 699 MBA Business Strategy Capstone]

The capstone course is required. It must be taken through Excelsior University and cannot be transferred in.

Concentration Requirements
(9 credits required)

Students round out the MBA by selecting a concentration.

Courses from other Excelsior University master's programs may apply here. Contact your advisor for more information.

Concentrations

FINANCE AND ACCOUNTING

The Finance and Accounting concentration is designed to equip graduates with the necessary principles and tools to be successful in management positions in finance, business, management and accounting firms, corporations, government, and nonprofit organizations.

Along with the business knowledge of the MBA, the Finance and Accounting concentration deepens the understanding of financial statement analysis, corporate disclosure, and nonprofit accounting. The program provides the background to sit for the Certified Public Accountant (CPA), Certified Management Accountant (CMA), and Certified Internal Auditor (CIA) examinations.

Concentration Outcomes

Upon completion of an Excelsior University Master of Business Administration with an Finance and Accounting concentration, the graduate will be able to:

1. Apply advanced financial accounting knowledge to corporations, government, and nonprofits.
2. Prepare and evaluate financial statements and reports.

Required Subjects

▶ Accounting for Managers
   [**BUS 500 Accounting for Managers**]
▶ Corporate Financial Reporting and Disclosure
   [**ACC 504 Corporate Financial Reporting and Disclosure**]
▶ Financial Statement Analysis
   [**ACC 505 Financial Statement Analysis**]

CANNABIS CONTROL

The growing cannabis industry is going to impact all aspects of our current societal process. The regulation of cannabis spans from growing, transportation, public health, and city services to new businesses, financing, and supply chains that cross jurisdictional lines. The concentration in Cannabis Control will give students a solid foundation in compliance, risk assessment, and cannabis as commerce. Completing all three of these courses will also earn you a graduate certificate in Cannabis Control on your way to completing your master's degree.

Required Subjects

▶ Policy and Compliance (3 credits)
   [**CBC 600 Implications of Legalization: Policy and Compliance**]
▶ Commerce (3 credits)
   [**CBC 601 Complexities of Cannabis as Commerce**]
▶ Risk Assessment (3 credits)
   [**CBC 602 Risk Assessment in Cannabis Control**]

GENERAL BUSINESS

The General Business concentration allows students to develop a personalized concentration area that spans multiple business concentrations. Students can tailor their concentration to their specific life and career goals, providing them with flexibility in developing their knowledge and skills.

Required Subjects

▶ Business Elective
▶ Business Elective
▶ Business Elective

MASTER OF BUSINESS ADMINISTRATION

HEALTH CARE MANAGEMENT

This concentration meets the needs of experienced managers who have completed a baccalaureate degree in a health care/ health services program and strive for additional academic rigor to gain a health care master's degree.

Concentration Outcomes

Upon completion of an Excelsior University Master of Business Administration with a Health Care Management concentration, the graduate will be able to:

1. Manage a diverse workforce providing health care for an increasingly heterogeneous population.
2. Analyze and interpret health care funding and delivery trends to provide recommendations for organizational action.

Required Subjects

▶ Strategic Management of Health Care Organizations **[BUS 526 Strategic Management of Health Care Organizations]**
▶ Communication Strategy for the Health Care Leader **[BUS 516 Communication Strategy for the Health Care Leader]**
▶ Approved health care management elective

HUMAN RESOURCE MANAGEMENT

The Human Resource Management concentration provides students with 21st-century knowledge and skills required of human resource managers and executives who deal with human performance issues. Students are expected to effectively apply contemporary theories and empirical research to successfully perform key functions in human resource management, including staffing, employee development, employee relations, conflict resolution, and compensation and benefits.

Concentration Outcomes

Upon completion of an Excelsior University Master of Business Administration with a Human Resource Management concentration, the graduate will be able to:

1. Analyze the legal requirements applicable to human resource decisions.
2. Apply human resource management principles to support organizational objectives.

Electives

Students must select one elective course from each of the following categories:

▶ Staffing and Development (3 credits each) **[BUS 517 Employee Staffing and Development, BUS 519 Training and Career Development, BUS 554 Change Management]**
▶ Total Rewards (3 credits each) **[BUS 512 Compensation and Benefits, BUS 513 International Human Resources, BUS 514 Employment Law]**
▶ Maintaining High Performance (3 credits each) **[BUS 515 Labor Relations and Conflict Resolution, BUS 555 Principles and Practices of Performance Improvement, BUS 670 Conflict Management and Alternative Dispute Resolutions]**

LEADERSHIP

The leadership concentration is designed to recognize the unique competencies that today's leaders have gained while overcoming the complexities within their organizations. These innovative characteristics should be recognized by earning a master's degree associated with the leadership aspects within their careers. This program is tailored toward managers desiring to become successful leaders within an organization that demands creativity and innovation to gain success. Each of these individuals is being challenged every day to design creative solutions and develop complex courses of action with direct impacts to the organization's employees and mission. The Leadership concentration is designed to prepare each manager for the multifaceted complexities they will face today and in the future as a leader. A graduate of this program will be able to successfully serve at a senior-level position within one's respective organization and can be routinely called upon as an expert in one's field. This concentration meets the needs of experienced managers who have completed a baccalaureate degree and strive for additional academic rigor to gain a leadership master's degree. It will be especially suited for Excelsior baccalaureate degree graduates who wish to continue graduate studies with Excelsior.

Concentration Outcomes

Upon completion of an Excelsior University Master of Business Administration with a Leadership concentration, the graduate will be able to:

1. Discuss key issues and challenges associated with managing organizational changes.
2. Apply leadership strategies to manage conflicts in the workplace.

Required Subjects

▶ Leading Teams
[**BUS 518 Leading Teams**]
▶ Contingency Planning
[**BUS 550 Contingency Planning**]
▶ Approved leadership elective

MARKETING

The Marketing concentration allows students to learn and apply advanced constructs in digital marketing with a focus on brand development, launch, and management. The concentration traverses the private and public sector industries in the application of business-to-business and business-to-consumer centric marketing methods.

Concentration Outcomes

Upon completion of an Excelsior University Master of Business Administration with a Marketing concentration, the graduate will be able to:

1. Discuss key issues and challenges associated with managing digital and global marketing efforts.
2. Apply strategies to manage brand and channel development to benefit the corporations go to market efforts.

Required Subjects

▶ Social Media Marketing
[**BUS 545 Social Media Marketing**]
▶ Strategic Brand Marketing
[**BUS 573 Strategic Brand Marketing**]
▶ Approved marketing elective

Policies Specific to the MBA

Policies and procedures that apply specifically to the MBA program are listed on the following pages. All policies can be found in their entirety within the student policy section of the Excelsior University website.

Acceptance of Transfer Credit

Graduate-level coursework that has been completed within 5 years of the date of enrollment may be used to satisfy the requirements of the MBA program if approved by Excelsior University faculty. Students may transfer up to 15 credits. Excelsior will require a minimum grade of B- for any approved graduate course accepted for transfer credit. Excelsior University does not use pluses or minuses, so such grades will be converted to the full

letter grade. To accept a course that is transferring in with a P grade, the Excelsior department/faculty member issuing the P grade must verify that it is equivalent to a B- or better.

Maximum Time to Complete the MBA Program

Students pursing the MBA have a maximum of 5 years from the date of enrollment to complete the program.

Foundation Requirements

For students with bachelor's degrees in economics, business, accounting, sports management, human resources, and marketing, there are no foundation requirements.

Bachelor's graduates with other majors will need to successfully complete a uniquely designed and low-cost business school competency refresher in modules covering basic accounting, fundamental economics, and business statistics. These topics are designed to ensure that MBA student are prepared for the graduate business courses in the curriculum.

These fundamental self-paced modules are provided by Peregrine Global Services, an Excelsior University partner. Each module takes approximately 3–5 hours to complete and students need to correctly answer 14 out of 20 questions (70%) in each module assessment to secure a passing grade. Students have two (2) attempts to pass each module.

Students who are registered to take the competency refreshers will be able to take two (2) core MBA courses prior to completing the modules. A student will need to complete the refreshers to take the rest of the curriculum. Should a student decide to not finish the refresher modules or is unsuccessful, they will have the option to switch their enrollment to another Excelsior graduate program.

Program Content and Requirements

Enrolled MBA students work with Excelsior University academic advisors to make degree plans that meet student needs and conform to the academic policies and course requirements of the program. Excelsior advisors help students determine appropriate options for fulfilling course requirements that meet their academic and career objectives, preferred learning styles, and current lifestyles. We believe this diversity of educational alternatives makes our program unique and helps to ensure that additional graduate business education alternatives are provided to populations traditionally underserved by higher education.

The Excelsior University MBA offers diverse options for degree completion through online courses offered by Excelsior and courses offered by Excelsior Preferred Providers. For more information, access the course search feature for enrolled students at the Excelsior University website.

Policy on Second Degrees

Students who have earned an Excelsior University MBA cannot earn a second MBA from Excelsior University. Students who have earned an MBA degree from another institution will not be able to earn an additional MBA from Excelsior. In addition, students who have earned an MS Management from Excelsior, or another institution, can enroll in the Excelsior University MBA program, with a different concentration (General Business is not an option). Excelsior will determine if a student's concentration is substantially similar or different. A maximum of 15 credits from the first degree will be transferable.

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MASTER OF SCIENCE IN
CRIMINAL JUSTICE

30 CREDITS

DEGREE REQUIREMENTS

CORE COMPONENT

▶ IND 501 An Interdisciplinary Approach to Ethical Leadership

▶ IND 502 Strategic Talent Management in a Complex World

▶ IND 503 Data Driven Decision Making

▶ MCJ 518 Comparative Justice

▶ MCJ 522 The Pillars of Criminal Justice

▶ MCJ 530 Legal and Constitutional Issues

CONCENTRATION COMPONENT
Select one concentration from the following:

▶ Non-Concentration
Select nine (9) credits from the following: MCJ 630 Risk Assessment in Homeland Security, MCJ 650 Terrorism and Counterterrorism, MCJ 651 Overview: Homeland Security & Emergency Management, MCJ 652 Mental Health Issues in Criminal Justice, MCJ 660 Human Trafficking

▶ Cannabis Control
CBC 600 Implications of Legalization: Policy and Compliance, CBC 601 Complexities of Cannabis as Commerce, CBC 602 Risk Assessment in Cannabis Control

▶ Homeland Security And Emergency Management
MCJ 630 Risk Assessment in Homeland Security, MCJ 650 Terrorism and Counter Terrorism, MCJ 651 Overview: Homeland Security and Emergency Management

MCJ 698 Criminal Justice Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

Program Description

The Master of Science in Criminal Justice program prepares working adults to be leaders in criminal justice and or homeland security and emergency management. Graduates of this are able to apply their knowledge of criminology and crime causation theories to their workplace, organizations, and or communities. Core coursework for this program teaches students how to address legal and ethical dilemmas in the workplace, how to conduct valid research and analyze crime statistics, as well as develop effective crime-fighting strategies based on your findings. The program has students engaged in conducting criminal justice research projects where they write data-driven reports that can be used to create new or improved public policies. This program is built for students to learn it today and use it tomorrow. It culminates in a comprehensive capstone course in which students identify, research, and present resolutions to issues in their workplace, organization or community that demonstrate their competency in the field. We are proud to offer you the chance to learn from, network with, and study with experts in the fields of law, criminal justice and government.

The Master of Science in Criminal Justice requires 30 credits (semester hours) of interdisciplinary study in criminal justice divided between the core requirements and concentration. All students take 18 credits of core courses and a 3-credit capstone at the end of the program.

Program Outcomes

Students who complete the master's in criminal justice will be able to:

▶ Appraise a societal issue using criminal theory and policy through the lenses of the three pillars of criminal justice.

▶ Compare justice systems globally to apply best practices to bring societal order.

▶ Analyze a situation by interpreting data to make a decision or recommendation to resolve the situation.

▶ Interpret the constitution and legal implications as they apply to issues facing stakeholder in the criminal justice system.

▶ Apply interdisciplinary leadership practices based on evidence that promotes ethical and collaborative sustainable change in criminal justice

▶ Evaluate interdisciplinary approaches to problem solving and opportunities to lead a diverse/global workforce.

Master's Degree Requirements

Core Courses (18 credits)

These courses provide students with an overall education in criminal justice at the graduate level. Students may take these courses in any order, except for statistics and research methods. Students should successfully complete the statistics class before they can take research methods.

▶ Ethical Leadership (3 credits)
[**IND 501 An Interdisciplinary Approach to Ethical Leadership**]

IND 501 must be taken through Excelsior University and cannot be transferred in.

▶ Strategic Talent Management (3 credits)
[**IND 502 Strategic Talent Management in a Complex World**]

▶ Decision Making (3 credits)
[**IND 503 Data Driven Decision Making**]

▶ **MCJ 518 Comparative Justice**

▶ **MCJ 522 The Pillars of Criminal Justice**

▶ **MCJ 530 Legal & Constitutional Issues**

Concentrations

CANNABIS CONTROL

The growing cannabis industry is going to impact all aspects of our current societal process. The regulation of cannabis spans from growing, transportation, public health, and city services to new businesses, financing, and supply chains that cross jurisdictional lines. The concentration in Cannabis Control will give students a solid foundation in compliance, risk assessment and cannabis as commerce. Completing all three of these courses will also get you a graduate certificate in Cannabis Control on your way to completing your Master's Degree.

Required Subjects

▶ Policy and Compliance (3 credits)
[**CBC 600 Implications of Legalization: Policy and Compliance**]

▶ Commerce (3 credits)
[**CBC 601 Complexities of Cannabis as Commerce**]

▶ Risk Assessment (3 credits)
[**CBC 602 Risk Assessment in Cannabis Control**]

Outcomes for the Concentration

Students who complete the master's in criminal justice with a concentration in cannabis control will be able to:

1. Recommend strategies to ensure regulatory compliance in a rapidly evolving regulatory landscape.
2. Create workforce development and public health system responses to cannabis legalization that promote social equity.
3. Conduct risk assessment in communities where cannabis has been legalized.
4. Recommend strategies for ensuring consistent product quality and safe reliable supply chains at local, state, federal, and international levels.

HOMELAND SECURITY AND EMERGENCY MANAGEMENT CONCENTRATION

This concentration provides students with an in-depth understanding of homeland security and emergency management as they relate to criminal justice. Courses examine domestic and international issues and trends and their impact on criminal justice. Students who decide to complete this concentration will need to complete a minimum of 9 credits in this subject area.

Outcomes for the Concentration

Students who complete the master's in criminal justice with a concentration in homeland security will be able to:

1. Analyze and evaluate contemporary homeland security issues as they relate to criminal justice based on an understanding of the domestic and international processes affecting homeland security.
2. Construct an argument for the relationship between the current theories of emergency management and their practical application within the American Criminal Justice System.
3. Evaluate risks associated with human-caused, natural, and technological disasters through a myriad of risk management approaches, including best practices used by the homeland security enterprise.

Concentration Requirements (9 credits)

Students must complete 9 credits in their concentration.

Non-concentration (9 credits of the following)

▶ **MCJ 616 Corrections**
▶ **MCJ 618 Law Enforcement**
▶ **MCJ 626 Overview of Justice Administration**
▶ **MCJ 630 Risk Assessment in Homeland Security**
▶ **MCJ 640 Crisis Management in a Public Forum**
▶ **MCJ 650 Terrorism and Counterterrorism**

▶ **MCJ 651 Overview: Homeland Security & Emergency Management**

▶ **MCJ 652 Mental Health Issues in Criminal Justice**

▶ **MCJ 660 Human Trafficking**

▶ **ADR 672 Arbitration**

Homeland Security and Emergency Management
(9 credits of the following)

▶ **MCJ 650 Terrorism and Counter Terrorism**

▶ **MCJ 651 Overview: Homeland Security and Emergency Management**

▶ **MCJ 630 Risk Assessment in Homeland Security**

Capstone (3 credits)

The capstone course must be completed last, after all other program requirements have been met.

▶ **MCJ 698 Criminal Justice Capstone**

The capstone course is required. It must be taken through Excelsior University and cannot be transferred in.

Policies Specific to the Master of Science in Criminal Justice

Policies and procedures that apply specifically to the Master of Science in Criminal Justice program are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

Acceptance of Transfer Credit

Graduate-level coursework that has been completed within five years of the date of enrollment may be used to satisfy the requirements of the Master of Science in Criminal Justice program if approved by Excelsior University faculty. Students may transfer up to 15 credits. Excelsior will require a minimum grade of B- for any approved graduate course accepted for transfer credit. Excelsior University does not use pluses or minuses, so such grades will be converted to the full letter grade. To accept a course that is transferring in with a P grade, the Excelsior department/faculty member issuing the P grade must verify that it is equivalent to a B- or better.

Maximum Time to Complete

Students pursing the Master of Science in Criminal Justice have a maximum of five years from the date of enrollment to complete the program.

MASTER OF SCIENCE IN
CYBERSECURITY

30 CREDITS

DEGREE REQUIREMENTS

CORE REQUIREMENTS

- ▶ IND 501 An Interdisciplinary Approach to Ethical Leadership
- ▶ IND 502 Strategic Talent Management in a Complex World
- ▶ CYS 500 Foundations of Cybersecurity
- ▶ CYS 504 Network and Communication Security
- ▶ CYS 528 Legal and Compliance
- ▶ CYS 560 Information Assurance

CONCENTRATION REQUIREMENTS
One of the following concentrations must be declared:

- ▶ Non-Concentration
  Students must complete nine (9) credits from among the following courses:
  CYS 523 Software Applications and Security, CYS 526 Cyber Attacks and Defense, CYS 586 Digital Forensics and Investigations, CYS 565 Security Management Awareness, CYS 575 IT Risk Analysis and Management, CYS 577 Global Cybersecurity, CYS 610 Cloud and Data Security

- ▶ Information Assurance
  CYS 523 Software and Application Security, CYS 526 Cyber Attacks and Defense, CYS 586 Digital Forensics and Investigations

CYS 596 Cybersecurity Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

Program Description

The Master of Science in Cybersecurity is designed to enable students to pursue their career goals within critically important cybersecurity field. This program provides professionals with the techniques and knowledge to protect the organization's cyber assets by focusing on prevention, detection, countering, and recovering from cyber incidents. The curriculum focuses on aspects of cybersecurity, including strategies, policy, ethics and legal compliance, operational process, and technology to secure and defend an organization's cyber assets. This program is suited for professionals who aim to pursue senior-level technical or managerial positions in cybersecurity such as information security officer, cybersecurity manager, senior security analyst, security and compliance manager, director IT security and governance, digital crime investigator, or penetration tester.

Program (Student) Outcomes

Upon successful completion of the Excelsior University Master of Science in Cybersecurity program, the graduate will be able to:

1. Continuously monitor, maintain, and enhance the protection of enterprise-wide information assets through effective industry accepted information management and risk management techniques.

2. Detect, analyze, and respond to cyber-attacks on networks and computer systems.

3. Conduct risk and vulnerability assessments of existing and proposed information systems.

4. Utilize the best sources of information available related to cyber security issues, threats, and recovery.

5. Apply interdisciplinary leadership practices based on evidence that promote ethical, and collaborative sustainable change in cybersecurity.

6. Demonstrate proficiency in communicating technical information in formal reports, documentation, and oral presentations to users and information technology professionals.

7. Demonstrate a commitment to professional development and to continue to engage in lifelong learning.

8. Evaluate interdisciplinary approaches to problem solving and opportunities to lead a diverse/global workforce.

Degree Requirements

The Master of Science in Cybersecurity program requires a minimum of 30 graduate-level credits, with 10 required courses.

Required Subjects

▶ Ethical Leadership (3 credits) **[IND 501 An Interdisciplinary Approach to Ethical Leadership]**

IND 501 must be taken through Excelsior University and cannot be transferred in.

▶ Strategic Talent Management (3 credits) **[IND 502 Strategic Talent Management in a Complex World]**

▶ Foundations of Cybersecurity (3 credits) **[CYS 500 Foundations of Cybersecurity]**

▶ Network and Communication Security (3 credits) **[CYS 504 Network and Communication Security]**

▶ Legal and Compliance Issues (3 credits) **[CYS 528 Legal and Compliance]**

▶ Information Assurance (3 credits) **[CYS 560 Information Assurance]**

▶ Cybersecurity Capstone (3 credits) **[CYS 596 Cybersecurity Capstone]**

The capstone course is required. It must be taken through Excelsior University and cannot be transferred in.

MASTER OF SCIENCE IN CYBERSECURITY

Concentrations

NON-CONCENTRATION

The Non-Concentration option allows students to develop a personalized specialization that spans multiple cybersecurity concentrations. Student can tailor their concentration to their specific career goals, providing them with flexibility in developing their specialized knowledge and skills in cybersecurity.

Concentration Requirements

Nine (9) credits from among the following courses:

- ▶ **CYS 523 Software Applications and Security**
- ▶ **CYS 526 Cyber Attacks and Defense**
- ▶ **CYS 586 Digital Forensics and Investigations**
- ▶ **CYS 565 Security Management Awareness**
- ▶ **CYS 575 IT Risk Analysis and Management**
- ▶ **CYS 577 Global Cybersecurity**

INFORMATION ASSURANCE

The Information Assurance concentration is designed as a specialization for an individual who wishes to be hands-on while combating cybersecurity threats. The focus will be on software control management tools, software integration, cyber defense mitigation, and digital forensics. The three classes within this concentration will allow students to gain the needed knowledge of both hardware and software issues. Individuals who specialize in cyber operations will be prepared to be on the front line of defense for companies.

Concentration Outcomes

1. Develop a secure coding environment to maintain and protect source code for securing applications.

2. Recommend software appropriate for defending against cyber attacks.

3. Demonstrate knowledge of digital forensics and how it can be used to assist with an investigation.

Concentration Requirements

- ▶ **CYS 523 Software and Application Security** (3 credits)
- ▶ **CYS 526 Cyber Attacks and Defense** (3 credits)
- ▶ **CYS 586 Digital Forensics and Investigations** (3 credits)

Policies Specific to the Master of Science in Cybersecurity

Policies and procedures that apply specifically to the Master of Science in Cybersecurity program are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

Time Limit on Courses and Exams

Due to the rapidly changing nature of technology, Excelsior University has established a time-related restriction on the application of credits applied to the Master of Science in Cybersecurity. To meet this requirement, relevant coursework must have been completed more recently than 5 years prior to entrance into the Master of Science in Cybersecurity degree program. Please note that course content in these areas is subject to faculty approval. The time limit may be appealed by completing an appeal form which verifies appropriate and current professional and/or academic experience.

Maximum Time to Complete

Excelsior University degree programs are designed, within limits, to be completed at a student's own pace. However, students must make continuous progress toward their academic goals. Students will be dismissed if they do not complete the Master of Science in Cybersecurity at the conclusion of 5 years

from their entrance into the program. Students may seek an extension of the time limit by completing an appeal form, which will outline a plan for completion. Students must submit this appeal no less than one trimester before reaching the 5-year degree completion time limit.

Grade Point Average

Excelsior University requires an overall 3.0 cumulative GPA for completion of the Master of Science in Cybersecurity.

Acceptance of Transfer Credit

Graduate-level coursework that has been completed within five years of the date of enrollment may be used to satisfy the requirements of the Master of Science in Cybersecurity program if approved by Excelsior faculty. Students may transfer up to 15 credits. Excelsior will require a minimum grade of B- for any approved graduate course accepted for transfer credit. Excelsior University does not use pluses or minuses, so such grades will be converted to the full letter grade. To accept a course that is transferring in with a P grade, the Excelsior department/faculty member issuing the P grade must verify that it is equivalent to a B- or better.

MASTER OF SCIENCE IN
HUMAN RESOURCE MANAGEMENT
WITH AN EMPHASIS IN
DIVERSITY AND TECHNOLOGY

30
CREDITS

DEGREE REQUIREMENTS

FOUNDATION COMPONENT

▶ IND 501 An Interdisciplinary Approach to Ethical Leadership
This course must be taken at Excelsior University and cannot be transferred in.

▶ IND 502 Strategic Talent Management in a Complex World

▶ IND 503 Data Driven Decision Making

▶ BUS 501 Business Communications

▶ BUS 514 Employment Law

▶ BUS 517 Employee Staffing and Development

▶ BUS 553 Organizational Behavior

▶ BUS 561 Virtual Training and Development

▶ BUS 562 Virtual Team Management

BUS 697 Human Resource Management, Diversity and Technology Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

Program Description

The Master of Science in Human Resource Management with an Emphasis in Diversity and Technology program is structured using an interdisciplinary framework in keeping with research that suggests complex human management issues are interdisciplinary in nature, and human resource leaders must be knowledgeable about leading individuals and teams within an interdisciplinary environment. Human resource management is a multidisciplinary organizational function that draws research and theories from several fields of study, including management, psychology, and economics. This degree program integrates legal, management, and social science research with an action learning-based approach toward executive-level leadership education.

This graduate degree program emphasizes diversity and technology and will train students to lead strategically and decisively across all functions of human resources in organizations, including recruitment and selection, training and development, performance appraisals, health and safety, labor relations, and communications. Graduates are prepared to fulfill senior and executive positions in human resources in the private, public and non-for profits sectors. Our students will create value for their stakeholders and our society at large, all while leading organizations through complex challenges.

Program Outcomes

Upon completion of the Master of Science in Human Resource Management with an Emphasis in Diversity and Technology program, the graduate will be able to:

1. Analyze how different HR functional areas within a global business organization affect its strategic direction.
2. Utilize the challenges of managing a distributed workforce as an opportunity for increased and improved workforce communication and team building.
3. Apply legal and compliance issues in managing a distributive workforce.
4. Address the disparities in power, equity, and inclusion that are experienced and perpetuated in society.
5. Apply leadership practices based on evidence that promote ethical and collaborative sustainable change.
6. Justify decisions informed by ethical principles and disciplinary standards that address complex issues.
7. Develop evidence-informed innovative processes, practices, and/or solutions.
8. Confidently and professionally apply multiple methods of effective communication for diverse audiences.

Program Requirements (30 credits)

The Master of Science in Human Resource Management with Emphasis in Diversity and Technology requires a minimum of 30 graduate-level credits, with 10 required courses.

▶ Ethical Leadership (3 credits)
[IND 501 An Interdisciplinary Approach to Ethical Leadership]

IND 501 must be taken through Excelsior University and cannot be transferred in.

▶ Strategic Talent Management (3 credits)
[IND 502 Strategic Talent Management in a Complex World]
▶ Decision Making (3 credits)
[IND 503 Data Driven Decision Making]
▶ Business Communications (3 credits)
[BUS 501 Business Communications]
▶ Employment Law (3 credits)
[BUS 514 Employment Law]
▶ Staffing and Development (3 credits)
[BUS 517 Employee Staffing and Development]
▶ Organizational Behavior (3 credits)
[BUS 553 Organizational Behavior]
▶ Virtual Training and Development (3 credits)
[BUS 561 Virtual Training and Development]
▶ Virtual Team Management (3 credits)
[BUS 562 Virtual Team Management]

▶ Management, Diversity and Technology Capstone (3 credits)
[**BUS 697 Human Resource Management, Diversity and Technology Capstone**]

The capstone course is required. It must be taken through Excelsior University and cannot be transferred in.

Policies Specific to the MS in Human Resource Management with an Emphasis in Diversity and Technology

Policies and procedures that apply specifically to the MS in Human Resource Management with an Emphasis in Diversity and Technology program are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

Acceptance of Transfer Credit

Graduate-level coursework that has been completed within five years of the date of enrollment may be used to satisfy the requirements of the MS in Human Resource Management with an Emphasis in Diversity and Technology program if approved by Excelsior University. Students may transfer up to 15 credits. Excelsior will require a minimum grade of B- for any approved graduate course accepted for transfer. Excelsior does not use plus (+) or minus (-), so such grades will be converted to the full letter grade. To accept a course that is transferring in with a P grade, the Excelsior department\faculty member issuing the P grade must verify that it is equivalent to a B- or better.

Maximum Time to Complete the MS in Human Resource Management with an Emphasis in Diversity and Technology

Students pursing the MS in Human Resource Management with an Emphasis in Diversity and Technology have a maximum of five years from the date of enrollment to complete the program.

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MASTER OF SCIENCE IN
MANAGEMENT

30
CREDITS

DEGREE REQUIREMENTS

CORE COMPONENT

▶ IND 501 An Interdisciplinary Approach to Ethical Leadership

▶ IND 502 Strategic Talent Management in a Complex World

▶ BUS 501 Business Communication

▶ BUS 502 Global Business Environments

▶ BUS 530 Project Management Principles and Application

▶ BUS 553 Organizational Behavior

CONCENTRATION COMPONENT
One of the following concentrations must be declared:

▶ General Business Management
  Management electives (choose three).

▶ Human Resource Management
  Choose one elective from each of the following categories:
  Staffing and Development, Total Rewards, Maintaining High Performance

▶ Organizational Leadership
  BUS 552 Leadership, BUS 554 Change Management, BUS 671 Mediation

BUS 698 Management Strategies Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

Program Description

The Master of Science in Management is a 30-semester-hour professional degree intended for those who desire to advance their career in the business, nonprofit, military, or government sector. This interdisciplinary program focuses on leadership, organizational behavior, change management, global business environment, and conflict management to enable the participant to build a strong foundation to qualify for an organizational leadership or management role. The program integrates theory, case study, and practice to prepare the participant to grow both their personal and organizational leadership and motivational abilities. Progressive and growing organizations are in constant demand of candidates who possess advanced leadership and project management knowledge and skills obtainable through Excelsior University's Master of Science in Management.

Consistent with Excelsior University's mission to provide academic opportunities that overcome barriers of time, distance, and cost, the MS in Management program allows students to transfer up to 15 credits from outside sources. Excelsior offers online courses to fulfill all core requirements for the degree. Upon admission to the program, each candidate receives an individualized evaluation that indicates which courses the candidate must complete to qualify for the degree.

The Excelsior University Master of Science in Management is the flexible, accessible, and relevant option for adults who want to enhance their career options and obtain a first-rate graduate education while maintaining family, work, and community obligations.

Specialized Accreditation/Recognition: *The Master of Science in Management is accredited by the International Accreditation Council for Business Education (IACBE), 11374 Strang Line Rd., Lenexa, KS 66215.*

Program Educational Objectives

As an Excelsior University master's-level business graduate, within a few years of graduation, you are expected to:

1. Design, implement, and evaluate the efficacy of solutions for complex business problems.
2. Engage in life-long learning for professional, career, and personal development.
3. Lead and work effectively and efficiently in diverse team settings and maintain a high level of performance in a professional business environment.
4. Communicate effectively and efficiently to various audiences in a timely and professional manner.
5. Demonstrate leadership and initiative to ethically advance organizational goals and objectives.
6. Demonstrate adaptability, leadership, mentoring skills, and management in one's chosen career.

Program Outcomes

Upon successful completion of the Excelsior University Master of Science in Management program, the graduate will be able to:

1. Apply interdisciplinary leadership practices based on evidence that promotes ethical, and collaborative sustainable change in business.
2. Evaluate different methods and strategies used to develop individuals and manage teams in multiple settings.
3. Analyze how different functional areas within a global business organization affect its strategic direction.
4. Apply project management tools and techniques in a business environment.
5. Create sustained and coherent arguments to summarize work for both internal (e.g., management, peers, subordinates) and external audiences.
6. Apply interdisciplinary leadership practices based on evidence that promotes ethical, and collaborative sustainable change in business.
7. Generate solutions to business problems through the use of information technologies.
8. Integrate theory and practice for the purpose of strategic analysis.
9. Evaluate individual strengths and weaknesses with the desire to update skills and continuously improve.

Degree Requirements

The Master of Science in Management requires a minimum of 30 graduate-level credits, with 10 required courses.

Core Courses

▶ Ethical Leadership (3 credits)
  [IND 501 An Interdisciplinary Approach to Ethical Leadership]

IND 501 must be taken through Excelsior University and cannot be transferred in.

▶ Strategic Talent Management (3 credits)
  [IND 502 Strategic Talent Management in a Complex World]
▶ Organizational Communication (3 credits)
  [BUS 501 Business Communication]
▶ Managing Global Environments (3 credits)
  [BUS 502 Global Business Environments]
▶ Project Management (3 credits)
  [BUS 530 Project Management Principles and Application]
▶ Organizational Behavior (3 credits)
  [BUS 553 Organizational Behavior]
▶ Strategy and Policy (capstone) (3 credits)
  [BUS 698 Management Strategies Capstone]

The capstone course is required. It must be taken through Excelsior University and cannot be transferred in.

Concentration/Options

Students round out the Master of Science in Management by selecting a concentration or option. Courses from other Excelsior University master's programs may apply here. Contact your academic advisor for more information.

HUMAN RESOURCE MANAGEMENT

The Human Resource Management concentration provides students with the knowledge and skills required of human resource managers who deal with human capital issues, challenges, and opportunities on a daily basis. The students are expected to effectively apply contemporary theories and applications to successfully perform several key functions in human resource management, including staffing, employee development, labor relations, conflict resolutions, compensation, and benefits.

Concentration Outcomes

Upon completion of an Excelsior University Master of Science in Management with a Human Resource Management concentration, the graduate will be able to:

1. Analyze the legal requirements applicable to human resource decisions.

2. Apply human resource management principles to support organizational objectives.

Required Subjects

Students must select one course from each of the following required categories:

▶ Staffing and Development (3 credits each)
  [BUS 517 Employee Staffing and Development, BUS 554 Change Management]
▶ Total Rewards (3 credits each)
  [BUS 512 Compensation and Benefits, BUS 513 International Human Resources, BUS 514 Employment Law]
▶ Maintaining High Performance (3 credits each)
  [BUS 515 Labor Relations and Conflict Resolution, BUS 555 Principles and Practices of Performance Improvement, BUS 670 Conflict Management and Alternative Dispute Resolutions]

ORGANIZATIONAL LEADERSHIP

The Organizational Leadership concentration is designed to recognize the unique competencies that today's leaders have gained, while overcoming the complexities within their organizations. These innovative characteristics should be recognized by earning a master's degree associated with the leadership aspects within their careers. This program is tailored toward managers desiring to become successful leaders within an organization that demands creativity and innovation to gain success. Each of these individuals is being challenged every day to design creative solutions and develop complex courses of action with direct impacts to the organization's employees and mission. The Organizational Leadership concentration is designed to prepare each manager for the multifaceted complexities they will face today and in the future as a leader. A graduate of this program will be able to successfully serve at a senior-level position within one's respective organization and can be routinely called upon as an expert in one's field. This concentration meets the needs of experienced managers who have completed a baccalaureate degree and strive for additional academic rigor to gain a leadership master's degree. It will be especially suited for Excelsior University baccalaureate degree graduates who wish to continue graduate studies with Excelsior.

Concentration Outcomes

Upon completion of an Excelsior University Master of Science in Management with an Organizational Leadership concentration, the graduate will be able to:

1. Discuss key issues and challenges associated with managing organizational changes.
2. Apply leadership strategies to manage conflicts in the workplace.

Required Subjects

▶ Mediation
   [BUS 671 Mediation]
▶ Leadership
   [BUS 552 Leadership]
▶ Change Management
   [BUS 554 Change Management]

GENERAL BUSINESS MANAGEMENT OPTION

The General Business option is designed for students seeking more flexibility in their degree program. Selecting the this concentration allows students to choose three business electives that span multiple discipline areas in the field business management, helping students tailor a program and develop broad-based skills.

Required Subjects

▶ 9 credits in management elective

Policies Specific to the MSM

Policies and procedures that apply specifically to the MSM program are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

Maximum Time to Complete the Master of Science in Management Program

Students pursuing the Master of Science in Management have a maximum of five years to complete the program from the date of enrollment.

Acceptance of Transfer Credit

Graduate-level coursework that has been completed within five years of the date of enrollment may be used to satisfy the requirements of the MSM program if approved by Excelsior University faculty. Students may transfer up to 15 credits. Excelsior will required a minimum grade of B- for any approved graduate course accepted for transfer credit. Excelsior University does not use pluses or minuses, so such grades will be converted to the full letter grade. To accept a course that is transferring in with a P grade, the Excelsior department\faculty member issuing the P grade must verify that it is equivalent to a B- or better.

MASTER OF SCIENCE IN
ORGANIZATIONAL LEADERSHIP
WITH AN EMPHASIS IN
TECHNOLOGY AND DATA ANALYTICS

30
CREDITS

DEGREE REQUIREMENTS

FOUNDATION COMPONENT

▶ IND 501 An Interdisciplinary Approach to Ethical Leadership
This course must be taken at Excelsior University and cannot be transferred in.

▶ IND 502 Strategic Talent Management in a Complex World

▶ IND 503 Data Driven Decision Making

▶ CYS 500 Foundations of Cyber Security

▶ BUS 530 Project Management

▶ BUS 540 Strategic Management of Innovative Technology

▶ BUS 553 Organizational Behavior

▶ BUS 563 Data Analytics

▶ BUS 564 Big Data and Visualization

BUS 696 Organizational Leadership, Technology and Analytics Capstone
The Capstone course must be taken at Excelsior University and cannot be transferred in.

Program Description

The Master of Science in Organizational Leadership with an Emphasis in Technology and Data Analytics program provides students with the skills required to address the emerging need for leaders to incorporate technology within all aspects of the modern organization to solve the challenges facing leaders today. The program emphasizes technology and data analytics, and graduates of this degree program are equipped to effectively lead organizations through the technology and data-driven transformations rapidly occurring in the workforce. The program is structured using an interdisciplinary framework, which is based upon the recognition that complex challenges are interdisciplinary in nature and successful leadership within the 21st century requires a firm grasp leading across sectors. The primary challenges impacting organizations today are COVID-19 and the economic downturn, which have exponentially increased the need for innovation, and the importance of big data and analytics to drive strategy.

Program Outcomes

Upon successful completion of the Master of Science in Organizational Leadership with an Emphasis in Technology and Data and Analytics, the graduate will be able to:

1. Apply interdisciplinary leadership practices that promote ethical and collaborative change within the workforce.

2. Evaluate interdisciplinary approaches to problem solving and opportunities to lead a diverse/global workforce.

3. Analyze organizational behavior, culture, and human resources management information to generate strategic decision-making and initiate sustainable change.

4. Implement project and process management techniques to manage teams and innovative projects.

5. Utilize data analytics, big data, and visualizations to communicate effectively with stakeholders throughout the organization.

Program Requirements (30 credits)

The Master of Science in Organizational Leadership with an Emphasis in Technology and Data Analytics requires a minimum of 30 graduate-level credits, with 10 required courses.

▶ Ethical Leadership (3 credits)
   [IND 501 An Interdisciplinary Approach to Ethical Leadership]

IND 501 must be taken through Excelsior University and cannot be transferred in.

▶ Strategic Talent Management (3 credits)
   [IND 502 Strategic Talent Management in a Complex World]

▶ Decision Making (3 credits)
   [IND 503 Data Driven Decision Making]

▶ Foundations of Cyber Security (3 credits)
   [CYS 500 Foundations of Cyber Security]

▶ Project Management (3 credits)
   [BUS 530 Project Management]

▶ Strategic Management of Innovative Technology (3 credits)
   [BUS 540 Strategic Management of Innovative Technology]

▶ Organizational Behavior (3 credits)
   [BUS 553 Organizational Behavior]

▶ Data Analytics (3 credits)
   [BUS 563 Data Analytics]

▶ Data and Visualization (3 credits)
   [BUS 564 Big Data and Visualization]

▶ Organizational Leadership, Technology and Analytics Capstone (3 credits)
   [BUS 696 Organizational Leadership, Technology and Analytics Capstone]

The capstone course is required. It must be taken through Excelsior University and cannot be transferred in.

Policies Specific to the MS in Organizational Leadership with an Emphasis in Technology and Data Analytics

Policies and procedures that apply specifically to the MS in Organizational Leadership with an Emphasis in Technology and Data Analytics are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

Acceptance of Transfer Credit

Graduate-level coursework that has been completed within five years of the date of enrollment may be used to satisfy the requirements of the MS in Organizational Leadership with an Emphasis in Technology and Data Analytics program if approved by Excelsior University. Students may transfer up to 15 credits. Excelsior will require a minimum grade of B- for any approved graduate course accepted for transfer. Excelsior does not use plus (+) or minus (-), so such grades will be converted to the full letter grade. To accept a course that is transferring in with a P grade, the Excelsior department\faculty member issuing the P grade must verify that it is equivalent to a B- or better.

Maximum Time to Complete the MS in Organizational Leadership with an Emphasis in Technology and Data Analytics

Students pursuing the MS in Organization Leadership with an Emphasis in Technology and Data Analytics have a maximum of five years from the date of enrollment to complete the program.

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MASTER OF
PUBLIC ADMINISTRATION

30 CREDITS

DEGREE REQUIREMENTS

CORE COMPONENT

▶ IND 501 An Interdisciplinary Approach to Ethical Leadership

▶ IND 502 Strategic Talent Management in a Complex World

▶ IND 503 Data Driven Decision Making

▶ MPA 500 Introduction to Public Administration Theory & Practice

▶ MPA 502 Public Management in a Political Environment

▶ MPA 511 Public Budgeting and Financial Management

CONCENTRATION REQUIREMENTS
One of the following concentrations must be declared:

▶ General Concentration
Select nine (9) credits from the following:
ADR 671 Mediation, BUS 501 Business Communications, BUS 515 Labor Relations and Conflict Resolution, BUS 516 Communication Strategy For The Health Care Leader, BUS 552 Leadership, BUS 554 Change Management, MCJ 622 Grant Writing, MCJ 651 Overview Of Homeland Security and Emergency Management, MPA 651 Contemporary Issues in Nonprofit Management, PBH 609 Critical Issues in Public Health

▶ Cannabis Control
CBC 600 Implications of Legalization: Policy and Compliance, CBC 601 Complexities of Cannabis as Commerce, CBC 602 Risk Assessment in Cannabis Control

MPA 698 Capstone in Public Administration
The Capstone course must be taken at Excelsior University and cannot be transferred in.

Program Description

The Master of Public Administration (MPA) program is designed to teach students the fundamentals of working in the public and nonprofit sectors. Focusing on management and administration, the courses provide students with an understanding of leadership development, nonprofit management, personnel and talent management, economics, data driven decision-making, strategic management, and technology management. Developing ethical leaders in government and nonprofit sectors is a major focus of the MPA. Students come from a variety of backgrounds, including management, political science, psychology, sociology, economics, and health care. They must have a desire to serve their communities through their nonprofit or public sector careers.

The degree helps students develop analytical, decision-making, and leadership skills and prepares them for leadership positions in government and nonprofit organizations. The program is an innovative, online, applied graduate program that produces public service leaders who are skilled, ethical, act as key influencers, and work toward the well-being of society.

Program Outcomes

A graduate of the program will be able to:

1. Interpret and analyze data to formulate and influence decision-making.
2. Evaluate financial data and budgets to make sound fiscal decisions for the public sector.
3. Assess the use of technology to assist in solving complex problems and optimizing resources in the public sector.
4. Apply interdisciplinary leadership practices based on evidence that promotes ethical, and collaborative sustainable change in the public sector.
5. Evaluate interdisciplinary approaches to problem solving and opportunities to lead a diverse/global workforce.
6. Apply effective communication techniques to address issues and multiple paths for solutions.

Degree Requirements

The Master of Public Administration (MPA) program requires 30 credits (semester hours) of interdisciplinary study. All students take 18 credits of core courses, which provide students with graduate-level understanding of public administration. Students must also complete 9 credits of elective or concentration courses and a 3-credit capstone course at the end of the program.

Core Courses (18 credits)

These courses provide students with an overall education in public administration at the graduate level.

▶ Ethical Leadership (3 credits)
   [IND 501 An Interdisciplinary Approach to Ethical Leadership]

IND 501 must be taken through Excelsior University and cannot be transferred in.

▶ Strategic Talent Management (3 credits)
   [IND 502 Strategic Talent Management in a Complex World]
▶ Decision Making (3 credits)
   [IND 503 Data Driven Decision Making]
▶ Public Administration (3 credits)
   [MPA 500 Introduction to Public Administration Theory and Practice]
▶ Public Management (3 credits)
   [MPA 502 Public Management in a Political Environment]
▶ Public Budgeting (3 credits)
   [MPA 511 Public Budgeting and Financial Management]

MASTER OF PUBLIC ADMINISTRATION

Concentration Requirements
(9 credits required)

Students can either opt for a General Concentration option or a concentration in Cannabis Control.

Capstone (3 credits)

The capstone can only be taken when all other requirements for the MPA are completed.

▶ **MPA 698 Capstone in Public Administration**

The capstone course is required. It must be taken through Excelsior University and cannot be transferred in.

Concentrations

CANNABIS CONTROL

The growing cannabis industry is going to impact all aspects of our current societal process. The regulation of cannabis spans from growing, transportation, public health, and city services to new businesses, financing, and supply chains that cross jurisdictional lines. The concentration in Cannabis Control will give students a solid foundation in compliance, risk assessment and cannabis as commerce. Completing all three of these courses will also get you a graduate certificate in Cannabis Control on your way to completing your Master's Degree.

Required Subjects

▶ Policy and Compliance (3 credits)
[CBC 600 Implications of Legalization: Policy and Compliance]
▶ Commerce (3 credits)
[CBC 601 Complexities of Cannabis as Commerce]
▶ Risk Assessment (3 credits)
[CBC 602 Risk Assessment in Cannabis Control]

Policies Specific to the Master of Public Administration

Policies and procedures that apply specifically to the Master of Public Administration program are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

Maximum Time to Complete

Students pursing the MPA have a maximum of five years from the date of enrollment to complete the program.

Acceptance of Transfer Credit

Graduate-level coursework that has been completed within five years of the date of enrollment may be used to satisfy the requirements of the MPA program if approved by Excelsior University faculty. Students may transfer up to 15 credits. Excelsior will require a minimum grade of B- for any approved graduate course accepted for transfer credit. Excelsior University does not use pluses or minuses, so such grades will be converted to the full letter grade. To accept a course that is transferring in with a P grade, the Excelsior department/faculty member issuing the P grade must verify that it is equivalent to a B- or better.

Students are subject to the degree requirements in effect at the time of their enrollment or program/degree transfer (program transfer refers to change from one school to another; degree transfer refers to changing degrees within the same school).

The faculty reserves the right to make changes in curricular requirements as necessary to reflect current professional practice. Changes may affect both matriculated and prospective students. It is the students' responsibility to keep informed of such changes. The school will make every effort to inform students of changes as they occur. Current information about degree requirements is posted on the website. Information about changes to degree requirements is also made available on the website.

COLLEGE OF LIBERAL ARTS AND SCIENCES
GRADUATE CERTIFICATES

Refer to the **Excelsior University College of Nursing and Health Sciences Catalog** for certificates in those areas.

GRADUATE CERTIFICATE IN
ADVANCED PROJECT MANAGEMENT

9 CREDITS

Certificate Description

The Graduate Certificate in Advanced Project Management will provide students with the opportunity to hone their project management and information technology skills from a leadership perspective. Students will manage a technology implementation project from start to finish, evaluating project risks and methods to control for those risks, and hone their leadership skills across the three certificate courses.

Certificate Requirements

- ▶ **BUS 552 Leadership** (3 credits)
- ▶ **BUS 530 Project Management OR BUS 572 Technology and Project Management** (3 credits)
- ▶ **BUS 570 Information Technology** (3 credits)

Certificate Outcomes

A graduate of the program will be able to:

1. Manage IT-related projects from planning through delivery

2. Evaluate project risks and opportunities to ensure organization needs are met.

3. Apply leadership techniques to build collaborative teams for successful project completion.

Policies Specific to the Graduate Certificate in Advanced Project Management

Policies and procedures that apply specifically to the Graduate Certificate in Advanced Project Management are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

- ▶ **Admission Eligibility**
  Students must have an earned bachelor's degree for admittance in the certificate program.

- ▶ **Acceptance of Transfer Credit**
  Students must complete all Advanced Project Management certificate courses at Excelsior University—no credits will be transferred in to meet the requirements.

- ▶ **Maximum Time to Complete the Certificate**
  Students pursuing the Graduate Certificate in Advanced Project Management have two years from the date of enrollment to complete all requirements.

- ▶ **Minimum GPA for Graduation**
  A cumulative grade point average (GPA) of 3.0 is required to graduate.

GRADUATE CERTIFICATE IN
CANNABIS CONTROL

Certificate Description

The Graduate Certificate in Cannabis Control prepares students with the skills and the knowledge base to understand the impacts of legalization of cannabis in our communities, states, and nation. The curriculum incorporates best-practice instructional techniques—including realistic case studies—to foster strong critical thinking skills that will enable students to keep pace with the fast-changing environment. Innovative courses that meld industry and practitioner-based readings with scientific-based research enable the program to offer much-needed subject matter expertise in the field.

Certificate Requirements

▶ **CBC 600 Implications of Legalization of Cannabis: Policy and Compliance** (3 credits)
▶ **CBC 601 Complexities of Cannabis as Commerce** (3 credits)
▶ **CBC 602 Risk Assessment in Cannabis Control** (3 credits)

Certificate Outcomes

A graduate of the program will be able to:

1. Recommend strategies to ensure regulatory compliance in a rapidly evolving regulatory landscape.
2. Create workforce development and public health system responses to cannabis legalization that promote social equity.
3. Conduct risk assessment in communities where cannabis has been legalized.
4. Recommend strategies for ensuring consistent product quality and safe reliable supply chains at local, state, federal, and international levels.

Policies Specific to the Graduate Certificate in Cannabis Control

Policies and procedures that apply specifically to the Graduate Certificate in Cannabis Control are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

▶ **Admission Eligibility**
Students must have earned a bachelor's degree for admittance into the certificate program.

▶ **Acceptance of Transfer Credit**
Students must complete all Cannabis Control certificate courses at Excelsior University—no credits will be transferred in to meet the requirements.

▶ **Maximum Time to Complete the Certificate**
Students pursuing the Graduate Certificate in Cannabis Control have two years from the date of enrollment to complete all requirements.

▶ **Minimum GPA for Graduation**
A cumulative grade point average (GPA) of 3.0 is required to graduate.

GRADUATE CERTIFICATE IN
CYBERSECURITY OPERATIONS

9
CREDITS

Certificate Description

The Graduate Certificate in Cyber Operations is designed as a specialization for an individual who wishes to be hands-on while combating cybersecurity threats and conducting risk analysis. The focus will be on threat detection and incident response, information assurance, as well as cyber defense mitigation. The three classes within this concentration will allow students to gain the needed knowledge to utilize devices, computer programs, and techniques that are designed to maintain a secure environment that will affect all aspects of cyberspace. Individuals who specialize in cyber operations will be prepared to be on the front line of defense for companies.

Certificate Requirements

- ▶ **CYS 560 Information Assurance** (3 credits)
- ▶ **CYS 575 IT Risk Analysis and Management** (3 credits)
- ▶ **CYS 526 Cyber Attacks and Defense** (3 credits)

Certificate Outcomes

A graduate of the program will be able to:

1. Apply risk analysis methodologies to identify potential vulnerabilities, associated impacts, and recommend appropriate responses.
2. Apply appropriate protocols, tools, and techniques to maximize security in the network environment.
3. Construct cybersecurity strategies that use information technology to measurably improve cybersecurity performance.

Policies Specific to the Graduate Certificate in Cybersecurity Operations

Policies and procedures that apply specifically to the Graduate Certificate in Cybersecurity Operations are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

- ▶ **Admission Eligibility**
  Students must have an earned bachelor's degree for admittance in the certificate program.
- ▶ **Acceptance of Transfer Credit**
  Students must complete all certificate courses at Excelsior University—no credits will be transferred in to meet the requirements.
- ▶ **Maximum Time to Complete the Certificate**
  Students pursuing the Graduate Certificate in Cybersecurity Operations have two years from the date of enrollment to complete all requirements.
- ▶ **Minimum GPA for Graduation**
  A cumulative grade point average (GPA) of 3.0 is required to graduate.

GRADUATE CERTIFICATE IN
DATA ANALYTICS

Certificate Description

The Graduate Certificate in Data Analytics enhances students' analytical abilities and equips them with the skills to uncover new insights that improve strategic business decisions. Through this program, students learn how to collect, analyze and visually represent rich sets of data designed to improve organizational decision making.

Certificate Requirements

▶ **BUS 540 Strategic Management of Innovative Technology** (3 credits)
▶ **BUS 563 Data Analytics** (3 credits)
▶ **BUS 564 Big Data and Visualization** (3 credits)

Certificate Outcomes

A graduate of the program will be able to:

1. Formulate technology innovation strategies to communicate strategic data driven business recommendations to stakeholders.
2. Use data analytics and visualization to improve, illustrate, and monitor organizational performance, while furthering the vision.

Policies Specific to the Graduate Certificate in Data Analytics

Policies and procedures that apply specifically to the Graduate Certificate in Data Analytics are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

▶ **Admission Eligibility**
Students must have earned a bachelor's degree for admittance into the certificate program.

▶ **Acceptance of Transfer Credit**
Students must complete all Data Analytics certificate courses at Excelsior University—no credits will be transferred in to meet the requirements.

▶ **Maximum Time to Complete the Certificate**
Students pursuing the Graduate Certificate in Data Analytics have two years from the date of enrollment to complete all requirements.

▶ **Minimum GPA for Graduation**
A cumulative grade point average (GPA) of 3.0 is required to graduate.

GRADUATE CERTIFICATE IN
DISTRIBUTED WORKFORCE MANAGEMENT

Certificate Description

The Graduate Certificate in Distributed Workforce Management will train students to strategically lead decisively across all functions in organizations, including recruitment and selection, training and development, performance appraisals, health and safety, labor relations, and communications. Graduates will be prepared to fulfill senior and executive positions in the private, public and the nonprofit sectors. Students will create value for the organizations and communities they serve by solving the complex challenges related to managing within a distributed work environment.

Certificate Requirements

- **BUS 553 Organizational Behavior** (3 credits)
- **BUS 561 Virtual Training and Development** (3 credits)
- **BUS 562 Virtual Team Management** (3 credits)

Certificate Outcomes

A graduate of the program will be able to:

1. Emphasize research as vital in both academic and applied settings.
2. Collaborate on projects and case analyses with peers while incorporating feedback from outside sources.
3. Focus the application of distributed workforce in a variety of organizations, including health care and nonprofits.
4. Apply managerial skills to help them begin as well as advance their career in distributed workforces.
5. Integrate diversity, equity, and inclusion into content and andragogy on distributed workforce management.
6. Shape corporate policy, organizational change, and transformation as a consequence of distributed work.

Policies Specific to the Graduate Certificate in Distributed Workforce Management

Policies and procedures that apply specifically to the Graduate Certificate in Distributed Workforce Management are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

- **Admission Eligibility**
  Students must have earned a bachelor's degree for admittance into the certificate program.
- **Acceptance of Transfer Credit**
  Students must complete all Distributed Workforce Management certificate courses at Excelsior University—no credits will be transferred in to meet the requirements.
- **Maximum Time to Complete the Certificate**
  Students pursuing the Graduate Certificate in Distributed Workforce Management have two years from the date of enrollment to complete all requirements.
- **Minimum GPA for Graduation**
  A cumulative grade point average (GPA) of 3.0 is required to graduate.

HOMELAND SECURITY AND EMERGENCY MANAGEMENT

9
CREDITS

Certificate Description

Few areas of public safety generate broad and intense interest as matters of homeland security and emergency management. Ensuring the safety and security of a nation's homeland—its infrastructure, its institutions, its economy, and most importantly, its people—is a prerequisite for success in all other aspects of societal life. This certificate program will have students learning about threats posed by domestic and international terrorism and strategies for countering those threats. Additionally, students will evaluate the best practices behind successful security planning and create threat assessments. Finally, students will evaluate and develop emergency and disaster plans that can and should be employed in the face of both man-made and natural threats to the homeland.

Certificate Requirements

▶ **MCJ 630 Risk Assessment in Homeland Security and Emergency Management** (3 credits)
▶ **MCJ 651 Overview: Homeland Security and Emergency Management** (3 credits)
▶ **MCJ 650 Terrorism and Counterterrorism** (3 credits)

Certificate Outcomes

A graduate of the program will be able to:

1. Analyze and evaluate contemporary homeland security issues as they relate to criminal justice based on an understanding of the domestic and international processes affecting homeland security.
2. Construct an argument for the relationship between the current theories of emergency management and their practical application within the American Criminal Justice System.
3. Evaluate risks associated with human-caused, natural, and technological disasters through a myriad of risk management approaches, including best practices used by the homeland security enterprise.

Policies Specific to the Graduate Certificate in Homeland Security and Emergency Management

Policies and procedures that apply specifically to the Graduate Certificate in Homeland Security and Emergency Management are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

▶ **Admission Eligibility**
Students must have an earned bachelor's degree for admittance in the certificate program.

▶ **Acceptance of Transfer Credit**
Students must complete all certificate courses at Excelsior University—no credits will be transferred in to meet the requirements.

▶ **Maximum Time to Complete the Certificate**
Students pursuing the Graduate Certificate in Homeland Security and Emergency Management have two years from the date of enrollment to complete all requirements.

▶ **Minimum GPA for Graduation**
A cumulative grade point average (GPA) of 3.0 is required to graduate.

GRADUATE CERTIFICATE IN
LEADERSHIP

<div style="text-align: right;">**12** CREDITS</div>

Certificate Description

The Graduate Certificate in Leadership helps new and aspiring leaders to develop a versatile set of leadership skills and inspire high-performing teams in a complex world. Through an interdisciplinary approach, students learn about applied leadership theory, strategic talent management, and driving team performance.

Certificate Requirements

- **IND 501 An Interdisciplinary Approach to Ethical Leadership** (3 credits)
- **IND 502 Strategic Talent Management in a Complex World** (3 credits)
- **IND 522 Leading High Performing Teams** (3 credits)
- **Elective—Select one:**
  - **IND 503 Data Driven Decision Making** (3 credits)
  - **HSC 516 Communication Strategy for the Health Care Leader** (3 credits)
  - **PBH 592 Biostatistics** (3 credits)
  - **MPA 502 Public Management in a Political Environment** (3 credits)

Certificate Outcomes

A graduate of the program will be able to:

1. Use leadership theory and data-driven decision-making to cultivate equitable, inclusive organizations.
2. Apply ethical principles in leading teams and influencing sustainable change.
3. Collaborate within and across disciplines and stakeholder groups to lead change initiatives.

Policies Specific to the Graduate Certificate in Leadership

Policies and procedures that apply specifically to the Graduate Certificate in Leadership are listed in the following section. All policies can be found in their entirety within the student policy section of the Excelsior University website.

- **Admission Eligibility**
  Students must have an earned bachelor's degree for admittance in the certificate program.

- **Acceptance of Transfer Credit**
  Students must complete all certificate courses at Excelsior University—no credits will be transferred in to meet the requirements.

- **Maximum Time to Complete the Certificate**
  Students pursuing the Graduate Certificate in Leadership have two years from the date of enrollment to complete all requirements.

- **Minimum GPA for Graduation**
  A cumulative grade point average (GPA) of 3.0 is required to graduate.

COLLEGE OF LIBERAL ARTS AND SCIENCES
GRADUATE COURSES

ACC 500 Accounting for Managers   3 credits

This course is intended to help the student understand how to analyze a company's basic financial statements and annual report. By the end of the course, you should be familiar with the four basic financial statements, some of the key accounts on the balance sheet as well as the overall accounting cycle. As a manager, you should be able to effectively analyze a company's financial statements and annual report. Additionally, managers should be able to conclude on a company's profitability, efficiency, liquidity and solvency.

ACC 504 Corporate Financial Reporting and Disclosure   3 credits

The course will cover an in depth examination of financial report disclosures, with an emphasis on how firms use financial reporting to achieve such ends as managing earnings or keeping debt off of the balance sheet. By the end of the course, students will have an appreciation for what information is missing from the primary financial statements, the knowledge to understand the content of important footnotes, and the tools to conduct financial analyses using the information contained therein. The course will use a combination of textbook problems, case studies, and most importantly, actual financial report disclosures. The course is geared for students going into public accounting, investment banking, equity research, or consulting.

ACC 505 Financial Statement Analysis 3 credits

Are you interested in following economic and industry trends as it relates to company performance, analyzing financial statements in light of company strategy and external factors, building financial models to value a company and writing investment recommendations? If so, you will find this course interesting and useful. This course starts with an overview of financial reporting and ends with various approaches to valuation including cash flow, earnings, and market based methods. The core of this course is about

gathering, analyzing, and using information to make informed decisions. While there is certainly no one set approach to financial statement analysis and valuation, one popular method is to use a top down valuation approach, which is what will be focused on in the course.

ACC 515 Accounting for Government and Non-for-Profit organizations   3 credits

This course is designed to provide a comprehensive overview of the accounting, managerial, auditing, fiduciary, financial reporting, and regulatory issues related to Government and Not-for-Profit organizations. It builds on the concepts, principles, and processes shared within BUS 500 Managerial Accounting and ACC 510 Financial Reporting and Disclosure.

ADR 670 Conflict Management and Alternative Dispute Resolution   3 credits

This course provides an introduction to the human resource field of conflict management and alternative dispute resolution through case analyses. You will examine the major causes of conflict, the effects of personality and perception on conflict, and recommended strategies to manage the conflict in organizations. Learn about your own styles for managing conflict and develop competency in interaction with other styles.

Cross-listed with BUS 670.

ADR 671 Mediation   3 credits

The ability to work toward a consensus and reduce potential conflicts in a variety of contexts is of utmost importance in today's society. This course provides an overview of mediation processes. You will learn a variety of communication and negotiation skills in order to settle disputes outside of a courtroom setting. Working collaboratively, you will also create an operations plan for a mediation center, and make recommendations about the type of center for your assigned state.

Cross-listed with BUS 671.

BUS 500 Accounting for Managers   3 credits

This course is intended to help the student understand how to analyze a company's basic financial statements and annual report. By the end of the course, you should be familiar with the four basic financial statements, some of the key accounts on the balance sheet as well as the overall accounting cycle. As a manager, you should be able to effectively analyze a company's financial statements and annual report. Additionally, managers should be able to conclude on a company's profitability, efficiency, liquidity and solvency.

BUS 501 Business Communications   3 credits

This course focuses on the development of clear written and oral communication skills. It examines a variety of communication techniques, formats, and processes for sharing organizational information. The course explores the use of audiovisual and electronic media to enhance the quality of presentation and communication.

BUS 502
Global Business Environment   3 credits

This course examines the global business environment and its impact on an organization's business strategy and decision making. It focuses on the complexities and risk/reward assessments that arise due to highly diversified markets, cross cultural issues, globalization, international organizations (WTO, IMF, World Bank, etc.), nongovernmental organizations (NGOs), foreign direct investment, and currency risk challenges.

BUS 505 Finance   3 credits

What projects should an organization invest in? Where will an organization obtain finance to pay for investments? How will an organization manage day-to-day financial activities such as cash collections and payments? The purpose of this course is to provide students with an overview of the problems facing financial managers in an uncertain world. It is intended to develop students' critical thinking and problem solving competencies in financial statement analysis, capital structure, and capital budgeting.

The course is focused on applying financial theory to analyze real life situations with students placed in the role of a financial manager making decisions in an uncertain environment with an incomplete data set.

BUS 506 Marketing   3 credits

This course presents a systematic framework for understanding marketing management and strategy. It focuses on creating and executing marketing strategies and policies and examines the ethical, legal, social, and environmental issues relevant to the development of sound marketing strategies and policies.

BUS 510 Health Care Policy,
Politics, and Power   3 credits

This course examines the critical role of health care leaders in the policy making arena. Students examine the federal policy making process, key issues in health policy, and the roles power and politics play in policy development and implementation. Students explore health care reforms and efforts to respond to disparities in health outcomes for vulnerable populations.

BUS 510 is cross-listed with HSC 510. Students in the business degree should register for the BUS version of this course, and health science degree students should register for the HSC version of this course. Students may not take both versions of the course and have the credit count toward graduation.

BUS 512 Compensation and Benefits   3 credits

This course studies the total rewards provided to employees in return for their contributions to an organization, investigates its strategic and tactical aspects, and examines current issues with compensation and benefits. The principles of modern compensation and benefits are considered from legal, practical, and theoretical perspectives. Students will examine how compensation and benefits can add strategic value by aligning total compensation with organizational goals and investigate the challenges facing organizations operating on a global scale.

BUS 514 Employment Law   3 credits

Each year, the Equal Employment Opportunity Commission (EEOC) reports the number of complaints of harassment and discrimination they received due to protected categories, including: national origin, race/color, sex, genetic information, sexual harassment, age, disability, pregnancy, and retaliation. These complaints were not able to be successfully resolved by employers. This course explores the way legislation directs and regulates the relationship between an employer and employee. Students will examine how legal principles relate to the organizations in which employee's function. In addition, this course will address legal issues in non-for-profits and entrepreneurial firms. Students will also learn how to investigate complaints properly, as well as engage in preventative measures for harassment and discrimination.

BUS 515 Labor Relations and Conflict Management   3 credits

This course explores the complex relationship among management, unions, and employees in the workplace. The course will concentrate on the behavioral and organizational issues that arise in the often-contentious environment of a unionized workplace. Students will study and learn the general nature of labor relations. This will include the historical, legal, and structural environments that have greatly influenced contractual management; the negotiation, administration, and major contents of labor relations documents; struggles and disputes between labor and management; and the various tools and mechanisms to resolve these conflicts.

BUS 516 Communication Strategy for the Health Care Leader   3 credits

Highly effective leaders must be excellent communicators; building a communications toolkit is essential. This course equips students with health communication strategies for use with a variety of stakeholders within and outside of the health care system. Students examine a variety of communication contexts, including communication management, intercultural and intergenerational communication, and health campaign messaging. Evolving communication technologies are explored. Students apply what they have learned by developing a communication strategic plan.

BUS 516 is cross-listed with HSC 516. Students in the business degree should register for the BUS version of this course, and health science degree students should register for the HSC version of this course. Students may not take both versions of the course and have the credit count toward graduation.

BUS 517 Employee Staffing and Development   3 credits

This course covers key principles and practices in staffing and employee development. The course focuses on the interdependence of effective organizational performance with proper staffing, including recruiting and selection functions and proper assessment of personnel and employment training involved in human resource management.

BUS 518 Leading Teams   3 credits

This course applies concepts, theories, and practices necessary to build, lead, and maintain high performance teams. Students will focus on team dynamics, decision-making, leadership, communication and conflict management in various organizational settings.

BUS 520 Operations Management   3 credits

This course provides a managerial focus on the fundamental understanding of manufacturing and service operations and their role in the organization, with special emphasis on international dimensions. Topics include, but are not limited to: process flow analysis, inventory management, capacity planning, logistics, facilities location, supply chain management, total quality management, human resource management, technology management and manufacturing and service strategy. The course is integrative, and emphasizes the fit and relationship of operations with other functions of the firm.

BUS 522 Global Operations and Supply Chain Management
3 credits

Global Supply Chain / Operations Management is one of the core courses required for MBA learners. The purpose of this course is to provide a fundamental understanding of manufacturing, distribution, inventory and service operations, and their role within the organization. The course will survey a wide range of operations topics, including process flow analysis, inventory management, capacity planning, logistics operations, supply chain management, quality in operations, project management, manufacturing, distribution, and service operations. The course will deal with these topics through a managerial, applications-oriented perspective, with special emphasis placed on the international dimension of operations. Students will work on a team and solve practical operationsmanagement issues involving cutting edge technology that will be relevant to them in the years to come. This course is forward-looking and will give students a chance to use their imagination for the good of customers and at the same time help their business reach people all over the world.

BUS 526 Strategic Management of Health Care Organizations
3 credits

This course explores theories and principles underlying strategic planning specific to health care environments. Through case study analyses, students learn strategies on how to position health care organizations in order to sustain a competitive advantage in a volatile reimbursement-driven industry. Some of the topics covered in this course include strategic positioning, strategies of mergers and acquisitions, and competitive advantage and profitability.

BUS 526 is cross-listed with HSC 526. Students in the business degree should register for the BUS version of this course, and health science degree students should register for the HSC version of this course. Students may not take both versions of the course and have the credit count toward graduation.

BUS 530 Project Management Principles and Application
3 credits

This course covers the key components of project management process including effectively defining the project, identifying the scope, project lifecycle, communication, planning, performing, and controlling the project. Case studies and a final project are used to examine best practices, including risk assessment.

BUS 535 Quality and Productivity Methods in the Management of Technology
3 credits

This course presents current management techniques and processes for improving products, services, and processes. Students will examine social media in context with advertising, marketing, and public relations. Additionally, students will gain basic hands-on experience with current social media technology. Practical applications with both limitations and opportunities of different social media contexts will be explored to assess their impact on appropriate constituencies and/or organizational cultures. Finally, the course will focus on demonstrating best practices for developing and implementing effective techniques, tactics, and strategies to more effectively and efficiently reach target markets.

BUS 540 Strategic Management of Innovative Technology
3 credits

Examines theories and methods to prepare managers to handle strategic issues related to the effective management of innovative technologies. Explores the principles of strategic management with direct application to technology. Integrates: strategy setting, implementation and assessment; historical cases of business innovation through a maturation lifecycle; and application of lessons learned in contemporary business cases.

BUS 545 Social Media: Marketing 3 credits

This course will develop the students' ability to strategically create and implement an effective social media marketing campaign. Focus will be placed on fully understanding and integrating appropriate social media tools for supporting and improving the effectiveness of organizations marketing and communicational processes. Students will examine social media in the context of advertising, marketing, and public relations. Practical applications will be explored to assess the impact of social media technologies on appropriate constituencies and/or organizational cultures.

BUS 550 Contingency Planning 3 credits

This course examines the planning process in organizations to continually confront the unlikelihood of a disaster causing an unexpected interruption of normal operations. Specifically, it provides an overview of the key elements and strategies of implementing a crisis management program within an organization. Undertaking a business function analysis approach, students will be able to define anticipated consequences when a disruption of normal organizational operations occurs and develop a recovery plan built around desired outcomes.

BUS 552 Leadership 3 credits

Focuses on the leadership process within the broad context of organizational dynamics. Explores leadership from four different perspectives: the leader; the follower; the situation; and leadership skills. Theories, concepts and models are applied to workplace situations.

BUS 553 Organizational Behavior 3 credits

This course provides an overview of the principles of organizational behavior using evidence-based practice. You will discover how individual differences impact organizations (including your own), learn how to apply management and leadership skills to specific situations, apply proper business ethics to situations, and examine how culture plays a role in today's global business world. In the final assignment you will practice how to present a portfolio worthy solution proposal to the key stakeholders in an organization.

BUS 554 Change Management 3 credits

A study of the process of change and change management. Focuses on the types of changes that take place within organizations, identifying the key issues and challenges associated with each type of change. Uses macro and micro tools for working with change, including management skills and styles, communications patterns, and force-field and gap analysis.

BUS 561 Virtual Training and Development 3 credits

This course provides an overview of facilitating training programs in a virtual environment. It addresses adult learning principles involved in the design of virtual training, strategies for engaging employees during training, the use of training methods for synchronous and asynchronous learning, and ways to assess the effectiveness of the training program.

BUS 562 Virtual Team Management 3 credits

This course provides an overview of managing virtual teams, including managing global teams. It addresses conflict management, performance issues, knowledge sharing, and data analytics for virtual teams.

BUS 563 Data Analytics 3 credits

IND 503 Data Driven Decision Making (for MS in Organizational Leadership)
This course provides students with an understanding of how data analysis enables companies to be more competitive. Students apply data analysis techniques to assess how organizations can integrate data analysis throughout operations to improve organizational decision making. Case studies and the introduction of relevant tools will be used to demonstrate the application of data analysis to improve organizational operations.

BUS 564 Big Data and Visualization 3 credits

Prerequisite: IND 503 Data Driven Decision Making (for MS in Organizational Leadership) and BUS 563 Data Analytics (for both MS in Organizational Leadership and Graduate Certificate in Data Analytics)
This course introduces students to the impact of big data on various industries. Students will

explore the growth of data via the Internet of Things (IoT) and will explore various strategies being used within industry to utilize data to improve decision making. Through case analysis, students will assess how big data, machine learning and artificial intelligence are impacting organizations and how these organizations are developing strategies to capitalize on the opportunities presented.

BUS 570 Information Technology — 3 credits

This course examines the strategic, operational, and ethical uses of information technology. It explores global and electronic markets and data management, and it examines how IT can support customer and supply chain management.

BUS 572 Technology and Project Management — 3 credits

In the employment market, many projects are controlled by the professions of Engineers, Architects, Construction Managers, and Lab Scientists. These conditions leave a massive opportunity for MBA-level employees. That role is in planning Information Technology projects. This course explores the use of project management methods and processes applied to Information Technology management, maintenance, and innovation. Students will examine MBA-level managers' roles as stakeholders, subject matter specialists, end-users, business analysts, and project managers. The course examines the challenges of managing current organization technology platforms, replacement through product choices and new implementations, and opportunities for innovation—issues of strategy, change, risks, and ethics.

BUS 573 Strategic Brand Marketing — 3 credits

This course provides students with insights and strategies for positioning their organizations and its associated products and/or services in highly competitive consumer and B2B markets. Topics include customer loyalty, branding, pricing, promotion, digital marketing, marketing information systems, sales structures and compensation, industry marketing, marketing communications, lead management, and marketing campaign strategy.

BUS 670 Conflict Management and Alternative Dispute Resolution — 3 credits

This course provides an introduction to the human resource field of conflict management and alternative dispute resolution through case analyses. You will examine the major causes of conflict, the effects of personality and perception on conflict, and recommended strategies to manage the conflict in organizations. Learn about your own styles for managing conflict and develop competency in interaction with other styles.

Cross-listed with ADR 670.

BUS 671 Mediation — 3 credits

The ability to work toward a consensus and reduce potential conflicts in a variety of contexts is of utmost importance in today's society. This course provides an overview of mediation processes. You will learn a variety of communication and negotiation skills in order to settle disputes outside of a courtroom setting. Working collaboratively, you will also create an operations plan for a mediation center, and make recommendations about the type of center for your assigned state.

Cross-listed with ADR 671.

BUS 696 Organization Leadership, Technology and Analytics Capstone — 3 credits

Prerequisite: This course must be taken as the final course in the program, advisor approval required. This course allows students to showcase and apply their skills in organizational leadership, technology, and analytics to a real-world scenario. It will culminate in a final project that assesses all program learning outcomes and allows the student to showcase their work in an employer-focused e-portfolio.

BUS 697 Human Resource Management, Diversity and Technology Capstone — 3 credits

Prerequisite: This course must be taken as the final course in the program, advisor approval required.
In this course, students will apply the advanced theoretical and practical knowledge attained throughout the master's in human resource management program. Students

will also demonstrate their understanding of the legal and human resource dimensions of organizations, including distributed workplaces, through analysis as well as the integration of communication and leadership skills for remote employees. This capstone course provides opportunities to define, analyze, and apply human resource theories and models to resolve complex organizational problems, and students learn strategic objectives to enhance organizational performance.

BUS 698
Management Strategies Capstone   3 credits

Prerequisite: This course must be taken as the final course in the program, advisor approval required.

This is the Master of Science in Management (MSM) Capstone course. It integrates previous study and various management disciplines to formulate, analyze, and implement effective management strategy. Students will analyze complex management situations to make strategic decisions under conditions of uncertainty.

BUS 699 MBA Business
Strategy Capstone   3 credits

Prerequisite: This course must be taken as the final course in the program, advisor approval required.

MBA capstone course. Integrates previous study and various business disciplines to formulate, analyze, and implement effective business strategy. Students will analyze complex business situations for making strategic decisions under conditions of uncertainty.

CBC 600 Implications of Legalization
of Cannabis: Policy and Compliance   3 credits

In this course, you will learn how cannabis legalization has had an impact on various institutions, entities, and individuals while also exploring the dilemmas between policy and legal regimes. You will examine the importance of compliance, how to create standard operating procedures and employee training, and how to develop a community plan. You will also participate in the development of a class wiki that will serve as a valuable resource that you will take with you at the conclusion of the course. Lastly, you will compile your work into an electronic portfolio that you can use to present to prospective employers.

CBC 601 Complexities of
Cannabis as Commerce   3 credits

In this course you will look at the national and local, laws and regulations that have shaped the current legalized cannabis industry. You will also study existing cannabis tax schemes, assess their impacts on businesses and effectiveness in meeting individual cannabis program goals, and suggest improvements, as well as develop strategies for businesses and governments to plan for and meet shifting tax burdens. You will then analyze economic, legal, and public health implications of traceability and transport of cannabis and cannabis industry supporting products. You will explore how raw materials and products are traced through the supply chain, and what kind of technology is required to do so.

CBC 602 Risk Assessment
in Cannabis Control   3 credits

In this course students will explore the tensions between taxation and profitability, public safety, diversion, patient access, and community integration along with advertising, marketing, sales, consumer use, and social equity. The student will learn through various stakeholder lenses such as regulators, operators, and consumers. Students will also identify risks associated with technology and data standards, and risks associated with various components of the supply chain.

CYS 500 Foundations of Cybersecurity 3 credits

This course will review several advanced networking topics, including wireless and mobile networking, satellite and near field communications, RFID (Radio Frequency Identification), and the use of cryptography and encryption in data transmission and networking. This course will also discuss privacy and security issues related to the use of these networking technologies.

CYS 503 Communications and Network Security
4 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course is an introduction to network security fundamentals, security policies, networking threats, and technologies. Design and implementation of secure communications networks, network management, and network scanning are covered. Technical topics include device hardening, encryption, proxies, firewalls, VPN and remote access design, NAT, DHCP, VoIP and other network design considerations. Students learn how to implement a security plan, itemize security threats, and list the elements of security in networked and mobile systems. Honeypots, sinkholes, and other network defenses are examined.

CYS 504 Network and Communication
3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course is an introduction to network security fundamentals. It is organized in four parts. The first part covers the basics of private key and public key cryptography, including the common encryption algorithms AES, RC4, and RSA. The second part builds on cryptography to design secure protocols for confidentiality, authentication, and data integrity. Examples will include IPSec, SSL/TLS, and VPNs. The third part covers how cyber attacks proceed from reconnaissance to exploits and intrusions. Particular emphasis is given on web attacks (such as phishing, SQL injection, drive-by downloads) and malware. The last part of the course will describe focus on intrusion prevention, detection, and response. Specific topics include firewalls, spam filters, intrusion detection systems, and risk management. Students will learn about protocols to communicate securely over unsecure networks, and about modern technologies for protecting computers from a wide range of threats. Throughout the course, real world cases are discussed, and students will gain hands-on experience in labs.

CYS 522 Advanced Networking
3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course builds on the basic networking concepts and focuses on several advanced networking topics including wireless and mobile networking, near field communications, RFID (Radio Frequency Identification) and the use of cryptography and encryption in data transmission and networking. This course will also discuss privacy and security issues related to the use of these networking technologies.

CYS 523 Software and Application Security
3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

In this course students learn the key concepts of secure coding and how to plan, develop, and implement applications that are based on these principles. Concepts covered in this course include maintaining version control and limiting access to the source code. Students will learn how to evaluate a program for safe usage and implementation within an organization.

CYS 526 Cyber Attacks and Defense
3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course will provide hands-on learning through the application of penetration testing and incident response as methods to proactively identify, validate, contain, and remediate vulnerabilities within a given system or application. The learners will have the opportunity to research and discuss current topics in cyber-attacks and defenses and gain hands-on experience in both penetration testing and incident response via real-world scenarios applied in a safe virtual environment.

Students registering for this course will be assessed a course resource fee.

CYS 545
Security Policy and Compliance   3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course will focus on security policy and compliance in the world of cybersecurity that encompass laws, ethics, privacy and governance issues. Students will be exposed to national and international policies while understanding the importance of security policy as the beginning of any security program in organizations. The theory and principles behind the topics mentioned are explored in depth where policy documents are critiqued and compliance issues and frameworks are examined. Students will learn the approach to writing security policies while taking into consideration the significant role of compliance.

CYS 555 Cybersecurity in Healthcare   3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course provides an in-depth analysis of the diversity of the healthcare industry, types of technologies, flow of information, and levels of protection. It presents a plan-protect-respond framework of relevant legal and regulatory requirements, ensuring an organizations' policies and procedures are in compliance with industry standards. The course examines how an organization manages information risk through security and privacy governance, risk management lifecycles, and principle risk activities.

CYS 556 Healthcare
Information Systems   3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity CYS 555 Cybersecurity in Health Care

This course focuses on data and information technology to improve organizational performance in healthcare settings. System like the Nationwide Health Information Network (NwHIN) and other health information systems will be surveyed. Information systems and data management

fundamentals will be reviewed. The use of research tools and databases will be used to analyze organizational problems. The course includes exploration of electronic medical records (EMRs) that are used in the medical fields. Legal and ethical issues will be explored as will the other use of technologies in healthcare settings.

CYS 560 Information Assurance   3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course will provide awareness, guidance, best practices, and assessments on the principles of information systems security. We will examine the foundations of information systems security as defined by industry experts and the International Information Systems Security Certification Consortium, or (ISC)[2], which is considered a definitive source for information security domain definitions and a premier certification authority. As such, this course will examine information systems security concepts according to the consortium's newly redesigned "eight domains of knowledge" model for their Certified Information Systems Security Professional (CISSP) certification.
Students registering for this course will be assessed a course resource fee.

CYS 565 Security
Management Awareness   3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course introduces Security Management awareness and provides important and cost-effective methods to protect sensitive information. Through a structured environment of physical, computer, and network security measures, implementation of effective user training, establishment of policies and procedures, and sharing of knowledge and expertise within an organization to protect sensitive information, each student is provided essential information to create and maintain a secure environment.

CYS 575 IT Risk Analysis and Management   3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course examines information security risk analysis and management from a business perspective. The course will provide an overview of the key aspects of risk analysis and management, including asset identification and associated risk identification, qualitative and quantitative risk assessment and prioritization, determination of risk mitigation strategies, budgeting for risk, and ongoing risk management. This course will provide knowledge, skills, and techniques to identify, prioritize, and manage the many IT security risks facing businesses today. Students will also examine how IT risk management supports IT governance and decision making by businesses. The role of risk analysts, auditors, security personnel, and management will be discussed.

CYS 577 Global Cybersecurity   3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course focuses on four general areas of cyber capabilities and trends in the global community. The theory and practice of cybersecurity and cyberwar will be analyzed through cyber capabilities of nation-states as well as non-state actors. Existing trends and new trends will be evaluated in cyber-related strategies and policies related to challenges facing governments. Global cybersecurity policies will be evaluated and best practices will be discussed.

CYS 585 Digital Crime Prevention And Investigation   4 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course provides an in-depth analysis of the digital defense planning, technologies, and methods to safeguard organizational networks, databases, and applications; and the proper handling of electronic evidence (e-evidence) in digital crime investigations. Presents a plan-protect-respond framework of digital security and the interaction of policies, implementation, and oversight; and how to perform a computer forensic investigation. Regulatory and legal electronic records management (ERM) and e-mail retention requirements are thoroughly covered. Students learn how to search, analyze, and report e-evidence and the legal requirements for presenting admissible evidence to the court, recovery and analysis of digital evidence, addressing legal and technical issues.

CYS 586 Digital Crime Prevention and Investigation   3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course provides an in-depth analysis of the digital defense planning, technologies, and methods to safeguard organizational networks, databases, and applications. It presents a plan-protect-respond framework of digital security; the interaction of policies, implementation, and oversight; and ways to perform a computer forensic investigation.

Students registering for this course will be assessed a course resource fee.

CYS 596 Capstone Project in Cybersecurity   3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity. This course should be taken as the final course in the program, advisor approval required.

This is a capstone course which examines computer security technologies and principles, including cryptography, authentication, access control, database and software security, management issues such as physical and infrastructure security, human factors, and security auditing. This course also covers IT security management, risk assessment, and legal and ethical considerations.

CYS 610 Cloud and Data Security   3 credits

Prerequisite: CYS 500 Foundations of Cybersecurity

This course will provide awareness, guidance, best practices and assessments on the principles of information systems security. We will examine the foundations of information systems security as defined by industry experts and the International Information Systems Security Certification Consortium, or ISC (Information Security Certification)2 , which is considered a definitive source for information security domain definitions and a premier certification authority. As such, this course will examine information systems security concepts according to the consortium's newly redesigned "eight domains of knowledge" model for their Certified Information Systems Security Professional (CISSP) certification. We will use course textbooks, open educational resources, current cybersecurity events, research and case studies to support our lectures, discussions and assessments. We will learn to apply some of the information systems security knowledge and skills through individual activities and practice exams. The course will provide you with an opportunity to apply the course subjects to a project that encompasses several of the major topics.

Students registering for this course will be assessed a course resource fee.

ECO 508 Managerial Economics   3 credits

Everyone knows that success in business is a matter of strategy. However, not everyone knows how to think through decisions strategically, using the tools of game theory and economic analysis to gain an advantage over opponents, and to change the game fundamentally in your favor. In this course, you will learn to use tools developed by economists to address common situations faced by managers in a day-to-day business environment. You don't have to win a Nobel Prize to understand the economic principles that have won these distinctions for economists that developed game theoretic thinking, and decision-rules based on market structure, consumer and firm

behavior, and other elements of a commercial environment. In this course, you will learn to analyze a market, competitors, customers, employees, and purchasing decisions in order to gain traction on the variety of commercial roads traveled routinely in the world of business management.

HSC 510/BUS 510 Health Care Policy, Politics, and Power   3 credits

This course introduces you to the core elements of healthcare policy analysis, policymaking, and the far-reaching impacts that power-policy dynamics have on how policies are written and implemented. You will develop leadership skills in health policy analysis, development, and critique. Strategies to advocate for improved health policy and power-sharing in increasingly volatile healthcare and political arenas will be explored. You will develop expertise in a health-related policy of interest to you through the completion of a term-length project.

HSC 510 is cross-listed with BUS 510. Students in the Health Sciences degree should register for the HSC version of this course, and Business degree students should register for the BUS version of this course. Students may not take both versions of the course and have the credit count toward graduation.

HSC 516 Communication Strategy for the Health Care Leader   3 credits

Healthcare leaders have a profound responsibility to communicate effectively with diverse audiences. An increasingly remote workforce has created a sense of urgency to communicate effectively in the digital space. This course provides an overview of prevalent communication theories and a conceptual framework for strategic, effective health communication. You will examine a variety of contexts of communication typical to healthcare administrative roles, including communications planning, community-building, leading productive meetings, advocacy, inclusive communication across cultures, and crisis communication. Significant emphasis will be placed on new and emerging forms of leadership communication, ranging from myth-busting to social media and remote platforms. You will create a

strategic communication plan within a health environment of your choosing and develop your own communication development plan.

HSC 516 is cross-listed with BUS 516. Students in the Health Sciences degree should register for the HSC version of this course, and Business degree students should register for the BUS version of this course. Students may not take both versions of the course and have the credit count toward graduation.

HSC 517 Contemporary Issues in Health Care Delivery Systems   3 credits

In this advanced healthcare delivery systems course, students gain an in-depth understanding of current issues and emerging trends facing leaders within healthcare delivery systems. The diversity and complexities of various healthcare settings are explored, along with the drivers of healthcare delivery. Themes of quality assurance, patient safety, access, and ethical leadership are infused throughout the course. Students apply what they have learned through analysis of real-life case studies.

HSC 525 Informations for Healthcare Leaders   3 credits

Information management is vital to the functioning of health and public health organizations. This course equips you with the skills to guide ethical, evidence-based decision-making around current and emerging information technologies. It examines the use of healthcare technology in warehousing, communicating data, and safeguarding data and electronic health records. You will learn to leverage the power of informatics and your teams to positively impact health outcomes, improve organizational processes, and ensure all health information is protected. You will have the opportunity to work on a term-length project in which you analyze and identify solutions for an informatics problem impacting a healthcare organization.

HSC 526 Strategic Management of Health Care Organizations   3 credits

Prerequisite: HSC 431 Introduction to Health Care Delivery Systems. This course is only a prerequisite for students in the MBA program that have no health care related background and are choosing this concentration. This course explores theories and principles underlying strategic planning specific to health care environments. Through case study analyses, students learn strategies on how to position health care organizations in order to sustain a competitive advantage in a volatile reimbursement-driven industry. Some of the topics covered in this course include strategic positioning, strategies of mergers and acquisitions, and competitive advantage and profitability.

HSC 526 is cross-listed with BUS 526. Students in the Health Sciences degree should register for the HSC version of this course, and Business degree students should register for the BUS version of this course. Students may not take both versions of the course and have the credit count toward graduation.

HSC 528 Health Care Finance   3 credits

Suggested Prerequisite:
Students in this course gain in-depth knowledge about the financial environment in which health care organizations operate. Students learn health care finance concepts, managerial and accounting principles, and various means of reimbursement for health services. Students complete a health care finance project to effectively demonstrate the steps in the budget process and practice using financial analysis tools.

HSC 561 Quality Management in Health Care   3 credits

Healthcare quality is a cornerstone by which professionals practice and lead within their organizations. This course offers an in-depth exploration of healthcare quality, including essential principles and techniques relevant to quality improvement in all areas of health care. You will apply quality improvement theories and evidence-based processes to pressing quality issues

facing health and public health providers and will learn how to use these processes to initiate and sustain changes.

HSC 644 Nutrition Science for Health Professionals   3 credits

The world of nutrition has become increasingly controversial in recent decades. With so many diets to choose from and a population-wide quest for the "perfect diet, "understanding the science supporting healthy nutrition has never been more critical. Information that is portrayed as science-based is often at least partially inaccurate. This course will equip you with a foundational understanding of nutritional science. You will learn how to assess nutritional information for scientific rigor. From there, you will begin to apply the science to case-based learning, giving you opportunities to address nutritional issues in a culturally sensitive manner. You will learn about the role of food in culture, how food metabolizes in the human body, and how to formulate nutritional recommendations for both healthy individuals and those who are living with chronic disease.

HSC 645 Nutrition Across the Lifecycle 3 credits

Nutritional needs change over the life course. This course will equip you with a foundational understanding of nutritional needs across the lifespan of healthy individuals from conception through elderhood. You will learn how to assess nutritional needs based on life stage and develop evidence-based dietary recommendations for diverse populations across the lifecycle. You will examine the socioeconomic, cultural, and environmental influences on nutritional needs and preferences. Using simulated nutrition case conferences, you will gain valuable skills in culturally sensitive assessment, nutrition education, and development of dietary recommendations.

HSC 646 Health Education: A Cross-Cultural Perspective   3 credits

Health education is a critical tool for the health professional. This course will provide you with valuable career skills in assessing educational needs, planning, delivering, and evaluating culturally competent health education with diverse individuals and communities. By learning to apply learning theories and motivational interviewing, you will be equipped to deal with barriers that clients may face. A major focus will be on identifying and dispelling prevalent myths around health and nutrition, particularly those fueled by media and social media. By the end of this course, you will develop a health education intervention that can serve as a model for use in your career.

HSC 648 Nutrition and Chronic Disease 3 credits

Nutrition is a cornerstone for health and quality of life. Healthful nutrition is essential for the prevention of chronic disease and is a central intervention for people living with chronic disease. This course will provide you with an overview of various chronic conditions and the vital role that nutrition plays in prevention and treatment. You will explore a number of chronic conditions, including cancer, diabetes, cardiovascular disease, kidney disease, obesity, gastrointestinal diseases, and more. You will have the opportunity to apply your knowledge by completing assignments focused on either preventing or managing a chronic condition using nutritional best practices.

HSC 697 Graduate Health Sciences Capstone   3 credits

Prerequisite: This course should be taken as the final course in the program, advisor approval required.

This end-of-program capstone course allows you to synthesize and apply the knowledge acquired throughout your graduate program. You will demonstrate mastery of skills required for

advanced practice roles through varied assessments that address current and emerging practice-based and system-based issues in health care.

HSC 698 MS in Health Care Administration Capstone   3 credits

Prerequisite: This course should be taken as the final course in the program, advisor approval required.

This end of course capstone provides students with the opportunity to demonstrate knowledge achieved throughout the program. Students will complete a special project designed to address an issue faced by health care administrators.

IND 501 An Interdisciplinary Approach to Ethical Leadership   3 credits

This interdisciplinary course on ethical leadership will develop highly effective transformational leaders in their respective professions who formulate sustainable, ethically sound solutions to practical management problems encountered in a complex global environment. Students will learn how to set direction and work with multiple constituencies with divergent needs through an ethical lens that includes social responsibility and the intersections of diversity, culture, and environment, and how these differences affect best practices in management in their disciplines.

IND 502 Strategic Talent Management in a Complex World   3 credits

The interdisciplinary Leadership and Talent Management course will enable students to acquire the skills necessary to strategically lead decisively across all functions in organizations, including recruitment and selection of employees, training and development, performance appraisals, health and safety, labor relations, and change management. Students will be introduced to leadership and talent management within and across disciplines and apply strategies to the private, public and not-for-profit sectors. This course will integrate legal, management, and social science research with an action learning-based approach to executive-level leadership education. Students will have the opportunity to apply these skills through their own disciplinary lenses and will

gain an in-depth understanding of how these skills are applied in other disciplines.

IND 503 Data Driven Decision Making   3 credits

This course is an interdisciplinary approach to research methods and is designed to provide students with an introduction to statistical theory and practice. Students will learn how to research a current issue and interpret statistics for the fields of criminal justice, business, health sciences, and public administration, assuming leadership roles in their discipline.

IND 522 Leading High Performing Teams

Great organizations are built with high performing teams. In this course, students will learn about team dynamics, strategic techniques for high performance, and leading teams for success. The course utilizes leadership theories and team/follower theories to identify approaches to teamwork, construction, and conflict. Students will learn how to apply vision, strategic planning, and trending technologies to achieve more together. For their final project, students will perform a situational analysis on a real-world scenario.

MCJ 622\HSC 622 Grant Writing   3 credits

The course provides hands on learning and instruction on the art of grant writing and how it can be applied in nonprofit, academic and institutional settings. Students will work through the grant funding and application process, including, program need, program development, budget, objectives and outcomes and evaluation, as well as, how strategic planning supports an organization in achieving its long term goals.

MCJ 518 Comparative Justice   3 credits

The course will provide a critical examination of the history, significance, and method of comparing and contrasting global criminal justice with those prevailing in the United States. Moreover, the course gives students significant understanding that no system is perfect and each has their own strengths and challenges—a sound model.

Students elaborate on methods of evaluation of the individual system from a law enforcement leadership perspective by systematically comparing the criminal justice systems and examine both what works and doesn't work dependent upon the overall circumstances—relative to cultural and historical contexts. Students digest how each balance individual rights and the necessity for order maintenance.

MCJ 522 Pillars of Criminal Justice   3 credits

This course examines criminal justice issues from the perspectives of the three pillars (law enforcement, courts, and corrections) to see how they work together to affect change in society. Through the lens of current issues, theory, policy, and ethics the course will explore how actions taken by different components of the criminal justice system interact and play out in society. Students will have the opportunity to respond to events as a leader of each of the pillars.

MCJ 530 Legal and Constitutional Issues   3 credits

This course examines some of the more important legal and constitutional issues facing criminal justice practitioners. Topics such as the roles of the courts in our judicial system, the powers entrusted to the separate branches of our government, 1st and 2nd Amendment rights and guarantees, 4th, 5th and 6th Amendment protections and issues faced by the various players in the criminal justice system, and restrictions on employee freedom of speech will be discussed. The course also addresses lying and decision in criminal justice and racial prejudice and discrimination.

MCJ 628 Personnel Management in Criminal Justice   3 credits

This course presents highlights of the trials and tribulations of executives in Criminal Justice in all areas of personnel from recruitment and selection through training, motivation, discipline and promotion. The course evaluates, the policy and political considerations faced by those in a hiring position from the perspectives of different organization sizes and state laws such as right to work states versus union states.

MCJ 630 Risk Assessment in Homeland Security and Emergency Management   3 credits

This course provides an introduction to critical infrastructure protection and the policies, strategies, and practical applications of risk and resilience efforts from an all hazards perspective. Topics covered include an in-depth examination of national infrastructure protection policy, the roles and responsibilities of sector-specific agencies, coordinating frameworks, public-private partnerships, and the emerging issues of cybersecurity, interdependencies, and climate change. With a focus on policies that support critical infrastructure strategies, this course is designed to enhance the student's ability to recognize and evaluate risks associated with human-caused, natural, and technological disasters through a myriad of risk management approaches, including best practices used by the homeland security enterprise.

MCJ 650 Terrorism and Counterterrorism   3 credits

This course provides a multidisciplinary overview of the causes, methods, motivations and historical lessons surrounding terrorism and the United States' response to terrorism. Responses to terrorism are examined through three perspectives: intelligence, law enforcement and international relations. This course is intended to support the development of critical thinking and writing skills, so that students can critique research and policy decisions and discuss their findings in a capable and nuanced manner.

MCJ 651 Overview of Homeland Security and Emergency Management   3 credits

The homeland continues to experience new threats domestically, environmentally and through our cyber systems. Homeland Security and Emergency management professionals need to be able to predict, plan and execute plans to protect their communities. In this course emerging issues and lessons learned from past

events will be explored. Students will identify potential threats in each of the 16 sectors, anticipate threats to their communities, identify the vulnerabilities and create plans to keep their communities safe. They will also present their plans to community stakeholders for consideration and implementation.

MCJ 652 Mental Health Issues in Criminal Justice 3 credits

This course gives students an understanding of the ways criminal behaviors and mental health issues are dealt with in the criminal justice system. The course also explores the philosophical conflict between treatment and punishment, and resources available in the Criminal Justice System.

MCJ 660 Human Trafficking 3 credits

This course on modern day slavery takes an in-depth look at human trafficking both domestically and internationally. It focuses on existing policies and practices of prevention and prosecution, such as victim and perpetrator identification, to combat these crimes and to protect and address the needs of victims. In the course student's role play members of a Human Trafficking Task force working a case as an investigator or as an advocate. Together the task force devises recommendations for future task forces.

MCJ 698 Capstone 3 credits

Prerequisite: This course must be taken as the final course in the program, advisor approval required.

This is an advanced capstone course designed for students to demonstrate that they have successfully mastered the skills and knowledge presented to them during the course of the MSCJ program. Through a mixture of in-depth discussions, independent research, and written analysis, students will synthesize and apply knowledge gained in the core and concentration courses. By developing an original project focused on social justice, students will demonstrate that they can identify problems in the field and have mastered the ability to apply research and critical thinking skills

to address criminal justice and policy issues. This is a reading- and writing-intensive course that serves as the culmination of the students' work at the Master's degree program. This is an intense eight-week course requiring significant research and writing from the student.

MPA 500 Introduction to Public Administration Theory and Practice 3 credits

This course is an introduction to the study and practice of Public Administration. This course will provide an overview of the field of public administration, focusing on the functional roles of public administration in the political process. It will introduce students to concepts and practices in public administration, focusing on accountability and performance. Additionally, this course will explore the practical application of concepts to current issues to the field of public administration.

MPA 502 Public Management in a Political Environment 3 credits

This course analyzes concepts, methods, skills, and procedures involved in managing public organizations in a political environment. Throughout the course, you will consider problems of partnering, collaboration, social change, public opinion, organization, planning, decision making, performance evaluation, and management of human resources. The course utilizes project-based group assignments, individual assignments, discussions, and reflections to assess mastery of course concepts.

MPA 511 Public Budgeting and Financial Management 3 credits

This course will allow you to examine the key aspects of a public sector budget from identifying and securing key stakeholder support, to identifying state and local funding sources to be allocated based on the needs of an organization. You will also study the theory of budgeting from the public sector perspective, with an emphasis on understanding and applying the principles of financial management.

Cross listed with MCJ 511.

MPA 531 Public Sector Technology   3 credits

This course explores ways in which technology is transforming the public sector. It analyzes the use of new technologies and strategies to identify needs, develop solutions, and deliver services more effectively. Students will discuss technology in such areas as public safety, education, transportation, economic development, finance, administration, and health and human services.

MPA 651 Contemporary Issues in Nonprofit Management   3 credits

This course explores the unique characteristics of non-profit organizations, and the impact of current issues on these entities in the United States. You will learn to expand your management and analytical skills, and your knowledge of the nonprofit sector in general, utilizing specific non-profit management principles and techniques. Learning how to navigate the stakeholders in the nonprofit sector is a skill that is integral to management in the public arena.

MPA 698 Capstone in Public Administration   3 credits

Prerequisite: This course must be taken as the final course in the program, advisor approval required.

The Capstone course represents an integration of classroom learning with practical experience. You will solve real problems for public and nonprofit organizations through scenarios that apply to federal, state, and local levels of government, as well as an issue that you have identified in an organization of your choice. You will draw on the coursework and your own work experiences to develop specific recommendations for design, implementation, and evaluation of a project task. The course culminates with a complete, professional portfolio, ready to showcase to employers.

PBH 592 Biostatistics   3 credits

To succeed in the public health field, the ability to understand and apply basic statistical methods commonly used in the design and analyses of biomedical and public health investigations is essential. The major topics covered in this course include types of data, study designs, probability, hypothesis testing, power, and sample size. Emphasis is placed on applying appropriate statistical methods, interpreting the results across public health environments, and communicating effectively with diverse stakeholders.

Students not in the Public Health Concentration may take HSC 580 Research and Applied Statistics instead of this course.

PBH 603 Behavioral Health and Social Environment   3 credits

This course provides students an opportunity to examine theories, concepts, and models from the social and behavioral sciences, as they form the basis for health education and public health interventions on a variety of levels. Models of individual and interpersonal health behavior are examined, as well as community and group models of health behavior change. This course also addresses the emerging use of technology and social media in behavioral health interventions.

PBH 604 Epidemiology   3 credits

Epidemiology has long been an integral part of disease prevention and treatment interventions. Recent pandemics have spurred interest in understanding how disease spreads and how to stop the spread. Epidemiology provides valuable insights into what makes people healthy, chronic disease prevention, and a base of evidence to create and test interventions. In this course, you will develop an understanding of disease etiology and surveillance strategies. You will learn how to use data to identify trends in morbidity and mortality, as well as how this data can inform public health policy and best practices.

PBH 609 Critical Issues in Public Health 3 credits

This course examines emerging population-based issues, changing public health policies, and contemporary public health concerns. Students explore current public health issues within the context of their impact on regional, national. and global populations. Critical issues discussed include natural and man-made disasters, food and environmental safety, veterans' health, infectious and chronic diseases, human rights violations, and more.

PBH 610 Environmental Health 3 credits

Where we live, work, and play matters deeply in the health of a community. This course provides you with an opportunity to critically examine environmental health issues, contributing factors, and promising approaches that can be taken to improve the health of environments. You will explore factors that impact on air, water, land, and climate. This course will delve deeply into the intersects of health, environment, and social justice throughout the term. Policies that impact the safety of communities will be explored through a sociopolitical lens. Over this term, you will have several opportunities to identify, research, and propose strategies to address environmental issues of interest to you.

PBH 613 Program Planning and Evaluation for Public Health 3 credits

This course examines the history and development of health promotion programs as they impact the health of populations. Students hone their skills in applying theory to design, implement, and evaluate programs that competently address cultural, psychological, and behavioral factors impacting public health outcomes.

PBH 647 Vulnerable Populations 3 credits

In this course, students explore the meanings of health and vulnerability at the community and societal levels as well as the factors that contribute to differential access to health care. Selected theories and models for identifying and addressing underlying causes of vulnerability are explored, using social justice as a guiding ethical framework and the lens for viewing controversies, political debates, and opportunities for policy and practice change.

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International Economics, Columbia University,
New York, NY
Department Chair, Undergraduate Business,
College of Liberal Arts and Sciences,
Excelsior University, Albany, NY

MARY BERKERY, PhD
Women's, Gender, and Sexuality History, U.S. History,
Human Rights, Binghamton University (SUNY),
Binghamton, NY
Department Chair, Liberal Arts,
College of Liberal Arts and Sciences,
Excelsior University, Albany, NY

TRACY CALDWELL, PhD
English Literature, State University of
New York at Stony Brook,
Stony Brook, NY
Associate Dean of Liberal Arts,
College of Liberal Arts and Sciences,
Excelsior University, Albany, NY

RYAN CASTLE, MS
Mathematics and Mathematics Education,
Oregon State University, Corvallis, Oregon
Full-time Faculty, Mathematics,
College of Liberal Arts and Sciences,
Excelsior University, Albany, NY

SCOTT V. DOLAN, PhD
Sociology,
University of Albany, Albany, NY
Executive Dean, College of Liberal Arts and Sciences,
Excelsior University, Albany, NY

BEI LIU, PhD
Chemical Engineering, Kansas State University,
Manhattan, KS
Full-time Faculty, Technology and Engineering Science,
College of Liberal Arts and Sciences,
Excelsior University, Albany, NY

MICHAEL JOHNSON, DM
Organizational Leadership,
University of Phoenix, Phoenix, AZ
Department Chair, Engineering Technology, College of
Liberal Arts and Sciences, Excelsior University, Albany, NY

BEN PEARSON, PhD
Modern European History, University of North Carolina
at Chapel Hill, Chapel Hill, NC
Department Chair, General Education and Social Sciences,
College of Liberal Arts and Sciences,
Excelsior University, Albany, NY

CARRIE PRIOR, EdD
Rutgers, The State University of New Jersey,
New Brunswick, NJ
Associate Dean of Technology,
College of Liberal Arts and Sciences,
Excelsior University, Albany NY

CATHERINE SEAVER, PhD
Leadership & Education,
University of the Cumberlands, Williamsburg, KY
Department Chair, Information Technology and
Cybersecurity, College of Liberal Arts and Sciences,
Excelsior University, Albany, NY

GRETCHEN SCHMIDT, MBA, JD
Alliant International (MBA), University of Toledo (JD)
Department Chair, Public Administration and Leadership,
College of Liberal Arts and Sciences,
Excelsior University, Albany, NY

LEAH SCIABARRASI, PhD
Interdisciplinary Studies,
Union Institute and University, Cincinnati, OH
Associate Dean of Business,
College of Liberal Arts and Sciences
Excelsior University, Albany, NY