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EXCELSIOR COLLEGE

School of Business & Technology Catalog

CELEBRATING 40 YEARS

EXCELSIOR COLLEGE®
Start to Finish℠

The Philosophy of Excelsior College

What you know is more important than where or how you learned it.®

About Excelsior College

Excelsior College was founded in 1971 as the external degree program of the New York State Board of Regents. In 1998, the Board of Regents granted the College (then known as Regents College) an absolute charter to operate as a private, nonprofit, independent college. As are all accredited colleges in the state, Excelsior College is a member of The University of the State of New York. Today, the College is governed by a board of trustees comprised of individuals from across the United States who are prominent in the fields of business, education, government, and the professions.

A leader in online and distance learning, Excelsior College awards degrees at the associate and baccalaureate levels in liberal arts, nursing, business, technology, and health sciences, and at the master's level in liberal studies, nursing, and business. Certificate programs are also offered by the Schools of Business & Technology, Health Sciences, Liberal Arts, and Nursing. More than 141,000 persons have earned degrees from Excelsior College.

Excelsior's student body represents a diverse group of adult learners.

- The average age of an Excelsior student is 40; about 55 percent are female, 45 percent are male.
- More than one-third of our enrolled students are from groups historically underrepresented in higher education.
- More than one-quarter of our students are active-duty or reserve military personnel.
- Ten percent of our students come from New York State; the remaining are from the rest of the United States and other nations.

The faculty of Excelsior College, both full-time and adjunct, are drawn from many colleges and universities as well as from industry and the professions. They teach our courses, establish and monitor academic policies and standards, determine degree requirements and the means by which credit may be earned, develop the content for all examinations, and recommend degree conferral to the Excelsior College Board of Trustees.

The Mission of Excelsior College

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

The Vision of Excelsior College

Excelsior College provides global access to quality higher education for adult learners, helping them to overcome barriers of time, distance, and cost. A world leader in the assessment of learning, Excelsior is nationally renowned for its facilitation of degree completion and its advocacy on behalf of adult learners.

Accreditation

Excelsior College is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104, telephone: 267-284-5000. The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

The associate, bachelor's, and master's degree programs in nursing at Excelsior College are accredited by the National League for Nursing Accrediting Commission (NLNAC), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326, telephone: 404-975-5000. The NLNAC 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's degree programs in electrical engineering technology and nuclear engineering technology are accredited by the Technology Accreditation Commission of ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202, telephone: 410-347-7700. ABET is a specialized accrediting agency recognized by the Council for Higher Education Accreditation (CHEA).

The bachelor's degree programs in accounting (NYS CPA Track) and business are accredited by the International Assembly for Collegiate Business Education (IACBE), 11257 Strang Line Rd., Lexena, KS 66215, telephone: 913-631-3009. IACBE is a specialized accrediting agency recognized by the Council for Higher Education Accreditation (CHEA).

All the College's academic programs are registered (i.e., approved) by the New York State Education Department.

Recognition

The Master of Arts in Liberal Studies program has been accepted into full membership by the Association of Graduate Liberal Studies Programs (AGLSP).

The American Council on Education's College Credit Recommendation Service (ACE CREDIT) has evaluated and made college credit recommendations for Excelsior College Examinations.

The National League for Nursing (NLN) designated the Excelsior College School of Nursing as a 2011–2016 NLN Center of Excellence in Nursing Education in recognition of the College's sustained achievements in creating environments that promote student learning and professional development.

A Message from the Dean

Dear Student:

Welcome and congratulations on your decision to pursue your educational goals with Excelsior College!

Excelsior College offers our students a large variety of options toward earning their degree. There is no limit on transfer credit! We accept credits from other accredited colleges and universities, industry-approved training credits, military training credits, and a variety of certifications and proficiency examinations, along with earning college credit for work and life experiences. As such, we provide a flexible way to progress toward completing your business or technology degree while balancing the demands of work and family. Since 1971, Excelsior College has helped more than 141,000 students achieve their dream of earning a college degree. That is our goal as an institution.

Among other things, the School of Business & Technology catalog describes the breadth of degree and concentration options that we offer. It is an exciting time for the School of Business and Technology! We continue to grow our ABET-accredited degree programs in engineering technology, our IACBE-accredited Bachelor of Science in Business degree, and our MBA programs, along with offering new degree programs in professional studies for both the business and technology disciplines. We are also developing new concentrations that will help our students stay competitive in upcoming industries and corporations! I encourage you to read our catalog and take full advantage of the many resources available so that your college experience is successful.

Thank you for choosing the Excelsior College School of Business & Technology.

Best wishes for your success!

Dr. Jane LeClair, Dean
School of Business & Technology

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LIMITATIONS

Information in this catalog is current as of October 2011, and is subject to change without advance notice.

CHANGES IN COLLEGE POLICIES, PROCEDURES, AND REQUIREMENTS

The College reserves the right to modify or revise the admission requirements of any program of the College; 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 enrolled students so long as they actively pursue their degree requirements. However, in the event that it is necessary to make program changes for enrolled 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.

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Printed in the USA, October 2011.

Excelsior College 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.

Excelsior College does not discriminate on the basis of age, color, religion, creed, disability, marital status, veteran status, national origin, race, gender, or sexual orientation in the educational programs and activities which it operates. Portions of this publication can be made available in a variety of formats upon request. Inquiries should be directed to the Affirmative Action Officer, Excelsior College, 7 Columbia Circle, Albany, NY 12203-5159.

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

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Your Personalized MyExcelsior Account:
www.excelsior.edu/MyExcelsior

Admissions: toll free 888-647-2388, ext. 27

College Publications, Applications, and Forms:
www.excelsior.edu/publications

Student Policy Handbook:
www.excelsior.edu/StudentPolicyHandbook

Fee Schedules, Financial Aid, and Scholarships:
www.excelsior.edu/fees
www.excelsior.edu/FinancialAid
www.excelsior.edu/scholarships

Excelsior College Learning Resources:
www.excelsior.edu/library
www.excelsior.edu/bookstore
www.excelsior.edu/MyExcelsior, click on the Resources tab

Student Online Success Guide
www.excelsior.edu/SuccessGuide

Excelsior College Online Writing Lab (OWL):
www.excelsior.edu/OWL

Free Writing Resources (*scheduled to debut Fall 2011*),
Online Software Skills Training through Atomic Learning
***(EC course and exam registrants only)*,**
Online Tutoring Services through SMARTHINKING™
(EC course and exam registrants only)
www.excelsior.edu/MyExcelsior, click on the Resources tab

Excelsior College Community Resources:
www.excelsior.edu/MyExcelsior, click on Communities tab

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Important Information for All Students

Student Policy Handbook

The Excelsior College *Student Policy Handbook* is your resource for understanding the academic and administrative policies that are important to your academic success. It includes a wide range of information from 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 College 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.

Policies and procedures that apply only to a specific degree program are listed in the appropriate school catalog. You may download a copy of the *Handbook* from our Web site. File your *Handbook* with your other important academic papers and this program catalog for easy reference.

Standardized Testing Participation

Students have a responsibility to participate in standardized tests (an example is the "Proficiency Profile" published by Educational Testing Services) that may be required during the period of their enrollment. These tests may be in addition to regular coursework and are required to gather critical information on achievement of student learning. Students are expected to actively participate and make every effort to do their best on these assessments to produce scores that accurately reflect their abilities. The results from these assessments will not be part of the course grade but are crucial for the purpose of program improvement and are frequently required by regulators and accreditation agencies. Participation in these assessments contributes toward increasing the value of the degree by providing evidence of student learning to external organizations, employers, and the general public.

Excelsior College Web Site

Through the College's Web site, 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 tailored to your specific academic program as well as general announcements from the College.

General Education Outcomes for All Undergraduate Degree Programs

Each undergraduate degree program has a strong arts and sciences component designed to help you develop a broad-based understanding of multiple disciplines, provides a breadth of academic experience to enrich your life and allows you to become more informed and engaged as a citizen and a lifelong learner in an increasingly complex and changing world. This arts and sciences component, offered in a delivery model of flexibility, quality, and accessibility that is based on adult learning theory, helps you to integrate knowledge from multiple sources and experiences in diverse ways of knowing. These guiding principles have thus formed the six learning goals for General Education at Excelsior College.

1. **Communication and Oral Expression.** Excelsior students will be able to express themselves effectively in English, both orally and in writing, and with clarity, persuasiveness, and coherence using standard conventions of English.
2. **Mathematics and Scientific Method.** Excelsior students will utilize scientific reasoning and basic mathematical calculations in problem solving in their public discourse.

3. **Information Literacy.** In this age of information proliferation due to rapid technological advances, students will have to learn to discern information critically. They will have to learn to identify the amount and type of information needed, to understand where to locate, effectively access that information, evaluate the source of the information, and use it as per legal and ethical considerations.
4. **Human Thought and Creativity.** Excelsior students will be able to explain, interpret, critique, create, or perform works of human creativity at an informed level.
5. **Diversity and Global Understanding.** Excelsior students will have an understanding and appreciation of the complexities of diversity and will be able to interact effectively with people from backgrounds and cultures different from their own. They will have gained a global perspective that is grounded in the issues, trends, and opportunities that connect nations and communities around the world. They will challenge their own sense of "self" vis-à-vis an understanding of those with different thoughts, beliefs, traditions, behaviors, and understandings.
6. **Social Responsibility and Civic Engagement.** Excelsior students will acknowledge the importance of social responsibility and civic engagement and the behaviors that support these beliefs.

For more information on the General Education goals and outcomes please visit:

www.excelsior.edu/gened

Technology Literacy

Excelsior College Definition of Technology Literacy [Based on State Educational Technology Directors Association (SETDA)]

Excelsior College defines technology literacy as the ability to identify and responsibly use appropriate technology to communicate, solve problems, and 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.

Baseline Technology Skills and Resources

1. Prior to being admitted to Excelsior College, all students should be knowledgeable in the use of a personal computer (Windows or Macintosh). Entering students should have the ability to
   - use a personal computer,
   - use office automation programs to create, edit, store and print documents,
   - use electronic communication tools, and
   - search and retrieve information from electronic resources to complete assignments and activities.
2. Students must have reliable access to a computer with Internet connectivity.
3. Student's computer and operating system must meet the minimal technical requirements as noted in the Excelsior College Computer System Requirements (**www.excelsior.edu/system-requirements**).
4. Students must be able to utilize required software applications.
5. Students need to utilize the Excelsior College Web site to access information, resources, and the Message Center, and to participate in activities. See the Excelsior College Electronic Use policy (**www.excelsior.edu/electronic-use-policy**).
6. Students are required to conduct themselves appropriately and professionally at all times, including online.

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Important Information for All Students

About Test Preparation and Tutorial Services

The College offers Excelsior College® Examinations designed to help you advance your academic objectives through independent study. A variety of learning resources including content guides, guided learning materials, and practice tests are available directly from Excelsior. These resources are prepared by Excelsior College so you can be assured that they are current and cover the content you are expected to master for the exams. Along with your own desire to learn, these resources are usually all that you need to help you succeed.

Some students may seek additional assistance or may be contacted by tutorial firms and test-preparation companies offering their own products and services. The College is not affiliated with any of these firms and does not endorse the products or services of any of these vendors since we do not review their materials for content or compatibility with Excelsior College Examinations.

To help you become a well-informed consumer we suggest, before you make any purchase decision regarding study materials provided by organizations other than Excelsior College, that you consider the points outlined on our Web site.

www.excelsior.edu/testprep

www.excelsior.edu

www.excelsior.edu/myexcelsior

Important: It is important for you to keep us informed of your current contact information, so we can reach you. You can update your address, phone numbers, fax number and email preference on our Web site, through your MyExcelsior user account, or you can call us with this information.

Choosing a Degree Program in Business

You may find it helpful to compare the requirements for each degree with your own educational background and career aspirations to determine the best degree for you. Professionals in your field of choice may be able to advise you about the preparation necessary for particular areas, and graduate school admissions counselors can advise you about requirements for entry into specific graduate schools. Excelsior College advisors can offer you general information about how previous study might apply to degree requirements and about your general options for continued study.

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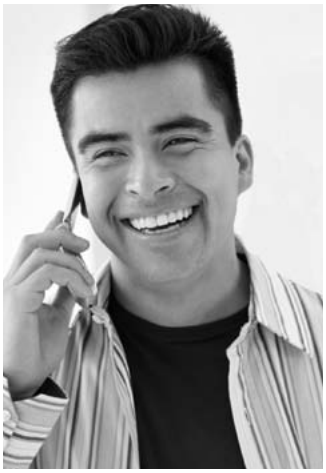
Requirements and Policies for *ALL* Business Degrees

Every Excelsior College business degree program requires a specific number of semester hours of credit in each of its component areas. These areas include an arts and sciences component, a business or career/professional component, and a free elective component in which you may earn credits through applicable coursework or examinations in subject areas of interest to you.

In the following pages, you will find a chart relevant to each degree program, which provides a graphic representation of the credit needed to fulfill the requirements.



You are subject to the degree requirements in effect at the time of your 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 professional practice. Changes may affect both enrolled and prospective students. It is your responsibility to keep informed of such changes. We make every effort to inform you of changes as they occur. Current information about degree requirements is posted on our Web site. Information about changes to degree requirements is also made available on our Web site.

Your Personalized MyExcelsior Account:
www.excelsior.edu/MyExcelsior

Student Policy Handbook:
www.excelsior.edu/StudentPolicyHandbook

Admissions:
toll free 888-647-2388, ext. 27

Business Programs Advising Team:
toll free 888-647-2388, ext. 1331

Excelsior College Community Resources:
www.excelsior.edu/MyExcelsior, click on Communities tab

Note: **Where an Excelsior College exam or course will satisfy a requirement, it is shown in [brackets]. Excelsior College® Examinations (ECE) have an "x" after the department, for example, [BUSx310 Ethics: Theory & Practice].**

Policies Specific to the Business Programs

The Excelsior College *Student Policy Handbook* is your resource for understanding the academic and administrative policies that are important to your academic success. It includes a wide range of information from 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.

Policies and procedures that apply specifically to the business degree programs are listed on the following pages. File your handbook with your other important academic papers and this program catalog for easy reference.

Second Degree Restrictions

No student is permitted to earn a second business degree in the same or similar area of study or focus. Please refer to your *Student Policy Handbook* for specific information.

Minimum Academic Average

You must have a cumulative grade point average of C (2.00) or better in order to qualify for graduation from Excelsior College. In addition, only course or examination grades of C (or better), P (Pass), or a score acceptable to the Excelsior College faculty will qualify toward satisfying the business requirements. Refer to the *Student Policy Handbook* for complete information.

Time Limit on Transfer of Credit

Only those business courses completed within 20 years of the date of your enrollment may be used for credit toward the business component of the Associate in Science in Business and all Bachelor of Science business degrees. However, credit earned more than 20 years prior to your enrollment may be applied to the arts and sciences component requirements. Also, nonduplicative business credit earned more than 20 years prior to your enrollment may be applied as free elective credit.

There is no time limit on the transfer of credit to any component of the Associate in Applied Science in Administrative/Management Studies degree or the Bachelor of Professional Studies in Business and Management degree.

Diversity

Excelsior College encourages you to plan your degree program to include study of the perspectives of various ethnic and cultural groups as well as investigation of the fundamental assumptions of Western civilization.

Sources of Credit Applicable Toward Your Degree

There are a variety of means by which you may earn credit for your degree including Excelsior College online or CD-ROM courses, campus-based courses, courses offered at a distance, Excelsior College® Examinations (ECEs), and accredited proficiency examinations. All transfer credit must have a minimum grade of C–.

Information about acceptable examination programs can be found in our publication, *A Student Guide to Credit by Examination at Excelsior College*, available for download at our Web site.

Requirements for *All* Degree Programs

Written English Requirement (WER)

Students are required to demonstrate competence in expository writing in English by completing one of the following for the associate degree and two for the bachelor's degree:

1. **Examination:** Successful completion of an approved college-level proficiency examination such as:
   a. Excelsior College® Examinations (ECE), **ENGx111 English Composition** (this completes the written English requirement for the bachelor's degree)
   b. UExcel™ College Writing examination
   c. Advanced Placement (AP) English Examinations

   Note: Excelsior College does not accept the CLEP General Examination in English Composition with Essay toward this requirement.

2. **College coursework:** Successful completion of one college course for the associate degree or two college courses for the bachelor's degree

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(minimum three semester- or four quarter-hour credits; minimum grade of C) from one of the following options:

a. Writing courses such as Excelsior College's **ENG 101 English Composition**, **ENG 201 Writing for the Professions**, or **MLS 500 Graduate Research and Writing** (some restrictions apply).

b. Two institutionally designated writing-intensive, writing-emphasis courses.

c. Two applied writing courses. The applied writing courses must focus on different applications of the writing process.

Note: Coursework must be from an English-speaking institution. English as a Second Language courses may not be used to satisfy this requirement.

3. **Statement of proficiency:** 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.

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

Courses or examinations used to fulfill the written English requirement may not be used to satisfy the humanities requirement. Students who have a bachelor's degree (or higher) from a U.S. regionally accredited college/university are exempt.

Following are examples of courses from other colleges and universities that may apply toward the written English requirement:

- English Composition
- Expository Writing I
- Freshman Composition
- Effective Writing
- Introduction to Writing
- College Writing I

Information Literacy

Information Literacy Requirement

Students are expected to demonstrate competency in information literacy. The standards, performance indicators, and outcomes for this requirement were selected from the Association of College and Research Libraries (ACRL) Information Literacy Competency Standards for Higher Education. Competency will be assessed through a one-credit pass/fail course offered online by Excelsior College **[INL 102 Information Literacy]** or through successful completion of a course taken at a regionally accredited college covering comparable content.

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.

Students seeking additional information should check the Excelsior College Web site or consult with their academic advising team.

Associate Degree Programs in Business

For the business student, the Excelsior College School of Business & Technology offers a number of relevant programs at the associate degree level. Many focus specifically on high-growth industries with exciting career opportunities. And you may apply workplace and military training as credit, accelerating the path to your degree.

Excelsior College offers a virtual student chapter of the Society for Human Resource Management (SHRM).

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Associate in Applied Science in Administrative/ Management Studies

While this degree program was designed specifically to meet the needs of those with military backgrounds by recognizing the college-level learning that takes place as a result of military training, the program may also be appropriate for some non-military students. Graduates of the Associate in Applied Science in Administrative/Management Studies degree program who are interested in continuing on to baccalaureate-level study should contact the business advising team for advice on the preferred program of study. See Chart 1 on the following page for a graphic representation of credit required for this degree program. A description of outcomes and specific degree requirements follows.

Program Outcomes

We expect that as an Excelsior College Associate in Applied Science in Administrative/Management Studies graduate you will be able to:

1. Write clear, correct, effective prose.
2. Argue a point using appropriate supporting evidence.
3. Analyze a written or spoken argument.
4. Read and analyze college-level prose.
5. Demonstrate sensitivity to human issues in administration.
6. Demonstrate recognition of the significance of business and administration in the human endeavor.
7. Demonstrate introductory college-level knowledge in one or more of the following subject areas: biology, chemistry, physics, earth science, geology, mathematics.
8. Demonstrate introductory college-level knowledge in one or more of the social sciences: history, anthropology, sociology, psychology, geography, economics, political science.
9. Demonstrate a working knowledge of administrative skills within an organization.

Degree Requirements

60 credits

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

- 20 credits minimum in the arts and sciences
- 20 credits minimum in the career component
- 20 credits of electives (to include information literacy)

I. Arts and Sciences Component

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 degree 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 College's written English requirement, and 3 credits in a humanities area other than writing;
- 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.

Note: Excess credits in arts and sciences or in the career component may be applied toward electives.

CHART 1

Associate in Applied Science Degree in Administrative/ Management Studies

AAS | **Total Degree Credits Required: 60**

Arts and Sciences Component

	Credit Hours
Humanities Requirement (3 credits must satisfy the Written English Requirement and 3 credits must be in subjects other than writing)	6
Social Sciences/History Requirement (3 credits must be in behavioral sciences subjects)	6
Natural Sciences/Mathematics (**3 credits in natural sciences** and 3 credits in mathematics)	6
Arts and Sciences Electives	2
Total Arts and Sciences	**20**

Career Component*

Total Career Component	**20**

Elective Component

Free Elective Component (includes 1-credit Information Literacy Requirement)	20
Total Elective Component	**20**

***Beginning January 1, 2012, an associate degree capstone course will be required.**

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 (see page 3). The remaining 3 credits may not be in subjects such as written English composition, Freshman English, or lower-level applied, technical, or professional writing.

Humanities subjects include, but are not limited to, art, music, foreign language, literature, humanities, philosophy, religion, speech/communications, and ethics.

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/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, calculus, astronomy, geology, and oceanography.

Arts and Sciences Electives

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

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II. Career Component

The Associate in Applied Science in Administrative/Management Studies degree requires a minimum of 20 credits in the career component. The career component consists of business credits related to your career field and primarily applies to those with military backgrounds.

Note: Beginning January 1, 2012, an associate degree capstone course will be required.

The following list shows the classification of military career fields according to the Associate in Applied Science, Administrative/Management Studies degree program. Career fields have been categorized to assist you in designing your program. If you have earned examination or coursework credit beyond military educational experience, you may choose another degree area that better fits your educational goal. Career fields that do not appear on this list may be appropriate for other Excelsior College degrees.

Military Career Fields

Army MOSs

00Z, 11B, 11C, 11H, 11M, 11Z, 13B, 13C, 13D, 13E, 13F, 13M, 13P, 13R, 13T, 13Z, 14D, 14J, 14L, 14M, 14R, 14S, 14Z, 18B, 18C, 18D, 18E, 18F, 18Z, 19D, 19K, 19Z, 25Z, 37F, 38A, 43M, 57E, 71D, 71G, 71L, 71M, 73C, 73D, 73Z, 75B, 75F, 75H, 76J, 79R, 79S, 79T, 88H, 88K, 88M, 88N, 88X, 88Z, 91B, 91M, 92A, 92G, 92M, 92R, 92Y, 92Z, 93C, 93F, 93P, 95B, 95C, 95D, 96B, 96D, 96H, 96R, 96U, 96Z, 97B, 97E, 97L, 97Z, 98C, 98G, 98H, 98J, 98K, 98Z, and related Warrant Officer MOSs

Navy Ratings

AC, AK, AZ, BM, CTA, CTI, CTO, CTR, DK, IS, LN, MA, MS, NC, PC, PN, QM, RP, SH, SK, SM, YN, and related Warrant Officer and Limited Duty Officer Ratings

Marine Corps MOSs

01501602303103203303 32, 0340350352, 0369, 0810842, 0844, 0861171181811812, 2622629, 2632643, 2652672673, 2674, 2675, 3043, 3044, 3112, 3383423453529, 3533, 3537, 4425815812, 5836396597047324, 8438618915

Coast Guard Ratings

BM, IV, PS, QM, RD, SK, SS, TC, YN, and related Warrant Officer Ratings

III. Electives

The Associate in Applied Science degree in Administrative/Management Studies allows room for up to 20 credits in electives. Applied to this component is the one-credit information literacy requirement. See page 4 for more information about this requirement.

Although you may have already fulfilled the minimum credit requirements in the arts and sciences and career component of your degree, you may still need to earn additional credit to fulfill the total 60-credit requirement. To do this, you may apply any of the following:

- arts and sciences credit above the minimum required
- career component credit above the minimum required
- elective credit

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. 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 two credits in physical education activity courses may be applied to the degree.

Note: **Where an Excelsior College exam or course will satisfy a requirement, it is shown in [brackets]. Excelsior College® Examinations (ECE) have an "x" after the department, for example, [BUSx310 Ethics: Theory & Practice].**

Associate in Science in Business

This degree is appropriate for you if your future plans include a career that requires an associate degree. Because our Associate in Science in Business degree articulates fully with the Excelsior College bachelor's degrees, it is also an appropriate step toward a bachelor's degree in business. Refer to Chart 2 on page 12 for a graphic representation of required credit for the Associate in Science in Business degree. A description of outcomes and specific degree requirements follows.

Program Outcomes

We expect that as an Excelsior College Associate in Science in Business graduate you will be able to

1. Demonstrate a fundamental knowledge of business administration.
2. Apply quantitative fundamentals to problem solving in the business world.
3. Demonstrate basic knowledge of the principles of macroeconomics, microeconomics, and statistics.
4. Demonstrate effective oral and written communication.
5. Demonstrate understanding of culture, human behavior, and the relationship between business and society.
6. Demonstrate a working knowledge of computer usage within business disciplines.

Degree Requirements

60 credits

The Associate in Science in Business degree requires a minimum of 60 credits, distributed as follows:

- 33 credits minimum in the arts and sciences
- 21 credits minimum in the business component
- 6 credits of electives (to include information literacy)

I. Arts and Sciences Component

Arts and sciences are those areas of study classified as humanities, social sciences/history, and natural sciences/mathematics. The Associate in Science in Business degree requires a minimum of 33 credits in the arts and sciences distributed as follows:

Humanities

A minimum of 6 credits is required in this area. At least 3 credits must be earned in disciplines other than writing such as art, music, literature, foreign language, philosophy, religion, and speech, etc. Examinations or courses used to satisfy the written English requirement may not be applied toward the humanities requirement.

Social Sciences/History

A minimum of 12 credits is required in this area. At least two courses (minimum of 6 credits total) must be earned in social sciences/history **in addition to Microeconomics** and **Macroeconomics**.

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

Natural Sciences/Mathematics

A minimum of 9 credits must be earned in natural sciences/mathematics. You are required to complete one course in **Precalculus (or higher math)**, one course in **Statistics**, and **one course in a natural science**.

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

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

Arts and Sciences Electives

A maximum of 3 credits may be earned in arts and sciences electives.

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Arts and Sciences Core Requirements

You must earn a grade of C or better in each of the following five courses required as part of the Associate in Science in Business degree program.

- ***Written English Requirement***

  At least 3 credits must come from a course that satisfies the written English requirement (see page 3).

- ***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]**.

- ***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].**

- ***Mathematics***
  (at the level of Precalculus or higher)

  Study of exponents, logarithms, polynomial equations, solution of linear and quadratic equations in more than one unknown, determinants, matrices, permutations and combinations, mathematical induction, binomial theorem, probability, arithmetic and geometric progressions.

  Note: This course typically precedes calculus in a college math sequence. Elementary or intermediate algebra courses will not apply toward the mathematics requirement.

  The mathematics requirement may be satisfied with credits from coursework in any of the following subjects: college algebra, precalculus, **[MAT 116 Pre-Calculus Algebra]**.

- ***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 or inferential statistics, **[BUS 233 Business Statistics].**

Reminder: **All credit you apply to the business component of your degree must have been earned fewer than 20 years prior to your enrollment date.**

II. Business Component

The business component includes core requirements that help you gain basic knowledge in business administration and the underlying discipline of decision making.

Note: Beginning January 1, 2012, an associate degree capstone course will be required.

The Associate in Science in Business degree requires a minimum of 21 credits in the business component.

Business Core Requirements

Following are typical course titles for the required business core courses. Refer to the course description section beginning on page 48 for content information. In general, a course or exam worth 3 credits will satisfy each core requirement.

- ***Financial Accounting***

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

- ***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]**

- ***Introduction to Business Law (United States Business Law)***

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

- ***Computers***

  Subjects that may be used to satisfy this component include, but are not limited to, computer programming, computer science, data processing, introduction to management/computer information systems. Word processing credit alone will not satisfy this requirement. **[BUS 220 Workplace Communication with Computers]**

  There are many Excelsior College courses that will apply to the computer requirement. A maximum of 6 credits in computers may be applied to the business component of the Associate in Science in Business degree. Please refer to our Web site or contact your advising team for more information on our course offerings.

- ***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 240 Principles of Management]**.

- ***Principles of Marketing***

  Subjects that may be used to satisfy this component include, but are not limited to, introduction to marketing, marketing concepts, marketing principles, **[BUS 250 Principles of Marketing]**.

Business Electives

For the Associate in Science in Business degree, you will earn most of the required business credit for the degree in the process of completing the core coursework. You may still find room in your plan of study, however, for at least one (or more) business elective course or exam. The bachelor's degree programs provide more opportunities for business electives. Refer to the Bachelor's Degree Programs in Business section for specific information regarding those programs.

- ***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 in the section titled Bachelor of Science in Business Concentrations (pp. 20–24). Courses that are either required or suggested for concentrations are considered business electives for the Associate in Science in Business degree.

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III. Additional Credit Component

Although you may have already fulfilled the minimum credit requirements in the arts and sciences and business components of the Associate in Science in Business degree, you may still need to earn additional credit to fulfill the total credit requirement of 60 credits.

To do this, you may apply any of the following:

- Arts and sciences credit above the minimum required.
- Business credit above the minimum required.
- Free elective credit. A maximum of 2 credits from physical education activity courses may be applied to the degree.

Information Literacy Requirement

Students are expected to demonstrate competency in information literacy with successful completion of the one-credit information literacy requirement. See page 4 for more information about this requirement.

CHART 2

Associate in Science in Business

Total Degree Credits Required: 60

AS

Arts and Sciences Component

	Credit Hours
Written English Requirement	3
Humanities Requirement (3 credits must be in subjects other than writing)	6
Social Sciences/History Requirement (must include **Microeconomics**, **Macroeconomics**, and 6 additional credits)	12
Natural Sciences/Mathematics Requirement (must include a math course at the level of **Precalculus or above**, **Statistics**, and **one course in natural sciences**)	9
Arts and Sciences Electives	3
Total Arts and Sciences Component	**33**

Business Component

	Credit Hours
Core Requirements *	
Financial Accounting	
Managerial Accounting	
Introduction to Business Law (United States Business Law)	
Computers	
Principles of Management	
Principles of Marketing	
Business Electives	
Minimum Business Component	**21**

*Beginning January 1, 2012, an associate degree capstone course will be required.

Additional Credit Component

	Credit Hours
Any Collegiate-level Study May include any excess credit in Arts and Sciences and Business areas.	
Information Literacy	1
Total Additional Credit Component	**6**

Bachelor's Degree Programs in Business

For the business student, the Excelsior College School of Business & Technology offers a number of relevant bachelor's degree programs. Many focus specifically on high-growth industries with exciting career opportunities. And you may apply workplace and military training as credit, as appropriate, accelerating the path to your degree.

AFFILIATE OF SHRM SOCIETY FOR HUMAN RESOURCE MANAGEMENT

Excelsior College offers a virtual student chapter of the Society for Human Resource Management (SHRM).

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Requirements and Policies Specific to the Bachelor's Degrees in Business

Every Excelsior College 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 College BS in Business (*with concentration)* and BS in Accounting (*New York State CPA Track*) are comprised of three major components: arts and sciences, business, and additional credit. The three components and their respective requirements are explained in the following sections.

You are subject to the degree requirements in effect at the time of your 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 professional practice. Changes may affect both enrolled and prospective students. It is your responsibility to keep informed of such changes. We make every effort to inform you of changes as they occur. Current information about degree requirements is posted on our Web site. Information about changes to degree requirements is also made available on our Web site.

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Excelsior College Online Writing Lab (OWL):
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The Excelsior College *Student Policy Handbook* is your resource for understanding the academic and administrative policies that are important to your academic success. It includes a wide range of information from 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.

Policies and procedures that apply specifically to the bachelor's programs in business are listed on the following pages. File your handbook with this program catalog and your other important academic papers for easy reference.

Note: **Where an Excelsior College exam or course will satisfy a requirement, it is shown in [brackets]. Excelsior College® Examinations (ECE) have an "x" after the department, for example, [BUSx310 Ethics: Theory & Practice].**

Bachelor of Science in Business (with concentrations)

Bachelor of Science in Business to Master of Business Administration (Dual Degree Track)

Bachelor of Science in Accounting (New York State CPA Track)

The program educational outcomes and specific degree requirements for the degree programs listed above are as follows.

Program Educational Outcomes

1. Apply general and discipline specific concepts and methodologies to identify, analyze and solve business problems.
2. Demonstrate an individual desire and commitment to remain current with and adaptive to changing business conditions 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 business environment.
4. Communicate effectively in a professional business environment.
5. Perform ethically and professionally in business and society.
6. Attain increasing levels of responsibility and leadership in one's chosen career field.

Program Outcomes

We expect that as an Excelsior College baccalaureate business graduate you will be able to:

1. Demonstrate comprehension of the principles of accounting, marketing, finance, management and economics.
2. Demonstrate comprehension of the legal and social environment of business.
3. Demonstrate comprehension of the global environment of business.
4. Apply ethical considerations to the obligations and responsibilities of business.
5. Apply business tools to real-world situations.
6. Employ information literacy techniques.
7. Communicate effectively, orally and in writing.
8. Apply business concepts and functions in an integrated manner.

Reminder: **All credit you apply to the business component of your degree must have been earned fewer than 20 years prior to your enrollment date.**

Degree Requirements

I. Arts and Sciences Component

Arts and sciences are those areas of study classified as humanities, social sciences/history, and natural sciences/mathematics. Excelsior College 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
- 9 credits in the humanities (may include Ethics) **in addition to** credit for the written English requirement
- 15 credits in social sciences/history to include **Microeconomics** and **Macroeconomics**

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- 9 credits in natural sciences/mathematics to include a math course at the level of **Precalculus** or above, **Statistics**, and one course in natural sciences
- up to 21 credits in any arts and sciences area

Note: 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. At least three credits must be in humanities subjects other than writing.

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 9 credits in the social sciences/history in addition to Microeconomics and Macroeconomics.

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

Natural Sciences/Mathematics

You must successfully complete a minimum of 9 credits in natural sciences/mathematics to include a 3-credit course in **Precalculus (or higher math)**, a 3-credit course in **Statistics**, and a **3-credit course in a natural science**.

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

Note: 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.

- ***Written English Requirement***

  At least 6 credits must be taken to satisfy the written English requirement (see page 3).

- ***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]**.

- ***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]**.

- ***Mathematics***
  (at the level of Precalculus or higher)

  Study of exponents, logarithms, polynomial equations, solution of linear and quadratic equations in more than one unknown, determinants, matrices, permutations and combinations, mathematical induction, binomial theorem, probability, arithmetic and geometric progressions.

  Note: This course typically precedes calculus in a college math sequence. Elementary or intermediate algebra courses will not apply to the mathematics requirement.

  The mathematics requirement may be satisfied with credits from coursework in any of the following subjects: college algebra, precalculus, **[MAT 116 Pre-Calculus Algebra]**.

- ***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 or inferential statistics, **[BUS 233 Business Statistics].**

II. Business Component

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 (if you choose a concentration). A grade of C or better is required for applicable credit.

Reminder: **All credit you apply to the business component of your degree must have been earned fewer than 20 years prior to your enrollment date.**

Business Component Core Requirements

Following are typical course titles for the required business core courses. Refer to the course description section of the catalog beginning on page 48. In general, a course or exam worth three credits will satisfy each core requirement.

- ***Financial Accounting***

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

- ***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].**

- ***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]**.

  Non-CPA concentration students may apply credit from a course in business law or legal environment of business.

- ***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, introduction to management/computer information systems. Word processing credit alone will not satisfy this requirement. **[BUS 220 Workplace Communication with Computers]**

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There are many Excelsior College courses that will apply to the computer requirement. Please refer to our Web site or contact your advising team for more information. A maximum of 9 credits in computer courses may be applied to the business component of all baccalaureate business degrees (with the exception of the Bachelor of Science in Business degree with a concentration in Management Information Systems).

- ***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 240 Principles of Management]**.

- ***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 250 Principles of Marketing]**.

- ***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].**

  Note: Courses in personal finance will not satisfy this requirement.

- ***Production/Operations Management***

  Subjects that may be used to satisfy this business component core requirement include, but are not limited to, introduction to operations management, operations management, production management, **[BUS 425 Operations Management].**

- ***Business Policy***

  You must take BUS 495 Business Strategy. **Transfer courses are not applicable toward the business policy core requirement.**

Additional Business Component Requirements

All students in the **Bachelor of Science in Business (with concentrations)** and **Bachelor of Science in Accounting (New York State CPA Track)** programs must complete coursework in the areas of ethics and organizational behavior. Upper-level business coursework is also required. To be considered upper-level, a course must be taken at a four-year college or university and must be junior- or senior-level. Credit earned at community or junior colleges is never considered applicable toward upper-level Excelsior College baccalaureate degree requirements. Specific descriptions of the required subject areas follow.

- ***Ethics***

  Subjects that may be used to satisfy this component include, but are not limited to, business ethics, introduction to ethics, biomedical ethics, **[BUS 323 Business Ethics, BUSx310 Ethics Theory & Practice].**

  Note: Depending on the content, the ethics course may be classified as business credit or as arts and sciences credit.

- ***Organizational Behavior***

  Subjects that may be used to satisfy this component include, but are not limited to, behavior in organizations, **[BUS 311 Organizational Behavior, BUSx315 Organizational Behavior].**

  Note: Depending on the content, the organizational behavior course may be classified as business credit or as arts and sciences credit.

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 (pages 20–24 in this catalog). Courses that are either required or suggested for concentrations are considered business electives for students in the Bachelor of Science in Business degree with a concentration in General Business. For students enrolled in concentrations, courses from other concentrations are considered business electives.

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 College 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 College business faculty as upper level.

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

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

- Business Communication
- Business Writing
- Consumer Finance
- Personal Finance

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

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

III. Additional Credit Component

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 BS 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 two credits for physical education activity courses may be applied.

Information Literacy Requirement

Students are expected to demonstrate competency in information literacy. See page 4 for more information about the information literacy requirement.

Note: Where an Excelsior College® Examination or course will satisfy a requirement, it is shown in **[brackets]**. Excelsior College Examinations have an "x" after the department e.g., **[BUSx310 Ethics: Theory & Practice]**.

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Concentration Requirements

There are requirements that apply to all Bachelor of Science degree programs in business and accounting. Refer to pages 14–19 for a description of requirements common to these degrees. In addition to those common requirements, you must also satisfy requirements specific to your chosen concentration. Those specific degree requirements are found on the following pages. Charts relevant to each concentration begin on page 29 and provide a graphic representation of the credit needed to fulfill all the requirements for each concentration.

The baccalaureate degree program in business offers the following concentrations:

- Finance
- General Accounting
- General Business
- Global Business
- Hotel, Restaurant and Tourism Management
- Management of Human Resources
- Marketing
- Operations Management
- Management Information Systems
- Risk Management and Insurance

Bachelor of Science in Business **Concentrations**

Finance

See Chart 5, page 31.

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.

Subject Requirements for the Finance Concentration

15 credits are required in this concentration area. At least **9** must be upper-level.

I. Required subjects
   - A. Advanced Financial Management (sometimes called Advanced Corporate Finance)
   - B. Financial Markets and Institutions (or Money and Banking)
   - C. Securities Analysis (or Portfolio Management)

II. Additional credit in the concentration may be earned from courses such as commercial banking management, international finance, management of financial institutions, real estate, risk and insurance, and other related courses, (with approval), **[BUS 320 Entrepreneurial Financing, ACC 350 Fraud Prevention & Detection]**.

General Business

See Chart 4, page 30.

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 College 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.

General Accounting

See Chart 5, page 31.

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. Excelsior College offers both a general accounting concentration and a NYS CPA track accounting degree. See page 25 for a description of the Bachelor of Science in Accounting, NYS CPA track degree.

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.

Subject Requirements for the General Accounting Concentration:

15 credits are required in this concentration area. At least **9** must be upper-level.

I. Required subjects
   - A. Intermediate Accounting I
   - B. Intermediate Accounting II
   - C. Cost Accounting **[ACC 360 Cost Accounting]**
   - D. Taxation (United States tax)

II. Additional credit in the concentration may be earned from courses such as advanced accounting, auditing, fund accounting, international accounting, and other related courses with approval **[ACC 350 Fraud Prevention and Detection, ACC 400 Auditing].**

Global Business

See Chart 5, page 31.

The curriculum for the study of global business presents an overview of the current problems and methods of analysis related to the global operations of a business. It focuses on the basic tools of analysis in global operations such as global economic analysis and analysis of the global business environment. It also incorporates study of the techniques of market penetration abroad and the evaluation of investments and financial sources. Expertise in the concentration opens career opportunities in a challenging business world that demands knowledge of global business and economic trends. Such opportunities include entry-level positions in domestic marketing and finance as well as management or entry-level global business positions.

Subject Requirements for the Global Business Concentration

15 credits are required in this concentration area. At least **9** must be upper-level.

I. Required subjects—Business
   - A. International Business **[BUS 435 International Business]**

   and two of the following three:

   - B. International Economics (or International Trade) **[ECON 360 International Economics]**
   - C. International Finance
   - D. International Marketing

II. Additional credit in the concentration may be earned from courses such as export/import management, foreign market analysis, intercultural communication, international accounting, international banking/international monetary theory, international business ethics, international strategy, multinational management, and other related courses, with approval.

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III. Required subjects—Arts and Sciences (applicable only to arts and sciences component requirements—not applicable to the 15 credits in the concentration)

A. International Relations (International Politics) [POL 360 International Politics]

B. Two semesters of the same foreign language

Hotel, Restaurant, and Tourism Management

See Chart 6, page 32.

The objective of this program is to provide current hospitality professionals the flexibility to achieve a bachelor's degree while employed full-time in the field. Its educational strength rests on the backbone of a solid business education with enough specialized course offerings to enhance a unique, career-specific acquisition of knowledge and skills commensurate with industry demands. These demands have been articulated by hospitality owners and operators alike as well as supervisory personnel looking for people who have an understanding of marketing, financial analysis, computer literacy, and a number of other business skills found within the current general business curriculum. More specific skills in leadership management, service systems technologies, cost control, and franchising have been incorporated as specialized requirements to round out the hospitality educational background necessary for success.

Subject Requirements for the Hotel, Restaurant, and Tourism Management Concentration

21 credits are required for this concentration; **9** must be upper-level credits. In addition, at least one credit in Sanitation/Safety is required; this applies toward the free elective area.

I. Required subjects

A. Hotel/Restaurant Cost Control

B. Hospitality Service Systems Technologies [BUS 335 Hospitality Service Systems Technologies]

C. Hotel/Front Office Management

D. Hotel/Restaurant Franchising [BUS 345 Hotel Restaurant Franchising]

E. Hospitality Law [BUS 365 Legal Environment of the Hospitality Industry]

F. Tourism [BUS 260 Fundamentals of Tourism]

II. Additional credits in the concentration

The faculty highly recommends that students take a course in purchasing. Other approved courses in the hospitality management subject area can apply here as well. [BUS 445 Sustainable Hospitality Management]

III. Additional required subject

Sanitation and Safety (applies in the free elective area; cannot be applied to the concentration)

Management of Human Resources

See Chart 5, page 31.

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.

Subject Requirements for the Management of Human Resources Concentration

15 credits are required in this concentration area. At least **9** must be upper-level.

I. Required subjects

A. Labor Relations [BUSx360 Labor Relations, BUS 315 Labor Relations]

B. Organizational Behavior [BUSx315 Organizational Behavior, BUS 311 Organizational Behavior]

C. Personnel Administration (sometimes called Human Resource Management **[BUSx410 Human Resource Management, BUS 312 Managing Human Resources]**

II. Additional credit in the concentration may be earned from courses such as collective bargaining, human resource development, industrial psychology, labor economics, organizational development, training and development, and other related courses (with approval), **[BUS 380 Managing Diversity in the Workplace, BUS 452 Business Leadership, SOC 318 Sociology of the Workplace].**

Management Information Systems

See Chart 7, page 33.

The management information systems curriculum is designed to prepare you for a career as a management-oriented, technically proficient information systems professional. It provides an overview of systems design, programming, and implementation. Career options are extensive. Graduates in this field are in demand as information systems consultants, programmer analysts, and computer specialists in a wide range of public and private organizations.

Subject Requirements for the Management Information Systems Concentration

18 credits are required in this concentration area. At least **9** must be upper-level.

I. Required subjects

A. A business programming language (C, C++, PASCAL) **[IT 210 Object Oriented Programming]**

B. Database Management **[IT 370 Database Management Systems]**

C. Data Communications or Telecommunications or Networking **[IT 350 Business Data Communication]**

D. Systems Analysis and Design **[IT 418 Software Systems and Design]**

II. Additional credits in the concentration

The faculty encourage students to design one of two Management Information System (MIS) career tracks, either managerial or technical. An **MIS managerial track** can be created by choosing courses such as decision support systems, systems integration, project management, information systems management, systems design and implementation/integration, expert systems, Visual BASIC, executive management systems, information systems planning, information resource management, and an MIS project/seminar or internship.

An **MIS technical track** can be created by choosing courses such as operating systems, advanced programming languages, data structures, compiler design, knowledge-based/expert systems, artificial intelligence, computer simulation, advanced database, and an MIS project/seminar or internship.

There are several Excelsior College courses that will apply to the additional credit requirement. Refer to our Web site or contact your advising team for more information.

Note: **Where an Excelsior College® Examination or course will satisfy a requirement, it is shown in [brackets]. Excelsior College Examinations have an "x" after the department e.g., [BUSx310 Ethics: Theory & Practice].**

Business Programs Advising Team:
toll free 888-647-2388, ext. 1331

Excelsior College Course and Exam Information and Registration:
www.excelsior.edu/courses
www.excelsior.edu/exams

Course/Exam Approval:
www.excelsior.edu/MessageCenter

Excelsior College Learning Resources:
www.excelsior.edu/library
www.excelsior.edu/bookstore
www.excelsior.edu/MyExcelsior, click on the Resources tab

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Marketing

See Chart 5, page 31.

Marketing includes all activities required to direct the flow of products and services from producers to consumers. It includes marketing research, which entails interpreting conditions in the marketplace and forecasting future trends; the development of strategies to ensure demand for a product or service; analysis of how consumers behave; advertising and promotion; distribution of goods; and the utilization of effective selling methods. Career opportunities in marketing include product or brand management, retail/wholesale management, industrial marketing, advertising, and market information systems analysis.

Subject Requirements for the Marketing Concentration

15 credits are required in this concentration area. At least **9** must be upper-level.

I. Required subjects
   - A. Consumer Behavior
   - B. Marketing Management (sometimes called Product Planning)
   - C. Market Research

II. 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].**

Operations Management

See Chart 5, page 31.

The concentration in operations management is designed for students interested in the production of goods and services and the application of quantitative methods to solve business problems in this area of increasing importance in the world economy. Business problems analyzed in this field of management include inventory control, facilities planning and location, and productivity analysis. Employment opportunities include production planning or scheduling, inventory management, and manufacturing management.

Subject Requirements for the Operations Management Concentration

15 credits are required in this concentration area. At least **9** must be upper-level.

Credit in this concentration may be earned from courses such as advanced production management, forecasting, inventory control management, logistics, operations research/management science, production planning, production system design, purchasing, quality control, service control management, simulation, and other related courses (with approval), **[BUS 430 Quantitative Methods], [BUS 440 Business Supply Chain Management], [IT 390 Project Management].**

Risk Management and Insurance

See Chart 5, page 31.

The concentration in risk management and insurance is designed to help students develop a working understanding of the risk management process and the interrelationship between insurance theory and practice. It focuses on the analysis and treatment of loss and offers insight into how risk management objectives support organizational objectives. It also incorporates study of the global environment for insurance including emerging issues and trends related to international trade and commerce.

Subject Requirements for the Risk Management and Insurance Concentration

15 credits are required in this concentration area. At least **9** must be upper-level.

I. Required subjects
   - A. Principles of Risk Management
   - B. Risk Control or Risk Finance
   - C. Principles of Insurance (or Principles of Life/Health Insurance or Principles of Property/Casualty Insurance)

II. Additional credit in the concentration

The faculty encourage students to design one of three career tracks: life/health insurance, property/liability insurance, or corporate risk management.

A **life/health insurance track** can be created by choosing courses such as group insurance—medical, dental, prescription drug, or group insurance—life, disability, travel.

A **property/casualty insurance track** can be created by selecting courses in business interruption, transportation (air, automotive, ocean) insurance, or catastrophic (fire, flood, wind, earthquake, theft) insurance.

A **corporate risk management track** can be created by choosing courses such as product liability and self-insurance and retention. Other risk management/insurance electives include social insurance, comparative insurance programs, reinsurance, actuarial studies, international studies in insurance, and other related courses (with approval).

Bachelor of Science in Accounting

New York State CPA Track

See Chart 8, page 34.

The Excelsior College CPA accounting program is registered as meeting the educational requirements necessary to qualify its graduates to sit for the CPA examination in New York State. If you are interested in sitting for the CPA examination in another state, you should contact that state's Board of Accounting for its specific educational requirements for admission to the examination, including the acceptability of online courses and proficiency examinations.

Subject Requirements for the Accounting, New York State CPA Track

To qualify to sit for the New York State CPA examination, you must complete **45** credits in this area.

I. Required subjects

A. Intermediate Accounting I

B. Intermediate Accounting II

C. Cost Accounting **[ACC 360 Cost Accounting]**

D. Taxation—Individual† (United States tax)

E. Taxation—Corporate† (United States tax)

F. Advanced Accounting‡ (covering both partnerships and consolidations)

G. Auditing† (professional, not internal auditing) **[ACC 400 Auditing]**

H. Business Law II (United States business law only)

I. Finance II

J. Advanced Finance for Management‡ **[BUS 505 Finance]**

K. Accounting Theory‡

L. Advanced Financial Statement Analysis‡ **[BUS 500 Accounting for Managers]**

M. Research of Current Topics in Accounting‡

N. Advanced Auditing†

O. Computer Science (3 credits in addition to the core requirement in computers)

† Some institutions cover tax or auditing in one comprehensive course. Others cover these subjects in two or more courses. If you take one course to cover this requirement, it must be an upper-level course from a four-year school or an approved proficiency examination. If you take a two-course sequence, at least one of the courses must be an upper-level course from a four-year school or an approved proficiency examination.

‡ Must be upper-level from a four-year school or approved proficiency examination.

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Bachelor of Professional Studies

in Business and Management

See Chart 3, page 29.

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 degree makes it an excellent educational next step for graduates of Excelsior College associate in applied science degree programs in business and technology. As with other bachelor's programs in the School of Business and Technology, credit is awarded for Excelsior College courses and examinations, courses taken at accredited institutions other than Excelsior, approved proficiency exams, and 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 College 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.

The outcomes and specific degree requirements for the *Bachelor of Professional Studies in Business and Management* are as follows.

Program Outcomes

We expect that as an Excelsior College baccalaureate business graduate you will be able to:

1. Use commonly-available workplace technology tools to communicate professional information in clear, grammatical, and effective written prose.
2. Develop and communicate cohesive arguments using appropriate supporting evidence and effective prose.
3. Interpret events using more than one perspective, with an understanding of the significance of integrating knowledge and skills in the workplace.
4. Identify, critically evaluate, and propose solutions for management problems.
5. Apply knowledge of mathematics and natural sciences to problem-solving in management contexts.
6. Demonstrate an awareness of the ethical implications of actions.
7. Demonstrate information literacy.
8. Participate effectively in groups.
9. Apply project management techniques where appropriate.
10. Understand the global environment of business.
11. Demonstrate understanding of the relationship between culture and human behavior in the workplace.
12. Use business tools to solve business and management problems.
13. Apply business and management concepts in an integrated manner.

Note: **Where an Excelsior College® Examination or course will satisfy a requirement, it is shown in [brackets]. Excelsior College Examinations have an "x" after the department e.g., [BUSx310 Ethics: Theory & Practice].**

Requirements for the Bachelor of Professional Studies in Business and Management

Every Excelsior College 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 College Bachelor of Professional Studies in Business and Management degree program is comprised of three major components: arts and sciences; professional; and additional credit. The three components and their respective requirements are explained in the following sections.

Note: A grade of "C" or higher is required for all PC core requirements, the written English requirement (both courses), Precalculus Algebra, Statistics, math elective, natural science elective, and ethics.

I. Arts and Sciences Component — 30 credits, including 9 upper-level

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

Written English Requirement

At least 6 credits must come from courses that satisfy the written English requirement (see page 3).

Humanities

You must successfully complete at least 9 credits in the humanities, including ethics **[BUS 323 Business Ethics, BUSx310 Ethics: Theory and Practice]**.

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 6 credits in the social sciences/history.

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

Natural Sciences/Mathematics

You must successfully complete a minimum of 6 credits in mathematics to include a 3-credit course in either College Algebra at the level of precalculus or above **[MAT 116 Precalculus Algebra]** or Statistics **[BUS 233 Business Statistics]**.

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

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

II. 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 College 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 240 Principles of* Management]**

Leadership [BUS 452 Business Leadership]

Accounting [ACC 211 Financial Accounting, ACC 212 Managerial Accounting]

Computer Applications [BUS 220 Workplace Communication with Computers]

Project Management
[IT 390 Project Management]

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Business and Management Core

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

Human Resources Management [BUS 312 Managing Human Resources]

Marketing [BUS 250 Principles of Marketing]

Finance [BUS 350 Principles of Finance]

Organizational Behavior [BUS 311 Organizational Behavior, BUSx315 Organizational Behavior]

Global Business [BUS 435 International Business]

Integrated Business and Management Assessment [BUS 490 Bachelor of Professional Studies Capstone—*this course must be completed at Excelsior College*]

Professional Component Electives

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.

III. 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 degree. 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, criminal justice. A maximum of two credits for physical education activity courses may be applied.

Information Literacy Requirement

Information Literacy	1 credit

Students are expected to demonstrate competency in information literacy. See page 4 for more information about the information literacy requirement. The information literacy requirement is applied to the additional credit component.

CHART 3

Bachelor of Professional Studies — Business and Management

Total Degree Credits Required: 120
Total Upper-Level (UL) Credits Required: 30

BPS

Arts and Sciences Component

(Minimum of 9 UL credits)

	Credit Hours
Written English Requirement	6
Humanities Requirement Ethics and 6 credits in Humanities Electives	9
Social Sciences/History Requirement Social Sciences/History Electives	6
Natural Sciences/Mathematics Requirement College Algebra or Statistics Mathematics Elective Natural Science Elective	3 3 3
Minimum Arts and Sciences Component	**30**

Additional Credit Component

(Minimum of 6 UL credits)

	Credit Hours
Any Collegiate-level Study May include any excess credit in Arts and Sciences, Business, or any approved free elective area	
Information Literacy	1
Total Additional Credit Component	**45**

Professional Component

(Minimum of 15 UL credits; a minimum of 9 UL credits must be in the Business and Management Core or Professional Electives)

Credit Hours

Professional Core

1. General Management
2. Leadership
3. Accounting
4. Computer Applications
5. Project Management

Business and Management Core

1. Human Resource Management
2. Marketing
3. Finance
4. Organizational Behavior
5. Global Business
6. Integrated Business and Management Assessment*

Professional Component Electives

Minimum Professional Component Requirement	**45**

* **You must complete BUS 490: Integrated Business and Management Assessment at Excelsior College to satisfy this requirement.**

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CHART 4

Bachelor of Science in Business, General Business Concentration

Total Degree Credits Required: 120

BS

Arts and Sciences Component

	Credit Hours
Written English Requirement	6
Humanities Requirement (must complete a minimum of 6 credits, which may include Ethics*)	9
Social Sciences/History Requirement (must include **Microeconomics, Macroeconomics,** and 9 additional credits)	15
Natural Sciences/Mathematics Requirement (must include a math course at the level of **Precalculus or above**, **Statistics,** and **a natural science course**)	9
Remaining Arts and Sciences Credit (may be taken from any areas of humanities, social sciences, history, natural sciences, or math)	up to 21
Minimum Arts and Sciences Component	**60**

Additional Credit Component

	Credit Hours
Any Collegiate-level Study May include any excess credit in Arts and Sciences and Business areas.	
Information Literacy	1
Total Additional Credit Component	**15**

Business Component

	Credit Hours
Business Core Requirements Financial Accounting Managerial Accounting Introduction to Business Law (United States Business Law) Computers Principles of Management Principles of Marketing Financial Management Production/Operations Management Business Policy** **Organizational Behavior Requirement** Organizational Behavior* **Ethics Requirement** Ethics*	
Upper-level Business Credit Must complete a minimum of 21 upper-level credits in the business component.	
Minimum Business Component	**45**

* **Depending on the content, the Ethics and Organizational Behavior courses may be classified as business credit or as arts and sciences credit.**

** **You must complete BUS 495: Business Strategy at Excelsior College to satisfy this requirement.**

CHART 5

Basic pattern for Bachelor of Science degree in the following specific concentration areas: Finance, General Accounting, Global Business, Management of Human Resources, Marketing, Operations Management, and Risk Management and Insurance

Total Degree Credits Required: 120

BS

Arts and Sciences Component

	Credit Hours
Written English Requirement	6
Humanities Requirement (must complete a minimum of 9 credits, which may include Ethics*)	9
Social Sciences/History Requirement (must include **Microeconomics**, **Macroeconomics**, and 9 additional credits)	15
Natural Sciences/Mathematics Requirement (must include a math course at the level of **Precalculus or above**, **Statistics**, and **a course in a natural science**)	9
Remaining Arts and Sciences Credit (may be taken from any areas of humanities, social sciences, history, natural sciences, or math)	up to 21
Minimum Arts and Sciences Component	**60**

Additional Credit Component

	Credit Hours
Any Collegiate-level Study May include any excess credit in Arts and Sciences and Business areas.	
Information Literacy	1
Total Additional Credit Component	**15**

Business Component

	Credit Hours
Business Core Requirements Financial Accounting Managerial Accounting Introduction to Business Law (United States Business Law) Computers Principles of Management Principles of Marketing Financial Management Production/Operations Management Business Policy**	
Organizational Behavior Requirement Organizational Behavior*	
Ethics Requirement Ethics*	
Concentration Requirement Must complete 15 credits in the concentration area of which 9 must be upper level.	
Upper-level Business Credit Must complete a minimum of 21 credits at the upper level of which 9 must be in the concentration. The remaining 12 credits may be earned in the business component.	
Minimum Business Component	**45**

* **Depending on the content, the Ethics and Organizational Behavior courses may be classified as business credit or as arts and sciences credit.**

** **You must complete BUS 495: Business Strategy at Excelsior College to satisfy this requirement.**

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CHART 6

Bachelor of Science in Business
Hotel, Restaurant, and Tourism Management Concentration

Total Degree Credits Required: 120

BS

Arts and Sciences Component

	Credit Hours
Written English Requirement	6
Humanities Requirement (must complete a minimum of 9 credits, which may include Ethics*)	9
Social Sciences/History Requirement (must include **Microeconomics**, **Macroeconomics**, and 9 additional credits)	15
Natural Sciences/Mathematics Requirement (must include a math course at the level of **Precalculus or above**, **Statistics**, and **a course in a natural science**)	9
Remaining Arts and Sciences Credit (may be taken from any areas of humanities, social sciences, history, natural sciences, or math)	up to 21
Minimum Arts and Sciences Component	**60**

Additional Credit Component

	Credit Hours
Any Collegiate-level Study May include any excess credit in the Arts and Sciences, Business, and/or Hospitality Management areas. **Strongly Recommended:** Professional Cooking Hospitality Purchasing	
Sanitation and Safety	1
Information Literacy	1
Minimum Additional Credit Component	**12**

Business Component

	Credit Hours
Business Core Requirements Financial Accounting Managerial Accounting Introduction to Business Law (United States Business Law) Computers Principles of Management Principles of Marketing Financial Management Production/Operations Management Business Policy**	
Organizational Behavior Requirement Organizational Behavior*	
Ethics Requirement Ethics*	
Concentration Requirement **Must complete a minimum of 21 credits in the concentration area, of which 9 must be upper level.** Hotel/Restaurant Cost Control Hospitality Service Systems Technologies Hotel/Front Office Management Hotel/Restaurant Franchising Hospitality Law Tourism Hospitality Management Elective	
Upper-level Business Credit Must complete a minimum of 21 credits at the upper level, 9 of which must be in the concentration. The remaining 12 credits may be earned in the business component.	
Minimum Business Component Credit Hours	**48**

* **Depending on the content, the Ethics and Organizational Behavior courses may be classified as business credit or as arts and sciences credit.**

** **You must complete BUS 495: Business Strategy at Excelsior College to satisfy this requirement.**

CHART 7

Bachelor of Science in Business, Management Information Systems Concentration

Total Degree Credits Required: 120

BS

Arts and Sciences Component

	Credit Hours
Written English Requirement	6
Humanities Requirement (must complete a minimum of 9 credits, which may include Ethics*)	9
Social Sciences/History Requirement (must include Microeconomics, Macroeconomics, and 9 additional credits)	15
Natural Sciences/Mathematics Requirement (must include a math course at the level of Precalculus or above, Statistics, and a natural science course)	9
Remaining Arts and Sciences Credit (may be taken from any areas of humanities, social sciences, history, natural sciences, or math)	up to 21
Minimum Arts and Sciences Component	**60**

Additional Credit Component

	Credit Hours
Any Collegiate-level Study May include any excess credit in Arts and Sciences and Business areas.	
Information Literacy	1
Total Additional Credit Component	**15**

* Depending on the content, the Ethics and Organizational Behavior courses may be classified as business credit or as arts and sciences credit.

** You must complete BUS 495: Business Strategy at Excelsior College to satisfy this requirement.

Business Component

Credit Hours

Business Core Requirements
Financial Accounting
Managerial Accounting
Introduction to Business Law (United States Business Law)
Computers
Principles of Management
Principles of Marketing
Financial Management
Production/Operations Management
Business Policy**

Organizational Behavior Requirement
Organizational Behavior*

Ethics Requirement
Ethics*

Concentration Requirement
Must complete a minimum of 18 credits in the concentration area of which 9 must be upper level.
A business programming language such as C, C++, or PASCAL
Database Management
Data Communications
or
Telecommunications
or
Networking
Systems Analysis and Design

Upper-level Business Credit
Must complete a minimum of 21 credits at the upper level, 9 of which must be in the concentration. The remaining 12 credits may be earned in the business component.

Minimum Business Component	**45**

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CHART 8

Bachelor of Science in Accounting, NYS CPA Track

Total Degree Credits Required: 150

BS

Arts and Sciences Component

	Credit Hours
Written English Requirement	6
Humanities Requirement (must complete a minimum of 9 credits, which may include Ethics*)	9
Social Sciences/History Requirement (must include **Microeconomics**, **Macroeconomics**, and 9 additional credits)	15
Natural Sciences/Mathematics Requirement (must include a math course at the level of **Precalculus or above**, **Statistics**, and **a natural science course**)	9
Remaining Arts and Sciences Credit (may be taken from any areas of humanities, social sciences, history, natural sciences, or math)	up to 21
Minimum Arts and Sciences Component	**60**

Additional Credit Component

	Credit Hours
Any Collegiate-level Study May include any excess credit in Arts and Sciences and Business areas.	
Information Literacy	1
Total Additional Credit Component	**15**

Business Component

	Credit Hours
Business Core Requirements	
Financial Accounting (minimum 3 credits)	
Managerial Accounting (minimum 3 credits)	
Introduction to Business Law (United States Business Law) (minimum 3 credits)	
Computers	
Principles of Management	
Principles of Marketing	
Financial Management (minimum 3 credits)	
Production/Operations Management	
Business Policy**	
Organizational Behavior Requirement	
Organizational Behavior*	
Ethics Requirement	
Ethics*	
CPA Track Requirements	
Intermediate Accounting I	
Intermediate Accounting II	
Cost Accounting	
Taxation I—Individual (Unites States tax)†	
Taxation II—Corporate (United States tax)†	
Advanced Accounting (partnerships and consolidations)‡	
Auditing (professional, not internal)†	
Business Law II (U.S. business law only)	
Finance II	
Advanced Finance for Management‡	
Accounting Theory‡	
Advanced Financial Statement Analysis‡	
Research of Current Topics in Accounting‡	
Advanced Auditing†	
Computer Science (3 credits)	
Minimum Business Component	**75**

* **Depending on the content, the Ethics and Organizational Behavior courses may be classified as business credit or as arts and sciences credit.**

** **You must complete BUS 495: Business Strategy at Excelsior College to satisfy this requirement.**

† **Refer to page 25 for specific information about this requirement.**

‡ **Refer to page 25 for specific information about this requirement.**

Bachelor of Science in Business Degree to Master of Business Administration Degree

Dual Degree Track

The BS/MBA program is offered in conjunction with the School of Business & Technology. The dual degree track requires a total of **147** credits. Students are awarded their bachelor's degree by completing **60** credits in the arts and sciences component, **48** credits in the business component, and **6** credits in the additional credit component. Students achieve graduate status after completion of the **6**-credit bridge component. The **27**-credit graduate course component completes the master's degree requirements.

Important Note: You are subject to the degree requirements in effect at the time of your 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 enrolled and prospective students. It is your responsibility to keep informed of such changes. We make every effort to inform you of changes as they occur. Current information about degree requirements is posted on our Web site. Information about changes to degree requirements is also made available on our Web site.

Program Outcomes

We expect that a graduate of an Excelsior College baccalaureate business program will be able to:

1. Demonstrate comprehension of the principles of accounting, marketing, finance, management and economics.
2. Demonstrate comprehension of the legal and social environment of business.
3. Demonstrate comprehension of the global environment of business.
4. Apply ethical considerations to the obligations and responsibilities of business.
5. Apply business tools to real-world situations.
6. Employ information literacy techniques.
7. Communicate effectively, orally and in writing.
8. Apply business concepts and functions in an integrated manner.

Upon successful completion of the Excelsior College MBA program, the graduate will be able to:

1. Analyze real-world business problems and generate recommendations for action.
2. Integrate accounting, marketing, finance, management and economics into a strategic business analysis.
3. Assess the impact of the global business environment on business situations.
4. Apply quantitative methods to analysis of business situations.

Note: Throughout this catalog the term "credits" is used to indicate semester hours. Quarter hours are converted to semester hours by multiplying quarter-hour values by two thirds.

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5. Perform ethically and professionally in business and society.
6. Communicate effectively to relevant audiences in written materials.
7. Collaborate in teams to produce required deliverables.
8. Apply project management skills to business situations.
9. Assess the ethical implications of actions for diverse stakeholders.

Dual Degree Track Requirements

Arts and Sciences Component

60 credits

1. Written English Requirement

A minimum of 6 credits must be earned in English composition using approved examinations and/or courses. See the written English requirement explanation on page 3 for additional information.

2. Humanities

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

b. A minimum of 6 credits must be earned in other humanities subjects such as art, literature, business ethics [BUS 323 Business Ethics], philosophy, religion, theatre, speech, and foreign languages.

3. Social Sciences/History

a. A minimum of 3 credits must be earned in Microeconomics with a minimum grade of C.

b. A minimum of 3 credits must be earned in Macroeconomics with a minimum grade of C.

c. A minimum of 9 credits must be earned in other social science/history subjects including geography, economics, cultural anthropology, political science, sociology, and psychology.

4. Natural Sciences/Math

a. A minimum of 3 credits must be earned in Statistics with a minimum grade of C.

b. A minimum of 3 credits must be earned in College Algebra (at the level of Precalculus or above) with a minimum grade of C.

c. A minimum of 3 credits must be earned in natural sciences. Subjects comprising this category include topics in biology, chemistry, genetics, and physics.

5. Arts and Sciences Electives

An additional 21 credits must be completed in the arts and sciences areas of the humanities, social sciences/history, or natural sciences/math. Students may distribute these credits across the arts and sciences subjects in any fashion.

Additional Credit Component

6 credits

1. Information Literacy

A minimum of 1 credit must be earned in information literacy. See the information literacy requirement explanation on page 4 for more information.

2. Other College-Level Credit

A minimum of 5 (determined by concentration) credits must be earned in other college-level credit. This essentially is an elective area that can be fulfilled with additional arts and sciences credits or applied professional credits.

* must be completed at the upper level with a grade of B or higher

Business Component

48 credits

1. **Business Core**

   Three credits in each of the following subjects must be earned with minimum grades of C:

   a. Financial Accounting
   [ACC 211 Financial Accounting]

   b. Managerial Accounting
   [ACC 212 Managerial Accounting]

   c. Introduction to Business Law (U.S.)
   [BUS 230 Business Law]

   d. Computers **[BUS 220 Workplace Communications with Computers]**

   e. Principles of Management
   [BUS 240 Principles of Management]

   f. Entrepreneurial Marketing*
   [BUS 310 Entrepreneurial Marketing]

   g. Financial Management*
   [BUS 350 Principles of Finance]

   h. Production/Operations Management
   [BUS 425 Operations Management]

   i. Organizational Behavior*
   [BUS 311 Organizational Behavior]

   j. Quantitative Methods*
   [BUS 430 Quantitative Methods]

   k. Business Policy
   [BUS 496 Business Strategy]

2. **Business Concentration/Electives**

   Fifteen to 21 credits are required (see concentration requirements).

* must be taken at the upper level and receive a grade of B or higher

Bridge Component

6 credits

1. **Business Communications**
   [BUS 501 Business Communications]
2. **Global Business Environment**
   [BUS 502 Global Business Environment]

Graduate Component

27 credits

1. **Accounting for Managers**
   [BUS 500 Accounting for Managers]
2. **Human Resources Management**
   [BUS 504 Human Resource Management]
3. **Operations Management**
   [BUS 520 Operations Management]
4. **Leadership/Change Management**
   [BUS 552 Leadership or **BUS 554 Change Management]**
5. **Information Technology**
   [BUS 570 Information Technology]
6. **Strategy and Policy**
   [BUS 511 Strategy and Policy]
7. **Business Electives or Concentration**
   (see concentration requirements)

Note: **Where an Excelsior College® Examination or course will satisfy a requirement, it is shown in [brackets]. Excelsior College Examinations have an "x" after the department e.g., [BUSx310 Ethics: Theory & Practice].**

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Policies Specific to the BS in Business to MBA Dual Track Program

The Excelsior College *Student Policy Handbook* is your resource for understanding the academic and administrative policies that are important to your academic success. It includes a wide range of information from 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.

Your Personalized MyExcelsior Account:
www.excelsior.edu/MyExcelsior

Student Policy Handbook:
www.excelsior.edu/StudentPolicyHandbook

Business Programs Advising Team:
toll free 888-647-2388, ext. 1331

Excelsior College Community Resources:
www.excelsior.edu/MyExcelsior, click on Communities tab

Excelsior College Learning Resources:
www.excelsior.edu/library
www.excelsior.edu/bookstore
www.excelsior.edu/MyExcelsior, click on the Resources tab

Excelsior College Online Writing Lab (OWL):
www.excelsior.edu/OWL

BS in Business/MBA

- Minimum grades of B are required for each of the five MBA foundational courses (Business Ethics, Quantitative Analysis, Organizational Behavior, Marketing, and Finance). These courses must be upper level and no older than 10 years.
- Minimum grades of C are required in each of the courses comprising the business core areas for the Bachelor of Science degree.
- Students must be within ten credits of completing the undergraduate component in order to enroll in the bridge courses.
- A minimum grade point average (GPA) of 2.0 is required to move forward with the graduate course component.
- Students must complete all undergraduate requirements in order to move forward with the graduate component courses. (A minimum GPA of 3.0 is required to complete the MBA degree.)
- Upon completion of all undergraduate requirements, students have two options:

  *1. Continue in the program and receive both the BS in Business and MBA at the conclusion of the graduate studies.

  OR

  *2. Receive the bachelor's degree and then have the option to apply for the MBA in the future. Students will be subject to requirements and fees in place at the time of enrollment in the MBA.

- Students may transfer up to a maximum of 24 approved graduate credits (including 15 foundation credits).
- No more than two Excelsior College MBA courses with "C" grades can be applied toward the degree; these "C" grades must be offset by "A" grades in other MBA courses.

* Students will be required to pay all applicable fees.

CHART 9

Bachelor of Science in Business to Master of Business Administration—Dual Degree Track
All Concentrations

Total Degree Credits Required: 147

BSB to MBA

Baccalaureate Phase

Arts and Sciences Component

	Credit Hours
Written English Requirement	6
Humanities Requirement ■ **BUS 323** Business Ethics* ■ Humanities Electives	9
Social Sciences/History Requirement ■ Microeconomics ■ Macroeconomics ■ Social Science Electives (9 credits)	15
Natural Sciences/Mathematics Requirement ■ Math course at level of Precalculus or above ■ Statistics ■ Natural Science course (3 credits)	9
Arts and Sciences Electives	21
Total Arts and Sciences Credit	**60**

Additional Credit Component

	Credit Hours
Any College-Level Study May include any excess credit in the arts/sciences, business, or applied professional areas.	5
Information Literacy	1
Total Additional Credit	**6**

Business Component

	Credit Hours
Business Core Requirements ■ Financial Accounting ■ Managerial Accounting ■ Introduction to Business Law (U.S.) ■ Computers ■ Principles of Management ■ **BUS 310** Entrepreneurial Marketing* ■ **BUS 350** Principles of Finance* ■ Production/Operations Management ■ **BUS 311** Organizational Behavior* ■ **BUS 430** Quantitative Methods* ■ Business Policy**	
Business Concentration/Electives Requirements Fifteen to 21 credits are required.	
Total Professional Credit	**48**

Upper-Level Business Credit
Must complete a minimum of 21 credits at the upper level. Of the 15 credits required in the concentration, 9 must be earned at the upper level.

* = Must be taken at the upper level and completed with a grade of B or above within the past 10 years.

** = Must be completed at Excelsior College

Bridge Component

	Credit Hours
MBA requirements; credits apply toward the BS	
BUS 501: Business Communications **BUS 502:** Global Business Environment	6
Total Bridge Credit	**6**

Graduate Status Achieved
Students achieve graduate status upon completion of the bridge component and all other undergraduate requirements.

Graduate Course Component

	Credit Hours
BUS 500 Accounting for Managers **BUS 504** Human Resources Management **BUS 520** Operations Management **BUS 570** Information Technology **BUS 552** Leadership ***or*** **BUS 554** Change Management **BUS 511** Strategy and Policy (Capstone) **Electives** (9 elective or concentration course credits)	27
Total Graduate Credit	**27**

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Master of Business Administration

The Excelsior College Master of Business Administration (MBA) program continues the long-standing Excelsior College 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 ethics, communication and other workplace-oriented skills, and the application of theory to practical situations. Students are encouraged to build upon their existing work-based knowledge and to share this with others in their courses.

Consistent with Excelsior College's mission to provide academic opportunities that overcome barriers of time, distance and cost, the MBA program allows students to transfer up to 24 credits from outside sources. The School of Business & Technology offers online courses to fulfill all MBA foundation and core requirements, as well as elective and concentration options.

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.

MBA foundation requirements are designed to provide the academic background required for the core and elective courses. Upon enrollment in the program, up to 15 credits of foundation courses may be waived on the basis of prior graduate or upper level undergraduate study in the relevant areas. Newly enrolled students may also waive foundation requirements through the successful completion of online challenge examinations.

The Excelsior College 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.

Program Outcomes

The Excelsior College 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 College MBA program, the graduate will be able to:

1. Analyze real-world business problems and generate recommendations for action.
2. Integrate accounting, marketing, finance, management, and economics into a strategic business analysis.
3. Assess business environment on business situations.
4. Apply quantitative methods to analysis of business situations.
5. Perform ethically and professionally in business and society.
6. Communicate effectively to relevant audiences in written materials.
7. Collaborate in teams to produce required deliverables.
8. Apply project management skills to business situations.
9. Assess the ethical implications of actions for diverse stakeholders.

Policies Specific to the MBA

The Excelsior College *Student Policy Handbook* is your resource for understanding the academic and administrative policies that are important to your academic success. It includes a wide range of information from 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.

Policies and procedures that apply specifically to the MBA program are listed on the following pages. File your handbook with this program catalog and your other important academic papers for easy reference.

Admissions Policy

Students with a bachelor's degree from an accredited institution may be admitted into the Excelsior College MBA program. Students who have completed an undergraduate degree program outside the U.S. are required to submit transcripts of undergraduate and graduate work to one of our approved foreign credential evaluation services, Education Credential Evaluators, Inc. (ECE) or World Education Services (WES). They will review your undergraduate degree program to verify that it is the equivalent to a bachelor's-level degree in the United States. Students choosing to work with ECE should request that a Course by Course Report, indicating the completion of their bachelor's degree, be conducted

Your Personalized MyExcelsior Account:
www.excelsior.edu/MyExcelsior

MBA Advising Team:
toll free 888-647-2388, ext. 1331

Apply for Admission:
www.excelsior.edu/apply

College Publications, Applications, and Forms:
www.excelsior.edu/publications

Student Policy Handbook:
www.excelsior.edu/StudentPolicyHandbook

Fee Schedules, Financial Aid, and Scholarships:
www.excelsior.edu/fees
www.excelsior.edu/FinancialAid
www.excelsior.edu/scholarships

Education Credential Evaluators, Inc. (ECE)
www.ece.org/excelsior

World Education Services (WES)
www.wes.org

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and forwarded to Excelsior College. In addition, any graduate courses submitted for transfer require a Subject Analysis Report. More information about ECE is available on their Web site at **www.ece.org/excelsior**. Students electing to work with WES should request that a Course by Course Report, indicating bachelor's degree completion, be conducted and sent to Excelsior. For more information on WES, visit **www.wes.org**.

The GMAT is not required.

Application Process

You are required to apply for admission into the Excelsior College MBA degree program. Visit our Web site at www.excelsior.edu/apply to apply online or to download the Graduate Application for Admission form. Return the completed form to Excelsior College with the nonrefundable application fee. Please submit an official college transcript verifying completion of a baccalaureate degree along with official transcripts of any graduate-level study you wish to be considered for transfer toward the MBA requirements. Upon review of the transcripts and application, if qualified, you will receive an admittance letter and acceptance form.

To enroll in the MBA program you must submit the acceptance form with your Graduate Student Services fee. You may do so online or through the mail.

Acceptance of Transfer Credit

Graduate-level coursework that has been completed within 10 years of the date of enrollment may be used to satisfy the requirements of the MBA program if approved by Excelsior College faculty. Students may transfer up to 24 credits. Excelsior College will require a minimum grade of B- for any approved graduate course accepted for transfer credit. Excelsior College 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 college/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 degree have a maximum of 10 years to complete the program from the date of enrollment.

Grade Point Average

Excelsior College requires an overall 3.0 cumulative GPA for completion of the MBA. No more than two Excelsior College courses with C grades can be applied toward the degree; these C grades must be offset by A grades in other Excelsior College courses. Refer to the *Student Policy Handbook* for complete information.

Program Content and Requirements

Enrolled MBA students work with Excelsior College academic advisors to make degree plans that meet student needs and conform to the academic policies and course requirements of the program. The program is designed to be flexible and ensure student success by providing traditional education, distance education, and American Council on Education (ACE)-approved course alternatives. Excelsior College 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 College MBA offers diverse options for degree completion through online courses offered by Excelsior College and courses offered by Excelsior Preferred Providers. For more information on these offerings as well as access to our course search feature for enrolled students, visit our Web site.

Waiver of Foundation Requirements/ Foundation Challenge Examinations

MBA foundation requirements provide the academic background required for the core and elective courses. The faculty has identified five foundation requirements: Business Ethics and Social Responsibility; Finance; Marketing; Organizational Behavior; and Quantitative Analysis.

Students may waive one or more of the foundation requirements on the basis of prior upper-level undergraduate study in the relevant area(s). The waiver determination is made during the admission process at the time a student's undergraduate and prior graduate transcripts are reviewed. Credit is not awarded for courses used to waive foundation requirements; instead, students who are granted foundation waivers ultimately complete fewer credits toward the degree than students who do not qualify for waiver. Students may not complete undergraduate courses to waive foundation requirements once they have enrolled in the MBA program.

Students who possess the requisite knowledge, but have not completed prior graduate or upper-level undergraduate work in one or more of the foundation areas may elect to attempt to waive foundation requirements by successfully completing one or more foundation challenge examinations. These exams may be attempted one time each upon enrollment in the MBA program. The foundation challenge exams are delivered online, and are scored on a pass/fail basis. These exams carry no credit; rather, they result in a waiver of foundation requirements.

MBA Program Content and Degree Requirements

33–48 credits

Successful fulfillment of these requirements ensures a quality education. Refer to the graduate-level course descriptions beginning on page 64 for course content information.

MBA Foundation Requirements

0–15 credits, waivable

Business Ethics and Social Responsibility (3 credits) [BUS 523 Business Ethics for Managers]

Finance (3 credits) [BUS 505 Finance]

Marketing (3 credits) [BUS 506 Marketing]

Organizational Behavior (3 credits) [BUS 553 Organizational Behavior]

Quantitative Analysis (3 credits) [BUS 503 Quantitative Analysis]

MBA Core Courses

24 credits required

Accounting for Managers (3 credits) [BUS 500 Accounting for Managers]

Business Communications (3 credits) [BUS 501 Business Communication]

Global Business Environment (3 credits) [BUS 502 Global Business Environment]

Human Resource Management (3 credits) [BUS 504 Human Resource Management]

Information Technology (3 credits) [BUS 570 Information Technology]

Leadership (3 credits) [BUS 552 Leadership]

OR

Change Management (3 credits) [BUS 554 Change Management]

Operations Management (3 credits) [BUS 520 Operational Management]

Strategy and Policy (3 credits) [BUS 511 Business Strategy & Policy]

Note: The Strategy and Policy (Capstone) course must be taken directly from Excelsior College.

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MBA Electives *or* Concentration

minimum 9 credits required

Students round out the MBA either by completing electives or by selecting a concentration.

Electives (9 credits)

Note: Courses from other Excelsior College master's programs may apply here. Contact your advisor for more information.

Master of Business Administration

Concentrations

9 credits each

Cybersecurity Management Concentration

The Cybersecurity Management concentration is designed to enable students to earn a master's degree related to the cybersecurity field. The degree program will meet the needs of students who have completed bachelor of science (BS) degrees and who want to enhance their knowledge and earn a master's degree within their career field.

Required subjects

Ethics, Legal, and Compliance Issues in Cybersecurity [BUS/CYS 541 Ethics, Legal, and Compliance Issues in Cybersecurity]

IT Risk Analysis and Management [BUS/CYS 575 IT Risk Analysis and Management]

Information Assurance [BUS/CYS 560 Information Assurance]

Human Performance Technology Concentration

The Human Performance Technology concentration uses a variety of interventions that are drawn from many disciplines including human resource management, organizational development, behavioral psychology and instructional systems design. It stresses a rigorous analysis of present and desired levels of performance, identifies the causes for performance gaps, offers a wide range of interventions with which to improve performance, guides the change management process, and evaluates the results.

There are no required subjects in this concentration. Students may complete [MLS 685 Strategic Problem Solving] at Excelsior College, and transfer approved courses from other institutions. In addition, Excelsior College has reviewed and approved several educational programs offered by the International Society for Performance Improvement (ISPI) for credit toward this concentration. Each student wishing to earn academic credit for an approved ISPI educational program must submit a work sample to demonstrate an understanding and mastery of the subject matter and practical application of knowledge. The qualifying ISPI educational programs are as follows.

HPT Institutes

Principles and Practices of Performance Improvement (3 credits, GR)

Making the Transition to Performance Improvement (3 credits, GR)

Note: Where an Excelsior College® Examination or course will satisfy a requirement, it is shown in [brackets]. Excelsior College Examinations have an "x" after the department e.g., **[BUSx310 Ethics: Theory & Practice]**.

Professional Series Workshops

Introduction to Serious Performance Consulting (2 credits, GR)

Results through Effective Implementation (2 credits, GR)

Workshops

Evaluation of Training: Making Sense of the Morass and Building Sensible, Practical, Useful Approaches (2 credits, GR)

Business-Driven Strategic Planning for Learning and Development (2 credits, GR)

Connecting Human Performance Improvement Interventions to Business Goals (1 credit, GR)

Measuring Human Capital (2 credits, GR)

Needs Assessment—Approaches and How to Get One Done One day version (1 credit, GR)

Needs Assessment—Approaches and How to Get One Done Three-day version (3 credits, GR)

In addition to the approved training available through ISPI, there are a variety of approved graduate-level distance courses offered at other institutions that students can combine with the approved ISPI training to complete the Human Performance Technology requirements.

For more information, including a schedule of upcoming institutes and workshops, visit the ISPI Web site (www.ispi.org) or contact the MBA advising team.

Information Security Concentration

Sample course titles include network security, introduction to information security, e-business security, security management practices, security polices, standards and procedures, principles in business and security risk analysis, principles in risk and vulnerability assessments, and other approved topics.

Required subjects

Management of Information Security
[BUS 580 Management of Information Security]

Management of Innovative Technology
[BUS 540 Management of Innovative Technology]

Special Topics in Network Security
[BUS 590 Special Topics in Network Security Management]

Leadership Concentration

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 towards managers desiring to become successful leaders within an organization that demands creativity and innovation to gain success. Each of these individuals is being challenged everyday 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

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strive for additional academic rigor to gain a leadership master's degree. It will be especially suited for Excelsior College baccalaureate degree graduates that wish to continue graduate studies with the School of Business & Technology.

Required subjects

Conflict Management (3 credits)
[MLS 694 Theories of Conflict and Conflict Resolution]

Leadership (3 credits)
[BUS 552 Leadership]

OR

Change Management (3 credits)
[BUS 554 Change Management]

Contingency Planning (3 credits)
[BUS 550 Contingency Planning]

Your Personalized MyExcelsior Account:
www.excelsior.edu/MyExcelsior

MBA Advising Team:
toll free 888-647-2388, ext. 1331

Excelsior College Course Information and Registration:
www.excelsior.edu/courses

Course/Exam Approval:
www.excelsior.edu/MessageCenter

Excelsior College Learning Resources:
www.excelsior.edu/practice
www.excelsior.edu/library
www.excelsior.edu/bookstore
www.excelsior.edu/MyExcelsior, click on the Resources tab

Excelsior College Community Resources:
www.excelsior.edu/MyExcelsior, click on Communities tab

Fee Schedules, Financial Aid, and Scholarships:
www.excelsior.edu/fees
www.excelsior.edu/FinancialAid
www.excelsior.edu/scholarships

Excelsior College Online Writing Lab (OWL):
www.excelsior.edu/OWL

Free Writing Resources (*scheduled to debut Fall 2011*),
Online Software Skills Training through Atomic Learning
(EC course and exam registrants only),
Online Tutoring Services through SMARTHINKING™
(EC course and exam registrants only)
www.excelsior.edu/MyExcelsior, click on the Resources tab

Technology Management Concentration

The Technology Management concentration provides students with the knowledge and skills necessary for a managerial position in the technology field. Courses that may be used to satisfy the Technology Management concentration include Management of Innovative Technology, Project Management Principles and Applications, and Quality and Productivity Methods in the Management of Technology.

Required subjects

Students may complete Excelsior College courses or transfer approved courses from other institutions to satisfy these concentration requirements.

Management of Innovative Technology (3 credits) [BUS 540 Management of Innovative Technology]

Project Management Principles and Application (3 credits) [BUS 530 Project Management Principles and Application]

Quality and Productivity Methods in the Management of Technology (3 credits)
[BUS 535 Quality & Productivity Methods in the Management of Technology]

CHART 10

Master of Business Administration

Total Degree Credits Required: 33 – 48

MBA

Foundation Requirements

(0 – 15 credits, waivable)

Credit Hours

- Business Ethics and Social Responsibility
- Finance
- Marketing
- Organizational Behavior
- Quantitative Analysis

Foundation Requirements	0–15

MBA Core Courses

(24 credits, required)

Credit Hours

- Accounting for Managers
- Business Communications
- Global Business Environment
- Human Resource Management
- Information Technology
- Leadership **OR** Change Management
- Operations Management
- Strategy and Policy

MBA Core Courses	24

Electives/ Concentration

(9 credits required)

Credit Hours

You may opt to select 9 credits from MBA electives or choose one of the following concentrations:

Cybersecurity Management Concentration

Required Subjects:

Ethics, Legal, and Compliance Issues in Cybersecurity
IT Risk Analysis and Management
Information Assurance

Human Performance Technology Concentration

There are no specific subject requirements in this concentration.

You may complete faculty-approved courses from other institutions and from the International Society for Performance Improvement (ISPI)

Information Security Concentration

Required Subjects:

Management of Information Security
Management of Innovation Technology
Special Topics in Network Security

Leadership Concentration

Required Subjects:

Conflict Management
Change Management or Leadership
Contingency Planning

Technology Management Concentration

Required Subjects:

Management of Innovative Technology
Project Management Principles and Application
Quality and Productivity Methods in the Management of Technology

Electives/Concentration	9

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School of Business and Technology Courses 2012–2013

The listing on the following pages provides numbers, titles, credits, and brief descriptions of courses available through the School of Business and Technology during the 2012–2013 academic year. Please visit the School of Business and Technology course section of the Excelsior College Web site at **www.excelsior.edu/CourseSearch** to view a more detailed overview of each course and to determine when each course will be offered.

Remember to contact your academic advisor for approval prior to registering for any courses to ensure that they will apply toward your degree as expected.

Not every course is offered every term. Please check our Web site for course availability.

Undergraduate Level

ACC 211 Financial Accounting — 3 credits

Develops skills of basic financial accounting principles in the pursuit of organizational goals and strategies. Topics covered include financial statement analysis, accounting information systems, operating decisions, and financing.

ACC 212 Managerial Accounting — 3 credits

Focuses on the processes of identifying, measuring, analyzing, interpreting, and communicating financial information for managerial decision making. Covers such topics as the fundamentals of basic unit costs, cost flow management systems and processes, budgeting and performance measurement, and cost analysis and pricing decisions.

ACC 350 Fraud Prevention and Detection — 4 credits

A broad overview of the field of forensic accounting. Examines the eleven sections of the Sarbanes-Oxley law. Helps students develop the professional skills necessary to understand, detect, investigate, and prevent fraud and white collar crime.

ACC 360 Cost Accounting — 3 credits

Develop an understanding of the attributes of cost behavior, cost accumulation systems and techniques, management planning and control systems, relevant cost information for short-term decision-making, and accounting data in long-term capital budgeting decisions. Includes detailed coverage of cost-volume-project analysis; job order and process costing including spoilage, budgeting, standard costing and variance analysis; absorption and variable costing; relevant costs; and capital budgeting.

ACC 400 Auditing — 3 credits

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 manger, you should be able to effectively plan and design an audit program, gather and summarize evidence, and evaluate internal controls.

BUS 220 Workplace Communication with Computers — 3 credits

Develops skills for effective communication in the office expected of business professionals, incorporating the use of basic computer office applications in everyday communication tasks. While learning about communication concepts, the course covers the basics of using spreadsheets, word processing, and PowerPoint, APA formatting, and the use of basic multimedia tools, templates, and document sharing.

BUS 230 Business Law — 3 credits

Analysis of key legal issues affecting businesses. Emphasis on development of legal strategies to support the venture over its expected life cycle. 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 233 Business Statistics — 3 credits

Develops skills in the essential tools used for statistical analysis and decision making in business. Covers descriptive and inferential statistics. Emphasizes research techniques such as sampling and experimental design concepts for single and multiple sample groups.

BUS 240 Principles of Management — 3 credits

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.

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BUS 250 Principles of Marketing — 3 credits

This course is a survey course and focuses on developing a strong conceptual framework for understanding and applying the principles of marketing. Marketing is treated as a complete system of activities in the complex field of business, which is part of the greater socio-economic system. Major topics include evolution of the concept of modern marketing, identification of markets, design of products to meet wants and needs, pricing strategies, distribution structures and systems, promotional activities and the evaluation of the marketing effort.

BUS 260 Introduction to Tourism — 3 credits

Overview of the history, likely direction and organizational structure of the tourism industry and its role in the local, national and international economy. Examines the nature and scope of the tourism industry, and some of the basic management issues involved. Explores the physical and cultural factors influencing tourism as well as aspects of international tourism, including the location of major attractions as related to underlying geographic, social and economic factors.

BUS 290 Integrated Business and Management Assessment for the AAB Degree — 3 credits

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 in Applied Science in Administration/Management Studies (AAB) 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.

Remember to contact your academic advisor for approval prior to registering for any courses to ensure that they will apply toward your degree as expected. Not every course is offered every term. Please check our Web site for course availability.

BUS 295 Integrated Business and Management Assessment for the ASB Degree — 3 credits

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 in Science in Business (ASB) 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

Develops skills in opportunity recognition, business concept development, and preliminary feasibility testing. Students gain the knowledge, skills, concepts, and strategies relevant for start-up and early stage entrepreneurs. The practical, hands-on approach encourages students to immerse themselves in the entrepreneurial experience.

BUS 310 Entrepreneurial Marketing — 3 credits

Focuses on the role of marketing within startup or growing small businesses. Analysis of entrepreneurial marketing strategies, techniques and management. Examines marketing activities required within the first one to two years of a company's life. Emphasizes steps to be taken in the new product/service development process. Students will learn how to be customer-oriented, to design and introduce products/services, to use advertising and public relations, to manage distribution channels, and develop the marketing section of a business plan.

BUS 311 Organizational Behavior — 3 credits

An overview of human behavior in work organizations. 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 312 Managing Human Resources — 3 credits

Topics include 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. Application of personnel management theories to real-world scenarios.

BUS 315 Labor Relations — 3 credits

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 320 Entrepreneurial Financing — 3 credits

Overview of financing startup or growing entrepreneurial ventures. Emphasis on the process of raising initial and ongoing equity capital from individual (angel) investors, institutional venture capitalists, and public markets. Analysis of entrepreneurial financing strategies, techniques, and management. Students examine how start-ups raise the initial capital for their ventures, the role of the business plan prospectus in this process, and the timing of future financing rounds as the company goes through its economic life cycle.

BUS 323 Business Ethics — 3 credits

Examines corporate governance, business government relations, the impact of economic and social change, organizational ethics, and the political role of business. Considers the measures businesses may use to anticipate and provide appropriate responses to changes in public and government expectations while defending legitimate business interests.

BUS 325 Women in Business — 3 credits

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

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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 330 Entrepreneurial Business Law — 3 credits

Focuses on the role of key legal issues affecting startup or growing small businesses. Analysis of entrepreneurial legal issues, techniques and management. Emphasis on steps to be taken to develop a legal strategy that will support the venture's growth over its expected life cycle.

BUS 335 Hospitality Service Systems Technologies — 3 credits

Explores consumer trends in the service industry and the technologies that are changing the way hospitality services are marketed, consumed, customized and packaged. Topics include POS, communications, customer service, sales, security, entertainment, special requests, guest experience and enhancement and information management.

BUS 340 Entrepreneurial Strategies — 4 credits

Examines the role of strategic planning within startup and growing entrepreneurial businesses. The ever-changing world of entrepreneurship does not provide a steady, linear business environment. Analysis of entrepreneurial growth strategies, tactics, and management. Covers the strategic activities required throughout the life cycle of an entrepreneurial venture. Particular emphasis will be placed on steps that should be taken to develop sustainable competitive advantages that will optimize the market value of the business over its expected life cycle.

BUS 345 Hotel/Restaurant Franchising — 3 credits

Covers domestic and international franchising initiatives. Topics include necessary management skills, franchise operations management, legal concerns, market-responsive sales, marketing, globalization strategies, raising structuring agreements, intellectual properties, regulatory concerns, quality control and compliance measures, joint ventures, mergers and acquisitions, franchising agreements and licensing programs.

BUS 350 Principles of Finance — 3 credits

An introduction to the discipline of finance. 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 365 Legal Environment of Hospitality Management — 3 credits

Overview of the legal implications of acts by hospitality professionals, employees, guests and visitors. Focus is on the analysis of rights, responsibilities and risk management involved with hospitality industry establishments. Discussion of historical and current liability, the nature of governmental regulations and predictability and provability in the current legal environment.

BUS 380 Managing Diversity in the Workplace — 3 credits

Examines how effective diversity management can improve organizational learning, knowledge creation, and profitability in culturally complex environments and organizations. Emphasis on such demographic variables as ethnicity, culture, age, religion, language, socio-economic and family status, education, sexual orientation, and physical and mental ability.

BUS 400 Information Security and Forensics — 3 credits

An introduction to cyber-threats, vulnerabilities, and their countermeasures as well as computer forensics and electronic evidence. Examines computer risks, network vulnerabilities, malware, hacker attacks, e-fraud, and wireless and Internet threats. Covers four tiers of cyber security: senior executive commitment and support; acceptable use policies (AUP) and other statements of practice; secure use practices; hardware, software, and network security tools.

BUS 425 Operations Management — 3 credits

Overview of the systematic planning, designing, operating, controlling and improving processes that transform inputs into finished goods and services. 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 430 Quantitative Methods — 3 credits

The course will explore 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 and PERT/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 435 International Business — 3 credits

An examination and analysis of global business in its historical, theoretical, environmental, and functional dimensions. Focus is on understanding the growing economic interdependence of nationals and its impact on managerial and corporate policy decisions that transcend national boundaries. Topics include the nature and scope of international business; the institutional, sociocultural, political, legal, ethical and economic environments; trade, foreign investment and development; transnational management (including global operations), strategic planning, human resources, marketing and finance; and international diplomacy and conflict resolution.

BUS 440 Business Supply Chain Management — 3 credits

An examination of logistics and supply chain systems. 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 trade-offs 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 445 Sustainable Hospitality Management — 3 credits

Concepts and techniques for planning tourism facilities (including hotels/restaurants) at the attraction and destination levels in a way to insure their sustainability. Emphasis on the exploration of economic, social and geographic factors in selected international locations. Topics include community-driven planning, tourism resources inventories, urban re-imaging strategies, and transportation and environmental planning.

BUS 452 Business Leadership — 3 credits

Focuses on research findings about leadership, leadership practice, and leadership skill development. Explores and evaluates leadership practices, behaviors, and personal attributes of leaders and includes case studies of leaders and organizations. The course balances theory with real-world applications for a practical, skill-building approach to leadership.

BUS 490 Integrated Business and Management Assessment (BPS Capstone) — 3 credits

A capstone course in the Bachelor of Professional Studies (BPS) in Business and Management. It requires students to reflect on their past academic

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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 Business and Management degree outcomes. The student will support the learning statements by providing documented evidence 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 an Individual Program Portfolio Report that forms the basis of the Integrated Business and Management Assessment.

BUS 495 Business Strategy — 3 credits

A capstone course in the BS Business program. It requires the student to complete a capstone case study course in managerial decision making intended to integrate previous training in the functional areas of business (accounting, finance, marketing, operations, and personnel). Focuses on problems from the point of view of the chief executive officer or general manager and is mainly concerned with the design and implementation of corporate strategy. All BUS 495 students are required to complete an online examination designed to assess the basic knowledge and understanding achieved by senior undergraduates in business. This examination will be delivered directly in the course, consist of 100 multiple-choice questions, and last three hours.

CYS 245 Introduction to Cybersecurity — 1 credit

This course provides introduction to the world of cybersecurity, and it expects no previous knowledge of the subject. In order to help students understand the threat, the course begins with a discussion of how hackers operate, reviewing some of the more common hacker methods and reconnaissance activities. The course then introduces the different terminology, products, services, and elements of cybersecurity, including both the physical security threats and the defenses. The course provides an introduction to security protocols and their role within a secure network infrastructure, and provides an overview of a variety of security technologies like firewalls, router security, Virtual Private Networks (VPNs), and wireless security. The course also includes a discussion of security policies and protocols, giving the student an appreciation of the importance of security policy. The course also addresses current topics in cybersecurity such as the Internet, email, social media, and Google hacking.

CYS 300 Computer System Security Fundamentals — 3 credits

This course provides an introduction to all aspects of computer security. It describes threats and types of attacks against computers to enable students to understand and analyze security requirements and define security policies. In the course we will discuss major models in computer security such as Bell-La Padula, Biba, and Clark-Wilson, and compare their properties and roles in implementation. Security mechanisms and enforcement issues will be introduced and security features of major application systems will be discussed as practical examples. Other topics include cryptography, planning for security, risk management, security standards, law, and ethics

CYS 345 Cybersecurity Defense in Depth — 3 credits

The course examines the world of cybersecurity risks and defenses which pose 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. 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 business and government perspectives using real-world scenarios to demonstrate actual cybersecurity threats and the strategies used to defend against those threats.

CYS 406 Computer Forensics — 3 credits

Emphasizes the technical and legal aspects of electronic evidence and the computer forensic investigative process. Topics include the discovery and recovery of electronic evidence stored on or transmitted by computers, networks, and cellular devices.

ECO 260 Introduction to Microeconomics — 3 credits

Examines contemporary economic systems based on tools of microeconomics. Covers theoretical analysis of prices and profits as guides to resource allocation, industrial structure, meaning of economic welfare, proper function of government in the economy, and distribution of income.

ECO 262 Introduction to Macroeconomics — 3 credits

Examines determinants of the Gross National Product, incomes and employment, sources' demand for goods and services, problems of unemployment and inflation, use of taxes, and government spending and control over supply of money to fight unemployment and inflation. Covers causes of economic growth and arguments for and against growth.

ELEC 152 Circuit Theory I — 4 credits

DC circuits. Introduction to the basic principles of electricity. Topics covered include: current, voltage, resistance (both linear and non-linear), Ohms Law, work and power, series and parallel resistance, resistance networks, Kirchhoff's Law, network theorems (Norton's, Thevenin's, superposition, and Millman's), mesh and nodal analysis, inductance, capacitance, and time constants.

ELEC 153 Circuit Theory II — 4 credits

Principles and applications of alternating current circuits, the sine wave, reactance, complex algebra and phasors, impedance, power in AC circuits, series and parallel impedances, impedance networks, and resonance.

ELEC 160 Electronics I — 4 credits

An introduction to the study of semiconductor devices such as PN-junction diodes, bipolar junction transistors (BJT), field-effect transistors (FETs,) Metal-Oxide Semiconductor field-effect transistors (MOSFET), which will enable the students to perform analysis of DC transistors biasing, small-signal single and multi-stage amplifiers using BJTs, FETs and MOSFETs, and frequency response of transistor single and multi-stage amplifiers.

ELEC 161 Electronics II — 4 credits

Analysis and application of advanced electronic circuits. Topics include differential amplifiers, stage gain in decibels, input and output impedances, linear IC operational amplifiers, frequency response, Bode plots, active filters, D/A and A/D circuits, oscillators and high frequency amplifiers. Emphasis is in troubleshooting of test circuits, and analysis based on computer simulation.

ELEC 201 Digital Electronics — 4 credits

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.

ELEC 202 Microprocessors — 4 credits

Principles and applications of microprocessors, including hardware and software, interfacing, assembly language programming, and microprocessor-based systems. Eight, 16, and 32-bit microprocessor technology and features are presented.

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ELEC 210
Programmable Logic Controllers — 3 credits

This course introduces students to programmable logic controllers (PLCs) and their applications. Topics include PLC programming, troubleshooting, networking, and industrial applications.

ELEC 303
Advanced Digital Electronics — 4 credits

Systematic design methods for sequential state machines. Specification and modeling of sequential systems. Design implementation using programmable logic devices.

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ELEC 304 Microprocessors II — 4 credits

Design of microprocessor-based systems. A detailed study of microprocessor/microcontroller applications in data acquisition and process control systems.

ELEC 305
Introduction to Nanotechnology — 3 credits

Introduction to the underlying principles of nanotechnology, nanoscience, and nanoengineering. Introduces scientific principles and laws relevant on the nanoscale. Discusses applications in engineering, physics, chemistry, and biology.

ELEC 310
Basic Nanofabrication Process — 3 credits

An introduction to the basic principles and methods of nanofabrication and the associated metrology/characterization methods used in industrial and research applications of nanotechnology. Discusses the grand challenges of nanofabrication with respect to industrial scaling of nanofabrication techniques and showcases examples of specific industrial applications in electronics, photonics, chemistry, biology, medicine, defense, energy, etc.

ELEC 321 Control Systems — 3 credits

Emphasizes the practical applications of control systems. Covers the terminology, concepts, principles, procedures, and computations used by engineers and technicians to analyze, select, specify, design, and maintain all parts of a control system. Emphasizes the application of established methodology with the aid of examples, calculators, and computer programs. Derivatives and integrals are introduced and explained as they are used. Emphasis is on developing an intuitive grasp of how derivatives and integrals relate to physical systems.

ELEC 330
Electronic Communications — 4 credits

Principles and applications of communication circuits, RF circuit theory (transmitters, receivers), modulation (AM, FM), transmission lines and media, wave propagation, analog versus digital communication techniques, protocols, and communication networks.

ELEC 345 Electrical Machines — 3 credits

Energy storage and conversion, force and emf production, electromagnetic induction, transformers, generators. Performance characteristics of DC, induction, and synchronous machines. Stepper motor and brushless DC machines.

ELEC 350 Power Electronics — 3 credits

This course covers principles of operation of power semiconductor devices such as Thyristors and IGBTs. Also covers fundamentals of power converter circuits including DC/DC converters, phase controlled AC/DC rectifiers, and DC/AC inverters.

ELEC 360 Generation and Transmission of Electric Power — 3 credits

Electric power generation and transmission systems; power flow; economic scheduling of electric power generation; transmission operations; and power system faults.

ELEC 370 Instrumentation and Data Acquisition — 3 credits

This course provides and introduction to virtual instrumentation and data acquisition. Topics covered include virtual instruments, sub virtual instruments, structures, and data acquisition.

ELEC 410 Nanotechnology Process Equipment — 4 credits

Overview of the equipment used in nanofabrication processes at the manufacturing level as well as research and development stages. Covers nanotechnology, 300-mm wafer processing, "green" processes and devices, new fabrication advances and non-vacuum processing tools. Examples of equipment used in applications for micro/nanoelectronics and photovoltaics will be presented.

ELEC 415 Introduction to Nanofabrication Manufacturing Technology — 3 credits

An introduction to the fundamentals and applications of nanofabrication manufacturing technology.

ELEC 420 Micro-Electro Mechanical Systems — 3 credits

Focuses on MEMS and NEMS. Topics include MEMS and NEMS architecture, synthesis, modeling, and control.

ELEC 495 Integrated Technology Assessment — 3 credits

A capstone course for the B.S. Electrical Engineering 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 Electronics Engineering Technology degree outcomes. The learning statements must be supported by documented evidence that demonstrate that the outcomes have been met. Students learn how to develop an online portfolio during the first four weeks 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 portfolio. All ELEC 495 students are required to complete an online examination designed to assess the basic knowledge and understanding achieved by senior undergraduates in electrical engineering technology. This examination will be delivered directly in the course, consist of 120 multiple-choice questions, and last three and a half hours.

IT 210 Object Oriented Programming — 3 credits

Covers problem solving and algorithm development using the object-oriented programming language Java. Introduction to object-oriented features including encapsulation, inheritance, and polymorphism. Examines the development of processes of design, coding, debugging, and documentation. Focuses on techniques of good programming style.

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IT 310 E-Commerce Principles and Web Security — 3 credits

Introduces basic concepts of e-commerce including e-commerce infrastructure and business models, marketing models, electronic financial transactions, search engine submission, and various online payment systems. Includes an extensive discussion on Internet technology and security. Web security topics include technologies related to consumer and enterprise/government security, authentication, public-key encryption, digital certificates, trusted computing standards, and web services. Privacy, ethical issues, and the impact of e-commerce on education, business, law, national security, and society are discussed.

IT 315 Human Computer Interaction — 3 credits

The application of human factors in the design, development and usage of information systems. Topics include the history, evolution, and current state of the art in the design, testing, and implementation of human computer interface (HCI). Among the study areas/learning disciplines associated with HCI design, development, and testing are computer science, engineering, psychology, human cognition, and ergonomics.

IT 320 Computer Systems Architecture — 3 credits

This course provides an introduction to the basic components and structure of the computer and the evolution of computer systems. Considers in detail the operation of the CPU, memory, input/output, instruction set architecture, pipelining, operating systems, and communications. The course focuses on the coverage of modern architectures, key system features, networking, and distributed services.

IT 325 Introduction to Multimedia — 3 credits

Basic concepts of multimedia and an introduction to industry standard applications and emerging technologies. Using different tools, students design multimedia applications that incorporate text, video, sound, graphics, and animation.

IT 330 Internet Programming — 3 credits

A comprehensive introduction to Web development using scripting languages used in industry. Covers client side and server side development, including the use of Javascript for client side programming and PHP for server side programming.

IT 350 Business Data Communications — 3 credits

Overview of the current theory and practice of business data communications and networks. Emphasis on the role of the telecommunications industry in the growth of information societies and their reliance on knowledge and information services to stimulate economic growth. Examines the seven-layered Open Systems Interconnection (OSI) reference model proposed by the International Standards Organization (ISO) and the notion of network architecture to manage information and communications.

IT 360 Operating Systems — 3 credits

Introduction to the basic components and structure of a generic operating system. Considers in detail processes, process management and synchronization, threads, interrupts and interrupt handling, memory management, virtual memory management, resource allocation, and an introduction to file systems, protection, and security.

IT 370 Database Management Systems — 3 credits

Examines the technology and impact of the design of database systems on the organization. Covers the application, design, and implementation of database systems. Topics include an introduction to basic database concepts, database design principles including E-R diagrams and database normalization, SQL queries, transaction management, distributed databases, data warehousing, and database administration. Course focuses on the relational model.

IT 380
Overview of Computer Security — 3 credits

Offers an in-depth look at operating system security concepts and techniques. Examines theoretical concepts of computer security. Explores security strategies, the advancement of security implementation, and timeless problem-solving strategies.

IT 390 Project Management — 3 credits

Explores system development life cycle (SDLC) and project life cycle to enhance skills in budget and timeline management. Use of project management software to design project schedules, using bar charts, PERT and critical path method.

IT 402 Network Security — 3 credits

Covers principles, procedures, hardware, and software related to network security. Topics include malicious code, intrusion detection, prevention and response, cryptographic protocols for privacy and integrity. Explores trade-offs between risk of misuse, cost of prevention, and societal issues.

IT 404 Web Security — 3 credits

Focuses on key concepts of web security from both client-side and server-side perspectives. Client-side concepts include intrusion, detection, and recovery and secure online transactions. Server-side concepts include Web server security log analysis, Web servers, and firewalls. Additional topics include cryptology, digital identification, encryption, and privacy and security for users.

IT 408 Information
Assurance Management — 3 credits

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

This course provides a detailed exposure to cryptographic techniques used to create secure data transmission and data storage. Coverage of symmetric versus asymmetric encryption and decryption, algorithms, complexity, encryption key length, and the systems and applications for performing the encryption and hashing process are presented. The characteristics of security protocols used to provide secure Web transactions, including VPN tunnels, secure email, secure ftp, and secure telnet, are explored in detail.

IT 412 Advanced
Object Oriented Programming I — 3 credits

Covers in depth such topics as encapsulation, inheritance, and polymorphism. Uses Java programming language. Provides students with analysis, design, and testing tools to allow for the successful creation of reliable software applications. Different object-oriented software engineering methodologies are presented, and testing techniques are discussed in a way that will allow them to be used regardless of the development paradigm.

IT 414 Advanced
Object Oriented Programming II — 3 credits

A continuation of IT 412 Advanced Object Oriented Programming I. Discussion covers the discipline, methodologies, and techniques of software development. Topics include introduction and implementation of algorithms related to trees, graphs, searching and sorting.

IT 416
Data Structures and Algorithms — 3 credits

Covers static data structures (arrays and records), strings and string manipulations, dynamic data structures (linked lists, stacks, queues, trees, graphs), operations on data structures (searching, sorting, traversals) and files (sequential, indexed sequential, direct files) using the Java programming language.

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IT 418 Software Systems Analysis and Design — 3 credits

Concepts and techniques of modern systems analysis and design. Examines approaches to systems analysis and design, including traditional approaches to the system development life cycle and modeling of system requirements and design. Describes the role of the analyst in investigating current systems, defining IT requirements, working with technical and non-technical staff, and making recommendations. 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

A study of the architecture, implementation and related protocols of (1) Broadband technologies such as ISDN, SMDS, DSL, Cable, WDM, DWDM and SONET, (2) Packet Switching Technologies such as switching methodologies, X.25, Frame Relay, and ATM, (3) TCP/IP topics such as IP protocol, TCP protocol, IP addressing and routing, ARP, and routing protocols. Other topics include the basic structure of the global Internet, and network security issues such as intrusion detection, firewalls, encryption, and digital signatures, the basics of VPNs (Virtual Private Networks) and their advantages and disadvantages.

IT 424 Network Operating Systems — 3 credits

Identifies the main functions of operating systems and network operating systems, and distinguishes between the two. Examines and compares the basic features of common network operating systems such as Novell NetWare, all versions of Windows, Unix, and Linux. Discusses the common examples of network utility software and Internet software, software licensing agreements, and network security and backup/recovery issues.

Remember to contact your academic advisor for approval prior to registering for any courses to ensure that they will apply toward your degree as expected. Not every course is offered every term. Please check our Web site for course availability.

IT 426 Wireless Technology — 3 credits

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 future technologies such as Bluetooth, digital audio broadcast (DAB) and IMT2000.

IT 428 Telecommunications Management — 3 credits

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 Systems Design and Management — 3 credits

This course covers the design and management of networks used in home, business, and industry from the hardware and software perspective. The course will focus on LAN and WAN design and will be supplemented with real-world examples and case studies where reliability, speed, throughput, and security are required. The use of Internet Protocols to provide connectivity and management functionality will be covered in detail.

IT 432 Web Authoring — 3 credits

This project based course, examines and demonstrates the elements of World Wide Web page development including both page and site designs, copyright issues, HTML editors and WWW related resources. Each participant will use problem based learning experiences to create basic WWW pages culminating in a final WWW site.

IT 442 Internetworking with TCP/IP — 3 credits

Examines the TCP/IP Protocol suite and its role in the global Internet. Compares the TCP/IP network layers to the OSI layers. Covers IP (Internetwork Protocol) including, datagrams, IPv4 and IPv6 addressing schemes, the address resolution protocol (ARP), delivery and routing of IP packets, subnetworks and masks, TCP (Transmission Control Protocol), flow control, error detection and correction, TCP segments and their format, the DNS (Domain Name System), sockets and port addresses. Provides an introduction to the main application layer protocols such as TELNET, FTP, SMTP, SNMP, HTTP, HTML, and CGI.

IT 450 Enterprise Network Management — 3 credits

A study of planning, organizing, and controlling the enterprise network management activities for the potential network and systems administrator. Emphasis on current techniques and future trends including how to monitor and analyze network events and how to store and retrieve performance data. Different paradigms for network management such as the Internet Simple Network Management Protocol (SNMP), Remote Monitoring (RMON), and Open System Interconnection Common Management Information protocol (OSI CMIP) will be discussed. Covers web-based management and the ITU-T Telecommunications Management Network (TMN) approaches.

IT 495 Integrated Technology Assessment — 3 credits

A capstone course for the B.S. Information 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 Information Technology degree outcomes. The learning statements must be supported by documented evidence that demonstrate that the outcomes have been met. Students learn how to develop an online portfolio during the first four weeks of this 15-week 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 portfolio.

NUC 240 Atomic and Nuclear Physics — 4 credits

Includes the study of the structure of the atom and of the nucleus, of atomic and nuclear energy states, wave-particle duality, electron and nucleon spin, multi-electron atoms, atomic spectra, atomic bonding, electron motion, nuclear reactions, radioactivity, fission, and fusion. Examines the theories postulated and proven that formed the branch of physics known as atomic physics in the late 19th century and early 20th century and became the foundation for the development of nuclear physics and electronics shortly thereafter. This course will enhance learning of reactor physics, radiation safety, electronics, materials science, and chemistry in future courses as well as in your professional and military career.

NUC 245 Thermodynamics — 3 credits

Basic thermodynamics concepts, including energy, temperature, specific heat, enthalpy, entropy, and pressure. Topics include the First and Second Laws of Thermodynamics, Rankine power cycles, use of steam tables and Mollier diagrams, properties of gases, vapors, mixtures, and pure substances.

NUC 255 AC/DC Electrical Theory — 3 credits

Introduction to the fundamentals of charge, AC and DC current, voltage, capacitance, inductance, energy, power, Kirchhoff's laws, loop and nodal analysis, and linear voltage-current characteristics.

NUC 320 Materials — 3 credits

A study of materials used in engineering applications. Topics include atomic bonding, crystalline and noncrystalline structures, diffusion, mechanical and

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thermal behavior, phase diagrams, kinetics, failure analysis and prevention, structural materials, ceramics, polymers, composites, and materials used in engineering designs. Characteristic properties and methods of conducting common tests and interpreting results will also be discussed in this course.

NUC 325 Nuclear Materials — 4 credits

The study of radiation effects on metallic and ceramic materials; response of materials in a reactor environment; metallurgy of uranium, thorium, and plutonium; properties of oxides and carbides; creep, swelling, densification, stress, corrosion, and cracking.

NUC 330 Reactor Core Fundamentals — 3 credits

A study of the basics of neutron chain reaction systems. Topics include neutron cross sections, flux, reaction rates, fission processes, neutron production, neutron multiplication, 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

Overview of the basic aspects of design, layout and function of all major systems associated with nuclear power plant designs typically used for U.S. power production. The approach to the course is to build a power plant system by system. Covers major system components, controls and their design features. Emphasizes the systems' interconnection and functions. Systems are grouped/classified regarding their use and characteristics, e.g. production vs. safety, primary (nuclear interface) vs. balance of plant, active vs. passive.

NUC 495 Integrated Technology Assessment — 3 credits

A capstone course for the B.S. Nuclear Engineering 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 Nuclear Engineering Technology 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 four weeks of this 15-week 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 portfolio. All NUC 495 students are required to complete an online examination designed to assess the basic knowledge and understanding achieved by senior undergraduates in nuclear engineering technology. This examination will be delivered directly in the course, consist of 120 multiple-choice questions, and last three and a half hours.

TECH 201 Foundations of Technology Problem Solving I — 4 credits

An introduction to the basic concepts of calculus and their applications in engineering technology. Use of limits, derivatives, and integrals to solve problems related to different engineering technology disciplines.

TECH 202 Foundations of Technology Problem Solving II — 4 credits

A continuation of TECH 201. Focuses on the applications of calculus in engineering technology. Topics include sequences and series, polar coordinates, introduction to ordinary differential equations, eigenvalue solutions, and Laplace transform methods.

TECH 205 Discrete Structures — 3 credits

Provides the mathematical foundations for information technology including set theory, patterns of inference, elementary combinatorics, automata theory and formal languages, cryptography and graph theory.

TECH 230 Technology and Society — 3 credits

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.

TECH 290 Integrated Technology Assessment for the AST — 3 credits

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 Science in Technology (AST) 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 for the AAT — 3 credits

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 (AAT) 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 330 Engineering Economics — 3 credits

The application of economics and decision theory to the evaluation of engineering alternatives in planning, developing, constructing, and managing engineering projects.

TECH 340 Introduction to Energy Utilization — 3 credits

Introduction to current and potential energy sources, the link between energy and wealth, and the consequences of action or inaction concerning energy and the environment.

TECH 490 Integrated Technology Management Assessment — 3 credits

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 Pro-

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Excelsior College Course and Exam Information and Registration:
www.excelsior.edu/courses
www.excelsior.edu/exams

Course/Exam Approval:
www.excelsior.edu/MessageCenter

College Publications, Applications, and Forms:
www.excelsior.edu/publications

Excelsior College Learning Resources:
www.excelsior.edu/library
www.excelsior.edu/bookstore
www.excelsior.edu/MyExcelsior, click on the Resources tab

Excelsior College Online Writing Lab (OWL):
www.excelsior.edu/OWL

Free Writing Resources (*scheduled to debut Fall 2011*),
Online Software Skills Training through Atomic Learning *(EC course and exam registrants only)*,
Online Tutoring Services through SMARTHINKING™ *(EC course and exam registrants only)*
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fessional Studies 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 Management Assessment report.

TECH 495
Integrated Technology Assessment 3 credits

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 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.

Graduate Level

BUS 500 Accounting for Managers 3 credits

Introduces accounting procedures and concepts used to meet the information needs of management. Covers the identification, analysis, interpretation, and reporting of cost information for decision making and control in emerging economy organizations.

Remember to contact your academic advisor for approval prior to registering for any courses to ensure that they will apply toward your degree as expected. Not every course is offered every term. Please check our Web site for course availability.

BUS 501 Business Communications 3 credits

Focuses on the development of clear written communication and oral presentation skills. Examines a variety of communication techniques, formats, and processes for sharing organizational information. Explores the use of audiovisual and electronic media to enhance the quality of presentation and communication.

BUS 502
Global Business Environment 3 credits

Examines the global business environment and its impact on an organization's business strategy and decision making. 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 (NGO's), foreign direct investment, and currency risk challenges.

BUS 503 Quantitative Analysis 3 credits

A review of the major quantitative techniques required for successful performance in graduate level quantitative courses. Emphasizes descriptive statistics, inferential statistics and math models with business applications to analyze management and organizational problems. Topics include measures of central tendency and variation, probability distributions, estimation, hypothesis testing, linear and multivariate regression and correlation, decision theory, linear programming, time series and supply chain management, transportation and assignment models, and inventory management and queuing theory models.

BUS 504
Human Resource Management 3 credits

The evolution of human resource management and an overview of the basic functions of HR management, including: manpower planning; recruitment and selection; job analysis and design; performance management and appraisal; motivation; labor law; training and development; compensation and rewards; HR strategy; strategic, corporate, and HRM

objectives; HRM policies, practices and leadership behavior; employee involvement; team building; and self-managed teams.

BUS 505 Finance — 3 credits

Focus on balancing finance, marketing, and operating decisions for doing business in a multi-currency environment. Includes a review of the basic role of finance in a corporation and how management decisions are made from the finance perspective.

BUS 506 Marketing — 3 credits

Presents a systematic framework for understanding marketing management and strategy. Focuses on creating and executing marketing strategies and policies. Examines the ethical, legal, social, and environmental issues relevant to the development of sound marketing strategies and policies.

BUS 511 Strategy and Policy — 3 credits

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.

BUS 520 Operations Management — 3 credits

Covers the roles of manufacturing and service operations in the organization. Topics include 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.

BUS 530 Project Management Principles and Application — 3 credits

Introduces the discipline of project management from the perspective of the professional practitioner. Uses the Project Management Body of Knowledge as a framework for managing projects in today's business environment.

BUS 535 Quality and Productivity Methods in the Management of Technology — 3 credits

Presents current management techniques and processes for improving products, services, and productivity in organizations that make extensive use of technology. Focuses on issues and solutions specific to the management of technology.

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 life cycle; and application of lessons learned in contemporary business cases.

BUS 550 Contingency Planning — 3 credits

Leaders and managers need to know what the potential causes are and how to sustain control of interruptions. This course examines the planning process in organizations to continually confront the unlikelihood of a disaster occurring 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.

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BUS 553 Organizational Behavior — 3 credits

Examines the application of behavioral science to organization behavior, formal and informal groups, structure and management processes, decision making and controlling processes, communication within the organization and organizational development. Covers: theories of organization and management; individual behavior; group dynamics; organizational change; organizational performance, efficiency, and effectiveness; and the impact of technology on the workplace and its constituents.

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. Utilizes macro and micro tools for working with change, including management skills and styles, communications patterns, and force-field and gap analysis. Covers the human and economic factors in organizational change and restructuring.

BUS 570 Information Technology — 3 credits

Examines the strategic, operational, and ethical uses of information technology. Explores global and electronic markets and data management. Examines how IT can support customer and supply chain management.

BUS 580 Management of Information Security — 3 credits

Focuses on the managerial aspects of information security, including access control models, information security governance, and information security program assessment and metrics.

BUS 590 Special Topics in Network Security Management — 3 credits

Provides a comprehensive overview of network security from a management perspective. Topics include risk assessment and management, computer security, network security threats, and disaster planning.

CYS 541 Ethics, Legal, and Compliance Issues in Cybersecurity — 3 credits

Coursework examines the ethical, legal, and regulatory compliance issues related to the practice of cybersecurity. Focuses on the requirements, challenges, and dilemmas of data protection, due diligence, privacy laws, fraud and risk management, intellectual property, and ethical corporate codes of conduct. Covers key mandates and laws, including the Foreign Corrupt Practices Act (FCA) and the Payment Card Industry Data Security Standards (PCI DSS). To minimize liabilities and reduce risks from electronic and physical threats and reduce the losses from legal action, the information security practitioner must understand the current legal environment and stay informed of emerging laws and regulations.

CYS 575 IT Risk Analysis and Management — 3 credits

The 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.

Choosing a Degree Program in Technology

You may find it helpful to compare the requirements for each degree with your own educational background and career aspirations to determine the best degree for you. Professionals in your field of choice may be able to advise you about the preparation necessary for particular areas, and graduate school admissions counselors can advise you about requirements for entry into specific graduate schools. Excelsior College advisors can offer you general information about how previous study might apply to degree requirements and about your general options for continued study.

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The baccalaureate degree programs in Electrical Engineering Technology and Nuclear Engineering Technology are accredited by the Technology Accreditation Commission of ABET, http://www.abet.org, telephone: 410-347-7700. ABET is a specialized accrediting agency recognized by the Council for Higher Education Accreditation (CHEA).

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The Technology Degrees

Because of limited technological degree program opportunities across the country, completing degree requirements at a distance is often the only option for adults with technical backgrounds acquired at institutions of higher education, on the job, and/or in the military. As an adult learner undertaking study for a technology degree at a distance, you should familiarize yourself with the various academic requirements and policies that form the bases of available programs and make your educational decision based on a complete understanding of all relevant factors. Included here is a summary of the most important information regarding the Excelsior College technology degree programs.

Your Personalized MyExcelsior Account:
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Student Policy Handbook:
www.excelsior.edu/StudentPolicyHandbook

Admissions:
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Technology Programs Advising Team:
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Excelsior College Community Resources:
www.excelsior.edu/MyExcelsior, click on Communities tab

Note: **Throughout this catalog the term "credits" is used to indicate semester hours. Quarter hours are converted to semester hours by multiplying quarter-hour values by two thirds.**

Policies Specific to *All* Technology Programs

The Excelsior College *Student Policy Handbook* is your resource for understanding the academic and administrative policies that are important to your academic success. It includes a wide range of information from 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.

Policies and procedures that apply specifically to the technology degree programs are listed on the following pages. File your *Handbook* with your other important academic papers and this program catalog for easy reference.

Minimum Academic Average

You must have a cumulative grade point average of C (2.00) or better in order to qualify for graduation from Excelsior College. Only courses or examinations with grades of C or higher (to include pass [P] grades) may be used to satisfy technology component and other specific requirements.

Time Limits on Coursework

Since the content of different technologies changes at varying rates, most degree programs have specific time limits applied to certain technology component courses submitted for transfer credit. Unless otherwise specified, the time limit for the application of credits for information technology and electrical technology is ten years prior to the date of enrollment. See particular degree information for further details.

Integrated Technology Assessment

All Bachelor of Science students must complete this assessment course. It is an online portfolio development experience that requires students to reflect on their past academic and professional experiences

and use the information gained to develop learning statements related to degree program outcomes. These learning statements must be supported by documented evidence demonstrating that the outcomes have been met.

Second Degree Restrictions

No student is permitted to earn a second technology degree in the same or similar area of study or focus. Please refer to your *Student Policy Handbook* for specific information.

Mathematics Policy

Arithmetic courses and other mathematics courses designated as developmental or remedial may not be used toward the degree. No more than 9 credits of math below the level of calculus may be applied to any degree. Repre sentative titles of math courses below the level of calculus include College Math, College Algebra, Trigonometry, and Precalculus.

Business/Industry/Military Training

Courses offered by business, industry, and the military tend to be application-oriented and may not contain sufficient depth and breadth of content to meet our technology core requirements. Transfer credit from the Community College of the Air Force, for example, is usually applicable to the arts and sciences, career/professional, or free elective credits components of our technology degree programs. We encourage you to contact our Admissions Office before you enroll if you have questions about how your business, industry, and/or military courses will apply.

Diversity

Excelsior College encourages you to plan your program in the humanities and social sciences to include study of the diverse perspectives of various ethnic and cultural groups as well as investigation of the fundamental assumptions of Western civilization.

Requirements for *All* Technology Degree Programs

Every Excelsior College technology degree program requires a specific number of semester hours of credit in each of its component areas. These areas include an arts and sciences component, a technology component (or, in some programs, a career/professional component) and a free elective component in which you may earn credits through applicable coursework or examinations in subject areas that interest you to individualize your program design.

Within the arts and sciences component, you must earn a specified number of credits by successfully completing coursework or examinations in the humanities, social sciences/history, and natural sciences/mathematics areas. Within the technology component (or career/professional component), you must earn a specified number of credits by successfully completing coursework in core requirement and technology elective areas. The free elective component includes courses taken in any discipline. A maximum of two credits in physical education activity courses may be applied to your degree.

Written English Requirement (WER)

Students are required to demonstrate competence in expository writing in English by completing one of the following for the associate degree and two of the following for the bachelor's degree:

1. **Examination:** Successful completion of an approved college-level proficiency examination such as:
   a. Excelsior College® Examinations (ECE), **ENGx111 English Composition** (this completes the written English requirement for the bachelor's degree)
   b. UExcel® College Writing examination
   c. Advanced Placement (AP) English Examinations

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Note: Excelsior College does not accept the CLEP General Examination in English Composition with Essay toward this requirement.

2. **College coursework:** Successful completion of one college course for the associate degree or two college courses for the bachelor's degree (minimum three semester or four quarter-hour credits; minimum grade of C from one of the following options:
   a. Writing courses such as Excelsior College's **ENG 101 English Composition**, **ENG 201 Writing for the Professions**, or **MLS 500 Graduate Research and Writing** (some restrictions apply).
   b. Two institutionally designated writing-intensive, writing-emphasis courses.
   c. Two applied writing courses. The applied writing courses must focus on different applications of the writing process.

   Note: Coursework must be from an English-speaking institution. English as a Second Language courses may not be used to satisfy this requirement.
3. **Statement of proficiency:** 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.
4. **Noncollegiate-sponsored instruction:** Successful completion of a noncollegiate-sponsored instructional writing course or program that has been evaluated by either the New York State Board of Regents National College Credit Recommendation Service (formerly known as National PONSI) or the American Council on Education Center for Adult Learning and Educational Credentials (ACE CREDIT), and contains a recommendation of at least three semester-hour credits for the course. This course must contain an actual assessment of the student's competence in expository writing in English.

Courses or examinations used to fulfill the written English requirement may not be used to satisfy the humanities requirement. Students who have a bachelor's degree (or higher) from a U.S. regionally accredited college/university are exempt.

Following are examples of courses from other colleges and universities that may apply toward the written English requirement:

- College Writing
- Effective Writing
- English Composition
- Expository Writing I
- Freshman Composition
- Introduction to Writing

Information Literacy

Information Literacy Requirement

Students are expected to demonstrate competency in information literacy. The standards, performance indicators, and outcomes for this requirement were selected from the Association of College and Research Libraries (ACRL) Information Literacy Competency Standards for Higher Education. Competency will be assessed through a one-credit pass/fail course offered online by Excelsior College **[INL 102 Information Literacy]** or through successful completion of a course taken at a regionally accredited college covering comparable content.

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

Students seeking additional information should check the Excelsior College Web site or consult with their academic advising team.

Associate Degree Programs in Technology

For the technology student, the Excelsior College School of Business & Technology offers three programs at the associate degree level focused specifically on high-growth industries with exciting career opportunities. You may apply workplace and military training as credit, accelerating the path to your degree.

Excelsior College offers virtual student chapters of the Association of Computing Machinery (ACM) and Institute of Electrical and Electronic Engineers (IEEE) of the American Nuclear Society (ANS). Memberships are open to current Excelsior College students.

Visit www.excelsior.edu for more information about these chapters.

Image courtesy of the Department of Defense

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Requirements and Policies for the Associate Degrees in Technology

Every Excelsior College technology degree program requires a specific number of semester hours of credit in each of its component areas. These areas include an arts and sciences component, a technology component (or, in some programs, a career/professional component) and a free elective component in which you may earn credits through applicable coursework or examinations in subject areas that interest you to individualize your program design.

Within the arts and sciences component, you must earn a specified number of credits by successfully completing coursework or examinations in the humanities, social sciences/history, and natural sciences/mathematics areas. Within the technology component (or career/professional component), you must earn a specified number of credits by successfully completing coursework in core requirement and technology elective areas. The free elective component includes courses taken in any discipline.

image courtesy Dept. of Defense

You are subject to the degree requirements in effect at the time of your 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 professional practice. Changes may affect both enrolled and prospective students. It is your responsibility to keep informed of such changes. We make every effort to inform you of changes as they occur. Current information about degree requirements is posted on our Web site. Information about changes to degree requirements is also made available on our Web site.

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Note: **Where an Excelsior College exam or course will satisfy a requirement, it is shown in [brackets]. Excelsior College® Examinations (ECE) have an "x" after the department, for example, [BUSx310 Ethics: Theory & Practice].**

Associate in Applied Science in Technical Studies

(with area of focus)

While this degree program was designed specifically to meet the needs of those with military backgrounds by recognizing the college-level learning that takes place as a result of military training, it may also be appropriate for some non-military students. Graduates of the Associate in Applied Science in Technical Studies program who are interested in continuing on to baccalaureate-level study should contact the technology advising team for advice on the preferred program of study.

This degree program offers areas of focus in the following subject areas:

- Computer Technologies
- Electromechanical Technologies
- Electronic/Instrumentation Technologies
- Nuclear Technologies
- Power Plant Technologies

Program Outcomes

We expect that as a graduate of the Associate in Applied Science in Technical Studies degree, you will be able to:

1. Demonstrate effective communication skills.
2. Use the principles of natural sciences and mathematics in solving technology problems.
3. Demonstrate introductory college-level knowledge in one or more of the social sciences subject areas.
4. Demonstrate a comprehension of cultural diversity, human behavior, and the relationship between technology and society.
5. Demonstrate the application of technology in the area of focus.

Degree Requirements

60 credits

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

- 20 credits minimum in the arts and sciences
- 20 credits minimum in the career component
- 20 credits in the free electives component (to include information literacy)

Note: Beginning January 1, 2012, an associate degree capstone course will be required.

CHART 1

Associate in Applied Science Degree in Technical Studies

AAS | **Total Degree Credits Required: 60**

Arts and Sciences Component

	Credit Hours
Written English Requirement	3
Humanities (must be in subject other than writing)	3
Social Sciences/History	3
Behavioral Sciences	3
Natural Sciences/Mathematics (one natural science course and one math course)	6
Arts and Sciences Electives	2
Total Arts and Sciences	**20**

Career Component *

Total Career Component	**20**

Elective Component

Free Elective Component (includes 1-credit Information Literacy Requirement)	20
Total Elective Component	**20**

*Beginning January 1, 2012, an associate degree capstone course will be required.

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I. 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 Technical Studies degree requires a minimum of 20 credits in the arts and sciences, distributed as follows:

Humanities

At least 6 credits must be earned in humanities. Three credits must come from a course that satisfies the written English requirement **[ENGx111 English Composition, ENG 101 English Composition, ENG 201 Writing for the Professions]** (see page 69). The remaining 3 credits must be in humanities subjects other than writing, which include literature, foreign languages, religion, philosophy, art, ethics, and music.

Social Sciences/History

At least 6 credits must be earned in social sciences/history, including a course (minimum 3 credits) in behavioral sciences. Social sciences/history subjects include, but are not limited to, political science, anthropology, economics, geography, and history. Behavioral sciences subjects include, but are not limited to, psychology and sociology.

Natural Sciences/Mathematics

At least 6 credits must be earned in natural sciences/mathematics (one course in a natural science and one course in mathematics at the level of College Algebra and above). Some sample subjects are biology, chemistry, physics, geology, College Algebra, trigonometry, calculus, and statistics.

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Information Literacy Requirement FAQ:
www.excelsior.edu/infoLitFAQ

Excelsior College Community Resources:
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II. Career Component (20 credits)

A minimum of 20 credits are required in the career component. The career component consists of technology credits related to your career field.

III. Free Elective Component (20 credits)

The degree program allows room for up to 20 credits in free electives. Applied to this component is the 1 credit for Excelsior College's information literacy requirement **[INL 102 Information Literacy]**. See page 70 or refer to our Web site for more information about information literacy.

Associate in Science in Nuclear Technology

Nuclear Uniform Curriculum Program

NLO Path

The Associate in Science in Nuclear Technology degree, as part of the Nuclear Uniform Curriculum Program (NUCP), is designed specifically for students who want to start their nuclear career as non-licensed nuclear operators. The NUCP provides a framework within which students obtain foundational knowledge of core nuclear industry topics in technology, the physical sciences, and mathematics, as required by the National Academy for Nuclear Training (NANT). Students who successfully complete this specific curriculum will receive an NUCP certificate, allowing them the opportunity to bypass duplicate fundamentals training topics once employed by a nuclear facility.

In order to receive the NUCP certificate upon graduation, a score of 80 percent or better is required for each course covering core fundamentals and discipline-specific learning objectives in addition to satisfactory completion of the associate degree requirements.

Program Outcomes

We expect that as an Excelsior College Associate in Science in Nuclear Technology graduate you will be able to:

1. Demonstrate a fundamental knowledge of nature with the ability to understand, measure, and provide quantitative expressions of the phenomena of nature.
2. Apply the fundamentals of algebra, trigonometry, and higher mathematics to problem solving in nuclear areas.
3. Practice good oral and written communications.
4. Demonstrate an understanding of our cultural heritage, interpersonal relationships, the interrelationship between technology and society, and those values essential for intelligent and discerning judgments.
5. Demonstrate a working knowledge of computer applications for technical problem solving appropriate to the nuclear engineering technology discipline.
6. Exhibit technical skills and techniques in electrical theory, health physics, radiation protection, shielding, reactor core fundamentals, reactor systems, applied thermodynamics, nuclear instrumentation and control systems, and reactor safety.
7. Demonstrate an understanding of nuclear processes and operation, the relationship between design and operation, and the role of the human and environmental interface in the operation and maintenance of nuclear systems.
8. Demonstrate knowledge of nuclear plant operation, which includes the areas of radiation protection procedures, current applicable rules and regulations, maintenance and control of nuclear systems, quality assurance, and environmental integrity.

Degree Requirements

61 credits

The Associate in Science in Nuclear Technology – NUCP NLO Path degree requires a minimum of 61 credits, distributed as follows:

- 30 credits minimum in the arts and sciences
- 30 credits minimum in the nuclear technology component
- 1 credit to satisfy the information literacy requirement

I. Arts and Sciences Component (30 credits)

The Associate in Science in Nuclear Technology, NUCP NLO Path, requires a minimum of 30 credits in the arts and sciences distributed as follows:

Written English Requirement

At least 3 credits must come from a course that satisfies the written English requirement (see page 69). **[ENGx111 English Composition, ENG 101 English Composition, ENG 201 Writing for the Professions]**

Humanities

You must successfully complete at least 6 credits in the humanities, with at least 3 credits earned in subjects other than writing. Humanities subjects other than writing include, but are not limited to, literature, foreign languages, religion, philosophy, art, ethics, and music. 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 6 credits in social sciences/history. Social sciences/history subjects include, but are not limited to, behavioral sciences, political sciences, anthropology, and economics.

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Natural Sciences/Mathematics

You must successfully complete a minimum of 15 credits in natural sciences/mathematics as follows:

- Mathematics at the level of College Algebra and above
- Physics I
- Physics I Lab
- Chemistry
- Atomic Physics
- Heat Transfer/Fluid Flow

Note: One lab is required (Physics).

II. Nuclear Technology Component (30 credits)

The Associate in Science in Nuclear Technology, NUCP NLO Path, requires a minimum of 30 credits in technology distributed as follows:

- Electrical Theory
- Computer Applications
- Health Physics/Radiation Protection
- Nuclear Physics
- Plant Systems Overview
- Reactor Core Fundamentals
- Nuclear Materials
- Reactor Safety Design
- Power Plant Components
- Nuclear Technology Electives

Note: Beginning January 1, 2012, an associate degree capstone course will be required.

III. Information Literacy Requirement (1 credit)

Students are expected to demonstrate competency in information literacy **[INL 102 Information Literacy]**. See page 70 or visit our Web site for more information about this requirement.

CHART 2

Associate in Science in Nuclear Technology

Nuclear Uniform Curriculum Program (NUCP), NLO Path

Total Degree Credits Required: 61

AS

Arts and Sciences Component

	Credit Hours
Written English Requirement	3
Humanities (3 credits must be in a subject other than writing)	6
Social Sciences/History	6
Mathematics and Natural Sciences ■ Mathematics (at the level of College Algebra and above) ■ Natural Sciences (to include Physics I, Chemistry, Atomic Physics, Heat Transfer, Fluid Flow, one lab in Physics)	15
Total Arts and Sciences Component	**30**
Information Literacy Requirement	**1**

Technology Component

	Credit Hours
Core Requirements *	
Electrical Theory Computer Applications Health Physics/Radiation Protection Nuclear Physics Plant Systems Overview Reactor Core Fundamentals Nuclear Materials Reactor Safety Design Power Plant Components	
Nuclear Technology Electives	
Total Nuclear Technology Component	**30**

*Beginning January 1, 2012, an associate degree capstone course will be required.

Note: One physics lab is required.

Associate in Science in Technology

The Associate in Science in Technology degree is designed for adults in industry, government, and the military. Earning this degree can be a goal in itself or can serve as an intermediate step in earning a BS in Technology. Within most technology fields, individuals with AS degrees are usually employed as technicians. They support professionals and work in occupational areas including field service, design, testing, manufacturing, and quality assurance.

This degree program allows you to earn a technology degree with an area of focus in one of five technical areas. An area of focus is 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 areas of focus are:

- Computer Technologies
- Electromechanical Technologies
- Electronic/Instrumentation Technologies
- Nuclear Technologies
- Power Plant Technologies

Refer to pages 80–83 to review sample area of focus technical specialty and technical elective courses for each area.

Program Outcomes

We expect that as an Excelsior College Associate in Science in Technology graduate you will be able to:

1. Demonstrate effective oral and written communication skills
2. Apply observation and measurement skills to develop quantitative expressions of natural phenomena.
3. Apply algebra, trigonometry, and higher order mathematics to solve technology related problems.
4. Demonstrate introductory college-level knowledge in one or more of the social sciences subject areas.
5. Demonstrate a comprehension of diverse cultural heritage, interpersonal relationships, the relationship between technology and society, and personal values to make intelligent and discerning judgments.
6. Demonstrate a proficiency in computer applications used in technology areas.

Degree Requirements

61 credits

The Associate in Science in Technology degree requires a minimum of 61 credits, distributed as follows:

- 30 credits minimum in the arts and sciences
- 30 credits minimum in the technology component
- 1 credit to satisfy the information literacy requirement

I. Arts and Sciences Component (30 credits)

The Associate in Science in Technology requires a minimum of 30 credits in the arts and sciences distributed as follows:

A. **Communications:** At least 6 credits must be earned in communications, including a course (minimum of 3 credits) that satisfies the written English requirement **[ENGx111 English Composition, ENG 101 English Composition, ENG 201 Writing for the Professions]** (see page 3). Courses in speech, technical writing, or similar courses either in written or oral communications are applicable toward the communications requirement.

B. **Humanities:** At least 3 credits must be earned in humanities subjects other than writing. Humanities subjects include, but are not limited to, literature, foreign languages, religion, philosophy, art, ethics, and music.

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C. **Social Sciences/History:** At least 6 credits must be earned in social sciences/history. Social sciences/history subjects include, but are not limited to, political science, anthropology, economics, geography, history, psychology, and sociology.

D. **Natural Sciences:** At least 6 credits must be earned in natural sciences. Some sample natural science courses are biology, chemistry, astronomy, oceanography, and geology.

E. **Mathematics:** At least 6 credits must be earned in mathematics at the level of College Algebra or higher **[MAT 116 Precalculus Algebra, MAT 118 Trigonometry, TECH 201–202 Foundations of Technology Problem Solving I–II]**.

F. **Arts and Sciences Electives:** The remaining 3 credits needed to satisfy the 30-credit requirement may be earned in any area of the arts and sciences.

II. Technology Component (30 credits)

The Associate in Science in Technology requires a minimum of 30 credits in technology distributed as follows:

A. **Area of Focus:** At least 18 credits must be earned in an area of focus. See pages 80–83 for a list of sample area of focus subjects.

CHART 3

Associate in Science in Technology

Total Degree Credits Required: 61

AS

Arts and Sciences Component

	Credit Hours
Communications (must include a course that satisfies the 3-credit Written English Requirement)	6
Humanities (3 credits must be in a subject other than writing)	3
Social Sciences/History	6
Natural Sciences	6
Mathematics (at the level of College Algebra and above)	6
Arts and Sciences Electives	3
Total Arts and Sciences Component	**30**
Information Literacy Requirement	**1**

Technology Component

	Credit Hours
Areas of Focus * **At least 18 credits must be earned in a chosen area of focus.** **See pp. 80–83 for sample area of focus and technical elective subjects for each focus area.** Computer Technologies Electromechanical Technologies Electronic/Instrumentation Technologies Nuclear Technologies Power Plant Technologies	
Technical Electives including one course in computer applications or programming	12
Total Technology Component	**30**

*Beginning January 1, 2012, an associate degree capstone course will be required.

B. **Technical Electives:** A maximum of 12 credits in technical electives may be applied toward the Associate in Science in Technology. This includes at least 3 credits to satisfy the Computer Applications requirement **[IT 210 Object Oriented Programming or TECH 220 Workplace Communication with Computers]**. See pages 80–83 for a list of sample technical electives for each area of focus.

Note: Beginning January 1, 2012, an associate degree capstone course will be required.

III. Information Literacy Requirement (1 credit)

Students are expected to demonstrate competency in information literacy **[INL 102 Information Literacy]**. See page 70 or visit our Web site for more information about this requirement.

Note: **When you graduate from this degree program, your diploma will state "Associate in Science in Technology" without the area of focus. However, the area of focus (e.g., nuclear technologies) will appear on your official transcript, which would be sent to employers and other colleges.**

Degree-Specific Policies

Policies and procedures that apply specifically to the Associate in Science in Technology degree follow. Refer to your *Student Policy Handbook* for academic and administrative policies that apply to all students and programs.

Time Limit on Coursework

Because of the rapidly changing nature of technology, Excelsior College has established a time-related restriction on the application of credit from previous computer- and electronics-related coursework, with the exception of Circuit Theory I and Circuit Theory II. To meet this requirement, relevant coursework must have been completed more recently than 10 years prior to enrollment in Excelsior College. The time limit may be appealed with verification of appropriate and current professional and/or academic experience showing that electronics/computer knowledge is current.

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Associate in Science in Technology and Bachelor of Science in Technology

Students enrolled in the Associate in Science in Technology and Bachelor of Science in Technology programs have the flexibility to explore a wide range of subjects in their declared area of focus and the opportunity to branch out into different areas of technology education to round out the program.

The following charts contain typical area of focus subjects and technical elective subjects for each of the areas of focus. While these charts do not list all of the possible subjects, they provide a solid base upon which you can plan your educational goals. As always, it is best to speak with a member of your advising team before registering for courses.

Computer Technologies

A technical discipline centered around the design, assembly, testing, and maintenance of computer circuitry and peripheral hardware.

Typical Area of Focus Subjects

- AC Circuit Theory
- Applied Electronics
- DC Circuit Theory
- Digital Circuits
- Microprocessors
- Operating Systems
- Computer Architecture
- Digital Systems Design I
- Database Concepts
- Systems Analysis and Design
- Data Communications
- Data Structures
- Electronic Communications
- Computer Security
- Project Management

Typical Technical Elective Subjects

- Assembly Language Programming
- High-Level Structured Language
- Digital Systems Design II
- Advanced Digital Electronics
- Computer Graphics
- Computer Integrated Manufacturing
- Software Engineering
- Microprocessor Interfacing
- Computer-Based Robotics
- Statistical Quality Control
- Control Theory
- Blueprint Reading
- Industrial Safety
- Computer Programming
- CAD
- Engineering Graphics
- Computer Security

Sample Areas of Focus Subjects and Technical Electives

Electromechanical Technologies

A technical discipline centered around the combined efforts of the electrical engineer and mechanical engineer to design, develop, and maintain devices that combine electrical, electronic, and mechanical principles in their operations.

The number of technology credits should be evenly distributed between electronics/electricity technologies and mechanical technologies.

Typical Area of Focus Subjects

- Applied Circuit Theory
- Applied Mechanics
- Digital Circuits
- Electromechanical Devices and Mechanisms
- Electronic Devices
- Machine Components and Mechanisms
- Microprocessors
- Pneumatic and Hydraulic Systems
- Heat Transfer
- Applied Thermodynamics
- Machine Processes
- Statics
- Dynamics
- Strength of Materials
- Material Science

Typical Technical Elective Subjects

- Applied Dynamics
- Applied Electronics
- Control Systems
- Digital Signal Processing
- Electromagnetics
- Electromechanical Control Systems
- Energy Conversion
- Engineering Economics
- Industrial Electronics
- Instrumentation
- Kinematics of Mechanisms
- Machine and Power Systems
- Materials Technology
- Mechanical Design
- Power Systems Analysis
- Programmable Controllers
- Quality Control
- Robotics
- Solutions of Engineering Problems
- Thermal Technology
- Vibration Analysis
- Blueprint Reading
- Industrial Safety
- CAD
- Computer Programming
- Engineering Drawing

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Sample Areas of Focus Subjects and Technical Electives

Electronic/Instrumentation Technologies

A technical discipline centered around the design, materials development, manufacture, and maintenance of devices that adapt and use electrical energy economically.

Typical Area of Focus Subjects

- AC Circuit Theory
- Electronics
- DC Circuit Theory
- Digital Circuits
- Electronic Communications
- Electronic Devices
- Machines and Power Systems
- Microprocessors
- Control Systems
- Data Communications
- Computer Architecture

Typical Technical Elective Subjects

- Computer Network Analysis
- Electrical Instrumentation
- Electromagnetics
- Electronic Design and Fabrication
- Electronic Design Project
- Electronic Systems Design
- Energy Conversion
- High Frequency Circuit Design
- Industrial Electronics
- Optoelectronics
- Linear Amplifier Design
- Power Amplifier Design
- Power Systems Analysis
- Programmable Controllers
- Switching Circuit Design
- Blueprint Reading
- Industrial Safety
- CAD
- Computer Programming
- Engineering Graphics

Mechanical/Welding Technologies (BS only)

A technical discipline centered around the design, materials, production, and maintenance of equipment that generates, transmits, or uses power.

Typical Area of Focus Subjects

- Applied Thermodynamics
- Fluid Systems
- Manufacturing Processes
- Materials Technology I
- Mechanical Design I
- Production Control
- Statics
- Strength of Materials
- Heat Transfer
- Applied Dynamics
- Materials Technology II
- Mechanical Design
- Metallurgy

Typical Technical Elective Subjects

- Computer Aided Manufacturing
- Computer Control Systems
- Design of Machine Elements
- Energy Technology
- Engineering Economics
- Fluid Mechanics and Hydraulics
- Fluid Power Systems
- Heating and Air Conditioning Technology
- Heat Transfer
- Internal Combustion Engine Design
- Kinematics of Mechanisms
- Machine Tools
- Manufacturing Analysis
- Mechanical Design Drawing
- Mechanical Design Project
- Metrology
- Physical Measurements and Analysis
- Quality Control
- Robotics Technology
- Solar Energy
- Solutions of Engineering Problems
- Statistical Quality Control
- Thermal Technology
- Vibration Analysis
- Blueprint Reading
- Industrial Safety
- CAD
- Computer Programming
- Electrical Theory
- Electrical Drawing
- Instrumentation
- Machine Processes
- Welding

Sample Areas of Focus Subjects and Technical Electives

Nuclear Technologies

A technical discipline centered around the design, materials, and maintenance associated with radiation shielding, radiation detection instrumentation, and emergency planning for nuclear research and power generation facilities.

Typical Area of Focus Subjects

- Applied Health Physics I
- Emergency Planning
- Introduction to Reactor Systems
- Radiation Instrumentation
- Radiation Measurement
- Radiation Shielding
- Radiological Science
- Reactor Chemistry
- Dynamics
- Statics
- Materials
- Nuclear Materials
- Radiation Protection
- Electrical Theory

Typical Technical Elective Subjects

- Advanced Instrumentation
- Applied Analytical Chemistry
- Applied Health Physics II
- Applied Instrumental Analysis
- Applied Radiation Biology
- Applied Radiochemistry
- Applied Water Chemistry
- Corrosion Science
- Digital Electronics
- Health Physics Regulations
- Industrial Electronics
- Instrument Calibration
- Interaction of Radiation with Matter
- Metrology
- Quality Assurance
- Radiation Shielding II
- Reliability Analysis
- Blueprint Reading
- Industrial Safety
- Computer Programming
- Welding

Credits toward the area of focus in the Health Physics option may be earned by passing the National Registry of Radiation Protection Technologists Examination.

Power Plant Technologies

A technical discipline centered around the design and operation of conventional electric power plants.

Typical Area of Focus Subjects

- Industrial Safety
- Environmental Compliance
- Thermodynamics
- AC/DC Theory and Circuits
- Digital Electronics
- Plant Management
- Instrumentation and Control Systems
- Pneumatic and Hydraulic Systems
- Heat Transfer
- Fluids

Typical Technical Elective Subjects

- Boiler Design and Operation
- Turbine Design and Operation
- Generator Design and Operation
- Gas Turbine and Industrial Gas Turbine Design and Operation
- Combined Cycle Design and Operation
- Diesel Engine Design and Operation
- Transformer Design and Operation
- Electronics Theory and Application
- Electronic Instrumentation
- Microprocessors
- Protective Relays
- Strength of Materials
- Electrical Distribution (Plant and Switchyard)
- Materials (w/Corrosion)
- Water Chemistry
- Lubrication
- Fuel Systems
- Plant Components
- Plant Efficiency
- Predictive Maintenance
- Preventive Maintenance
- Metrology
- Welding
- Blueprint Reading
- Engineering Economics

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Bachelor's Degree Programs in Technology

For the technology student, the Excelsior College School of Business & Technology offers a number of programs at the baccalaureate degree level focused specifically on high-growth industries with exciting career opportunities. You may apply workplace and military training as credit, accelerating the path to your degree.

Excelsior College offers virtual student chapters of the Association of Computing Machinery (ACM) and Institute of Electrical and Electronic Engineers (IEEE) of the American Nuclear Society (ANS). Memberships are open to current Excelsior College students.

Visit www.excelsior.edu for more information.

Requirements and Policies for the Bachelor's Degrees in Technology

Every Excelsior College business degree program requires a specific number of semester hours of credit in each of its component areas. These areas include an arts and sciences component, a technology or career/professional component, and a free elective component in which you may earn credits through applicable coursework or examinations in subject areas of interest to you.

The chart relevant to your degree program shows a graphic representation of the credit needed to fulfill all the requirements for your chosen degree.

You are subject to the degree requirements in effect at the time of your 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 professional practice. Changes may affect both enrolled and prospective students. It is your responsibility to keep informed of such changes. We make every effort to inform you of changes as they occur. Current information about degree requirements is posted on our Web site. Information about changes to degree requirements is also made available on our Web site.

You are a good candidate for a bachelor's-level technology degree program if you:

- have a two-year technology degree or a significant number of credits in a technology discipline from a regionally accredited college.
- are prepared to complete coursework in mathematics at the level of College Algebra or above, which may include Discrete Math, Calculus I and II and/or Differential Equations, if required for your degree program.
- have completed or have access to professional courses that have been evaluated for college-level credit by either the American Council on Education (ACE) College Credit Recommendation Service of the Center for Adult Learning and Educational Credentials or the New York State Board of Regents National College Credit Recommendation Service (formerly known as National PONSI).

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- have completed military training that has been evaluated by the American Council on Education. Based on its content and your degree program, this credit may apply toward the technology component, arts and sciences component, or free elective component.

Requirements for *All* Bachelor's Degrees in Technology

Level Requirement

Excelsior College bachelor's-level technology degree programs require 15 or 16 upper-level credits within the technology or professional component, depending on the discipline selected. A course is considered upper-level if it is offered at the junior or senior level and is not introductory in content. Course credits from two-year institutions may not be used to satisfy upper-level requirements. Acceptance of course credits toward the upper-level requirement is subject to faculty approval.

Free Elective Credits

All Excelsior College technology bachelor's degree programs allow you the flexibility of using free elective credits to meet degree requirements beyond the required credits in arts and sciences and general education. Free elective credits can be earned in disciplines including, but not limited to: agriculture, architecture, business, criminal justice, education, graphic design, law, library science, medicine, and nutrition.

Bachelor of Professional Studies in Technology Management

The Bachelor of Professional Studies in Technology 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 Technology Management degree makes it an excellent educational next step for graduates of Excelsior College Associate in Applied Science programs in business and technology. As with other bachelor's programs in the School of Business and Technology, credit is awarded for Excelsior College courses and examinations, courses taken at accredited institutions other than Excelsior, approved proficiency exams, and 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 College 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.

Note: **Where an Excelsior College exam or course will satisfy a requirement, it is shown in [brackets]. Excelsior College® Examinations (ECE) have an "x" after the department, for example, [BUSx310 Ethics: Theory & Practice].**

CHART 4

Bachelor of Professional Studies in Technology Management

Total Degree Credits Required: 120

BPS

Arts and Sciences Component

(Minimum of 9 UL credits)

	Credit Hours
Written English Requirement	6
Humanities Requirement Ethics and 6 credits in Humanities Electives	9
Social Sciences/History Requirement Social Sciences/History Electives	6
Natural Sciences/Mathematics Requirement College Algebra or Statistics Mathematics Elective Natural Science Elective	3 3 3
Minimum Arts and Sciences Component	**30**

Additional Credit Component

(Minimum of 6 UL credits)

	Credit Hours
Any Collegiate-level Study May include any excess credit in Arts and Sciences, Business, or any approved free elective area	
Information Literacy	1
Total Additional Credit Component	**45**

Professional Component

(Minimum of 15 UL credits; a minimum of 9 UL credits must be in the Technology Management Core or Professional Electives)

Credit Hours

Professional Core

1. General Management
2. Leadership
3. Accounting
4. Computer Applications
5. Project Management

Technology Management Core

1. Technology and Society
2. Engineering Economics
3. Introduction to Energy Utilization
4. Integrated Technology Management Assessment **

Professional Component Electives *

(Approved technology-related courses; includes 15 credits in the area of focus*)

Minimum Professional Component Requirement	**45**

* **Areas of Focus**

Fifteen credits of Professional Component Electives must be in one of the following areas:

- Electrical Technology
- Information Technology
- Nuclear Technology

** You must complete **TECH 490: Integrated Technology Management Assessment** at Excelsior College to satisfy this requirement.

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The outcomes and specific degree requirements for the Bachelor of Professional Studies in Technology Management are as follows.

Program Outcomes

Graduates of the Bachelor of Professional Studies in Technology Management will be expected to:

1. Use commonly-available workplace technology tools to communicate professional information in clear, grammatical and effective written prose.
2. Develop and communicate cohesive arguments using appropriate supporting evidence and effective prose.
3. Interpret events using more than one perspective, with an understanding of the significance of integrating knowledge and skills in the workplace.
4. Identify, critically evaluate, and propose solutions for technology management problems.
5. Apply knowledge of mathematics and natural sciences to problem-solving in technology management contexts.
6. Demonstrate an awareness of the ethical implications of actions.
7. Demonstrate information literacy.
8. Participate effectively in groups.
9. Apply project management techniques where appropriate.
10. Demonstrate a fundamental knowledge of the natural sciences, particularly as applied to the area of focus.
11. Demonstrate a working knowledge of computer usage applicable to problem solving in technology areas.
12. Demonstrate competency in the analysis, interpretation and application of data in the chosen technical area.
13. Apply technological and management concepts in an integrated manner.

Degree Requirements

120 credits

The Excelsior College Bachelor of Professional Studies in Technology Management degree program requires a total of 120 credits and is comprised of 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 information literacy)

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

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

Written English Requirement

At least 6 credits must come from a course that satisfies the written English requirement (see page 69). **[ENGx111 English Composition, ENG 101 English Composition, ENG 201 Writing for the Professions]**

Humanities

You must successfully complete at least 9 credits in the humanities, including ethics **[BUS 323 Business Ethics, BUSx310 Ethics: Theory and Practice]** 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.

Social Sciences/History

You must successfully complete a minimum of 6 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.

Natural Sciences/Mathematics

You must successfully complete a minimum of 6 credits in mathematics to include a 3-credit course in either College Algebra [MAT 116 Precalculus Algebra] or Statistics [BUS 233 Business Statistics]. 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/mathematics subjects include, but are not limited to, anatomy and physiology, microbiology, chemistry, biology, genetics, zoology, physics, precalculus, calculus, astronomy, geology, oceanography, etc.

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

II. 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 three areas of focus—electrical technology, information technology, and nuclear technology. A minimum of 15 credits is required in the area of focus.

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 College courses and examinations and other approved sources, as well as approved military, business, and industry training.

Professional Core Requirements

One three-credit course required in each professional core area below.

General Management
[BUS 240 Principles of Management]

Leadership [BUS 452 Business Leadership]

Accounting [ACC 211 Financial Accounting, ACC 212 Managerial Accounting]

Computer Applications [BUS 220 Workplace Communication with Computers]

Project Management [IT 390 Project Management]

Technology Management Core Requirements

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

Technology and Society
[TECH 230 Technology and Society]

Engineering Economics
[TECH 330 Engineering Economics

Introduction to Energy Utilization
[TECH 340 Intro to Energy Utilization]

Technology Management Capstone [TECH 490 Integrated Technology Management Assessment—this course must be completed at Excelsior College]

Professional Component Electives

Any technology related credits outside the core are applied as professional component electives. Students must select an area of focus in one of three areas: electrical technology, information technology, and nuclear technology. A minimum of 15 credits must be earned in the area of focus.

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

III. 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 degree. To do this, you may apply any

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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, criminal justice. A maximum of two 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 70 or visit our Web site for more information about this requirement. The information literacy requirement is applied to the additional credit component.

Bachelor of Science in Technology

The Bachelor of Science in Technology degree program is designed to provide thorough preparation for a first professional degree for technology occupations in industry, government, and the military. It is intended to advance job skills by ensuring a breadth of exposure to technology concepts as well as development of a depth of understanding and skill in one of the chosen areas of focus.

This degree program allows you to earn a technology degree with an area of focus from one of six technical areas. An area of focus is 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 areas of focus are:

- Computer Technologies
- Electromechanical Technologies
- Electronic/Instrumentation Technologies
- Mechanical/Welding Technologies
- Nuclear Technologies
- Power Plant Technologies

Program Outcomes

We expect that as an Excelsior College baccalaureate-level technology graduate you will be able to:

1. Demonstrate the ability to understand and use quantitative expressions in the natural sciences.
2. Demonstrate the application of algebra and higher mathematics to problem solving in technology areas.
3. Demonstrate proficiency in oral and written communications.
4. Demonstrate an ability to understand professional, ethical, and social responsibilities, including the impacts of culture, diversity, and interpersonal relations.
5. Demonstrate computer usage in the area of focus including technical problem solving.
6. Demonstrate the ability to identify, analyze, and solve problems in the area of focus.

Degree Requirements

120 credits The Bachelor of Science in Technology degree requires a minimum of 120 credits distributed as follows:

- 60 credits minimum required in the arts and sciences component
- 48 credits minimum required in the technology component
- 12 credits required in the free elective component (to include information literacy)

I. Arts and Sciences Component (60 credits)

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

A. Humanities and Social Science/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, including 6 credits to satisfy the written English

requirement **[ENGx111 English Composition, ENG 101 English Composition, ENG 201 Writing for the Professions]** (see page 69). Courses in speech, technical writing, or a similar course either in written or oral communications are applicable toward the communications requirement.

2. **Humanities:** At least 6 credits must be earned in humanities, including a course in ethics **[BUS 323 Business Ethics].** Humanities subjects include, but are not limited to, advanced writing, literature, foreign languages, religion, philosophy, art, and music.

3. **Social Sciences/history:** At least 9 credits must be earned in social sciences/history. Social sciences/history subjects include, but are not limited to, political science, anthropology, economics, geography, history, psychology, and sociology.

B. **Natural Sciences:** At least 9 credits must be earned in natural sciences. Some sample natural science courses are biology, chemistry, astronomy, oceanography, and geology.

C. **Mathematics:** At least 12 credits must be earned in mathematics at the level of College Algebra and above **[MAT 116 Precalculus Algebra, MAT 118 Trigonometry, TECH 201-202 Foundations of Technology Problem Solving I-II].**

D. **Arts and Sciences Electives:** The remaining 15 credits needed to satisfy the 60-credit requirement may be earned in any area of the arts and sciences.

II. Technology Component (48 credits)

The Bachelor of Science in Technology requires a minimum of 48 credits in technology distributed as follows:

A. **Area of Focus:** At least 24 credits, including 9 upper-level credits, must be earned in a chosen area of focus. See pages 80–83 for a list of sample focus area subjects. (The Integrated Technology Assessment is part of the area of focus.)

B. **Technical Electives:** A maximum of 24 credits in technical electives may be applied toward the Bachelor of Science in Technology. This includes 3 credits in computer applications **[TECH 220 Workplace Communication with Computers]**. See pages 80–83 for a list of sample technical electives for each concentration.

Note: Refer to pages 80–83 to review sample area of focus and technical elective courses for each area.

C. **Level Requirement:** Of the 48 credits required for the technology component, at least 15 credits must be upper level (9 upper-level credits in the area of focus and 6 upper-level credits in technical electives). 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.

III. Free Elective Component (12 credits)

The Bachelor of Science in Technology allows room for up to 12 credits in free electives. Applied to this component is the one credit for Excelsior College's information literacy requirement **[INL 102 Information Literacy].** See page 70 or visit our Web site for more information about information literacy.

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Degree-Specific Policy

Time Limit on Coursework

Because of the rapidly changing nature of technology, Excelsior College has established a time-related restriction on the application of credit from previous computer- and electronics-related coursework. To meet this requirement, relevant coursework must have been completed more recently than 10 years prior to enrollment in Excelsior College, with the exception of Circuit Theory I and Circuit Theory II. The time limit may be appealed with verification of appropriate and current professional and/or academic experience.

CHART 5

Bachelor Science in Technology

Total Degree Credits Required: 120

BS

Arts and Sciences Component

	Credit Hours
Communications (must include 6-credit Written English Requirement)	9
Humanities Requirement (must include 3 credits in Ethics)	6
Social Sciences/History	9
Natural Sciences	9
Mathematics (at the level of College Algebra and above)	12
Arts and Sciences Electives	15
Total Arts and Sciences Component	**60**

Free Elective Component

	Credit Hours
Free Elective Component (must include 1-credit Information Literacy Requirement)	**12**

Technology Component

Area of Focus

24 credits must be earned in one of the following areas of focus. This includes TECH 495: Integrated Technology Assessment, which you must complete at Excelsior College.

See pages 80–83 for sample area of focus and technical elective subjects for each focus area.

Computer Technologies
Electromechanical Technologies
Electronic/Instrumentation Technologies
Mechanical/Welding Technologies
Nuclear Technologies
Power Plant Technologies

Technical Electives (must include one course in computer language or programming)	24
Total Technology Component 15 credits must be upper level, including 9 in the area of focus	**48**

Bachelor of Science in Electrical Engineering Technology

An individual who has a Bachelor of Science in Electrical Engineering Technology degree is typically employed as an electrical technologist. The duties of a technologist are broad and varied, encompassing technical aspects as well as the application of engineering principles. Typical occupational areas where electrical technologists are employed include product design and development, manufacturing, field engineering, systems supervision, and quality assurance.

The Bachelor of Science in Electrical Engineering Technology is accredited by the Technology Accreditation Commission of ABET, http://www.abet.org, telephone: 410-347-7700. ABET is a specialized accrediting agency recognized by the Council for Higher Education Accreditation (CHEA).

Program Educational Objectives

We expect that as an Excelsior College bachelor's-level electrical engineering technology graduate you will be able 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 a professional/industrial environment.
5. Perform ethically and professionally in business, industry, and society.
6. Attain increasing levels of responsibility and leadership in the electrical field.

Program Outcomes

Graduates will be able to:

1. Demonstrate a fundamental knowledge of natural sciences, including physics.
2. Demonstrate the ability to measure and provide quantitative expressions of natural science phenomena, including experimentation, observation, and accurate measurement.
3. Apply the fundamentals of algebra, trigonometry, and calculus to problem solving in electrical engineering technology areas.
4. Make oral technical presentations in English using language appropriate to the audience.
5. Demonstrate proficiency in the written communication of technical information using English.
6. Demonstrate a working knowledge of computer usage, including knowledge of one or more computer languages and documentation of the use of one or more computer software packages for technical problem solving appropriate to the electrical engineering technology discipline.
7. Demonstrate technical competency in electronics, circuit analysis, digital electronics, electronic communications, microprocessors, and systems.
8. Integrate knowledge of the functional areas of electrical engineering technology.
9. Demonstrate the ability to analyze, apply design concepts, and implement systems as appropriate to electrical engineering technology.
10. Participate effectively in groups, and apply project management techniques as appropriate to complete assignments.
11. Demonstrate an ability to understand professional, ethical, and social responsibilities, including the impacts of culture, diversity, and interpersonal relations.
12. Demonstrate a commitment and ability to continue to engage in lifelong learning.
13. Demonstrate a commitment to quality, timeliness, and continuous improvement.

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Degree Requirements

124 credits The Bachelor of Science in Electrical Engineering Technology degree 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 information literacy)

I. 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 **[ENGx111 English Composition, ENG 101 English Composition, ENG 201 Writing for the Professions]**. 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 **[BUS 323 Business Ethics]**.
3. **Social Sciences/History:** At least 9 credits must be earned in subjects such as sociology, economics, history, psychology, and anthropology.
4. **Humanities Electives:** At least 3 credits must be earned in a humanities elective.

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, **[TECH 201 Foundations of Technology Problem Solving I]**, Calculus II, **[TECH 202 Foundations of Technology Problem Solving 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 and II (with at least one physics lab) **[PHYS 201 Physics I, PHYS 203 Physics II, PHYS 202 Physics I Laboratory, PHYS 204 Physics II Laboratory]**.

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.

II. 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. **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]**

CHART 6

Bachelor of Science in Electrical Engineering Technology

Total Degree Credits Required: 124

BS

Arts and Sciences Component

	Credit Hours
Communications (must include 6 credits in the written English requirement)	9
Ethics	3
Social Sciences/History	9
Humanities Elective	3
Mathematics and Natural Sciences ■ Mathematics (12 credits at the level of College Algebra and above including Calculus I and II and Differential Equations) ■ Natural Sciences (Physics I and II with at least one physics lab)	24
Arts and Sciences Electives	12
Total Arts and Sciences Component	**60**

Electrical Engineering Technology Component

	Credit Hours
Core Requirements	
DC Circuits AC Circuits Electronics I Electronics II Digital Electronics Microprocessors Computer Programming Project Management Integrated Technology Assessment	
Concentration Requirements	
One of the following concentrations must be declared (see page 96 for concentration requirements): Electronics Nanotechnology Power Systems	
Electrical Technology Electives	
Total Technology Component **16 credits must be upper level including 9 in the concentration**	**57**

Free Elective Component

	Credit Hours
Free Elective Component **(must include 1-credit Information Literacy Requirement)**	**7**

Seven technology labs are required.

Four must be from the following:

- DC Circuits
- AC Circuits
- Electronics I
- Electronics II
- Microprocessors

The other three must be in the concentration area.

At least two of the labs must be physical (non-virtual).

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- Computer Programming *(The computer programming core requirement may be satisfied with credits from coursework in any of the languages listed for the information technology degree, except COBOL.)* **[IT 210 Object Oriented Programming]**
- Project Management **[IT 390 Project Management]**
- Integrated Technology Assessment Capstone

  Note: To satisfy this requirement you must take the Excelsior College course, **[ELEC 495 Integrated Technology Assessment].**

  Four labs from the following core courses must be completed:

  DC Circuits, AC Circuits, Electronics I, Electronics II, Microprocessors.

B. Concentration Requirements: One of the following concentrations must be declared:

- Electronics
- Nanotechnology
- Power Systems

Electronics Concentration
(Minimum of **15** *credits, including* **9** *upper level. At least three courses must have labs.)*

Concentration requirements:

- Electronic Communications **[ELEC 330 Electronic Communications]**
- Advanced Digital Electronics **[ELEC 303 Advanced Digital Electronics]**
- Data Communications **[IT 350 Business Data Communications]**
- Control Systems **[ELEC 321 Control Systems]**
- Microprocessors II **[ELEC 304 Microprocessors II]**

Nanotechnology Concentration
(Minimum of **15** *credits, including* **9** *upper level. At least three courses must have labs.)*

Concentration requirements:

- Introduction to Nanotechnology **[ELEC 305 Introduction to Nanotechnology]**
- Basic Nanofabrication Process **[ELEC 310 Basic Nanofabrication Process]**
- Nanotechnology Process Equipment **[ELEC 410 Nanotechnology Process Equipment]**
- Introduction to Nanofabrication Manufacturing Technology **[ELEC 415 Introduction to Nanofabrication Manufacturing Technology]**
- Micro-electro-mechanical Systems (MEMS) **[ELEC 420 Micro-Electro Mechanical Systems]**

Power Systems Concentration
(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]***

C. Electrical Engineering Technology Electives: Any remaining credits in the electrical engineering technology component may be satisfied by approved electrical technology electives. Please check with your advisor for approval prior to registering for electrical engineering technology electives.

D. 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,

* Course is under development and will be offered sometime during the 2012–2013 academic year.

AC Circuits, Electronics I, Electronics II, and Microprocessors. The remaining three laboratories must be in your area of concentration.

At least two of the seven electrical labs must be physical (non-virtual) laboratory experiences, or the student must be able to otherwise demonstrate competence in the use of analytical and measurement equipment common to the electrical discipline and in accordance with the EET Program goals.

Additionally, 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 EET program goals.

E. **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.

III. 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 one credit for Excelsior College's information literacy requirement **[INL 102 Information Literacy]**. See page 70 or refer to our Web site 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 two 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 degree follow. Refer to your *Student Policy Handbook* for academic and administrative policies that apply to all students and programs.

Course Materials Policy

The faculty requires that students submit course materials for all math, science, and technology component courses taken outside of Excelsior College. 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 Status Report.

Time Limit on Coursework

Because of the rapidly changing nature of technology, Excelsior College has established a time-related restriction on the application of credit from previous computer- and electrical/electronics-related coursework. To meet this requirement, relevant coursework must have been completed more recently than 10 years prior to enrollment in Excelsior College (except AC Circuits and DC 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.

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Bachelor of Science in Information Technology

The Bachelor of Science in Information Technology degree program is designed to enhance job skills and improve opportunities for career advancement in the information technology field.

Typical occupational areas associated with information technology include database management systems, software management, data communications, information security and network management.

Flexibility in program design is possible by virtue of your choice of IT electives.

Program Educational Objectives

As an Excelsior College baccalaureate-level Information Technology graduate you will be able 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. Attain increasing levels of responsibility and leadership in the information technology field.

Program Outcomes

Graduates will be able to:

1. Apply knowledge of computing and mathematics for problem solving in the field of information technology.
2. Demonstrate the ability to identify and analyze user needs to define and create appropriate computing requirements and solutions.
3. Demonstrate the ability to effectively select, evaluate, and integrate information technologies based solutions in a user environment.
4. Demonstrate the ability to participate effectively in groups or team projects.
5. Demonstrate an ability to understand professional, ethical and social responsibilities, including the impacts of culture, diversity, and interpersonal relations.
6. Demonstrate proficiency in communicating technical information in formal reports, documentation, and presentations to users and information technology professionals.
7. Demonstrate the ability to identify and analyze the impacts of information technologies and computing on public, organizations, and individuals.
8. Demonstrate the ability to identify and apply current and emerging technologies and tools for information technologies solutions.

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9. Demonstrate expertise in the core information technologies including data base management, information management and security, object oriented programming, computer architecture, systems architecture, operating systems, and networking.
10. Demonstrate the ability to analyze computing and information security requirements and risks, and apply the appropriate tools and techniques to protect organizational data assets in an ethically responsible manner.
11. Demonstrate the ability to apply best practices and standards for information technology applications.
12. Demonstrate the ability to assist in the creation and execution of an effective project plan.
13. Demonstrate a commitment to professional development and to continue to engage in lifelong learning.

Degree Requirements

120 credits 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 information literacy)

I. 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. **Written English:** At least 6 credits are required to satisfy the written English requirement. **[ENGx111 English Composition, ENG 101 English Composition, ENG 201 Writing for the Professions]**

B. **Humanities:** At least 9 credits must be earned in humanities to include a course in Ethics **[BUS 323 Business Ethics].** Humanities subjects include, but are not limited to advanced writing, literature, foreign languages, religion, philosophy, art, and music.

C. **Social Sciences/History:** At least 9 credits must be earned in social sciences/history. Social sciences/history subjects include, but are not limited to political science, anthropology, psychology, sociology, economics, geography, and history.

D. **Natural Sciences/Mathematics:** At least 12 credits must be earned in natural sciences/mathematics and include 3 credits in a natural science, a course in discrete mathematics **[TECH 205 Discrete Structures]** and one course from the following list:

- Calculus I **[TECH 201 Foundations of Technology Problem Solving I]**
- Statistics and Probability **[BUS 233 Business Statistics, MAT 201 Statistics]**
- Quantitative Methods **[BUS 430 Quantitative Methods]**
- Finite Math
- Mathematical Logic

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

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

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CHART 7

Bachelor Science in Information Technology

Total Degree Credits Required: 120

BS

Arts and Sciences Component

	Credit Hours
Written English Requirement	6
Ethics	3
Humanities	6
Social Sciences/History	9
Natural Sciences/Mathematics (must include 3 credits in a natural science, Discrete Math, and one course from the following: Calculus I, Statistics and Probability, Quantitative Methods, Finite Math, or Mathematical Logic)	12
Arts and Sciences Electives	24
Total Arts and Sciences Component	**60**

Free Elective Component

	Credit Hours
Free Elective Component (must include 1-credit Information Literacy Requirement)	**12**

Information Technology Component

Core Requirements

Computer Systems Architecture
Database Concepts
Data Communications and Networking
Integrated Technology Assessment*
Object-Oriented Programming
Operating Systems
Overview of Computer Security
Project Management
Software Systems Analysis and Design

Concentration Requirements

One of the following concentrations must be declared (see pages 101 and 102 for concentration requirements):

Cybersecurity Technology
General Option
Information Security
Network Management

***Each concentration requires the completion of IT 495: Integrated Technology Assessment**

Total Technology Component 15 credits must be upper level	**48**

II. Information Technology Component (48 Credits)

The Bachelor of Science in Information Technology requires a minimum of 48 credits in the area of information technology distributed as follows:

A. **Core Requirements:** The following core requirements must be met:

- Computer Systems Architecture **[IT 320 Computer Systems Architecture]**
- Object-Oriented Programming **[IT 210 Object Oriented Programming]**
- Database Concepts **[IT 370 Database Management Systems]**
- Data Communications and Networking **[IT 350 Business Data Communications]**
- Operating Systems **[IT 360 Operating Systems]**
- Overview of Computer Security **[IT 380 Overview of Computer Security]**
- Project Management **[IT 390 Project Management]**
- Software Systems Analysis and Design **[IT 418 Software Systems Analysis and Design]**
- Integrated Technology Assessment **[IT 495 Integrated Technology Assessment]**

B. **Concentration Requirements:** 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
- Information Security
- Network Management

Cybersecurity Technology Concentration Requirements

(Minimum of **15** *credits)*

- Computer Forensics **[CYS 406 Computer Forensics]**
- Cyber Attacks and Defenses **[CYS 436 Cyber Attacks and Defenses]**
- Business Continuity **[CYS 455 Business Security and Continuity]**
- Securing Mobile and Cloud Computing Environments **[CYS 456 Securing Mobile and Cloud Computing Environments]**
- Large Scale Cybercrime and Terrorism **[CYS 475 Large Scale Cybercrime and Terrorism]**

General Option Concentration Requirements

- Approved IT Electives

Information Security Concentration Requirements

(Minimum of **15** *credits)*

- Network Security **[IT 402 Network Security]**
- Web Security **[IT 404 Web Security]**
- Computer Forensics **[IT 406 Computer Forensics]**
- Information Assurance Management **[IT 408 Information Assurance Management]**
- Fundamentals of Cryptography **[IT 410 Fundamentals of Cryptography]**

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Network Management 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]

C. **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.

III. 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 one credit for Excelsior College's information literacy requirement **[INL 102 Information Literacy]**. See page 70 or visit our Web site 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 two 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 degree follow. Refer to your *Student Policy Handbook* for academic and administrative policies that apply to all students and programs.

Programming Language Cap

The College has placed a 9-credit cap on introductory programming language courses in the information technology component, which includes the following languages.

JAVA	C
PYTHON	C++
Visual Basic	C#

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

Credit for Vendor Examinations

Excelsior College awards credit for certain examinations from vendors such as Microsoft, CompTIA, Novell, Cisco, Sun, ORACLE, SAS and ICCP. You may apply up to 9 credits from vendor certification examinations toward the IT component of your degree; additional credits from such examinations may apply toward the free elective component. Please contact a technology advisor about the possibility of getting college-level credit toward your degree requirements.

Time Limit on Coursework

Because of the rapidly changing nature of technology, Excelsior College has established a time-related restriction on the application of credit from previous computer- and electronics-related coursework. To meet this requirement, relevant coursework must have been completed more recently than 10 years prior to enrollment in Excelsior College. This may not be appealed. The Bachelor of Science in Technology with a Computer Technologies specialty has a time limit that may be appealed.

Course Materials Policy

The faculty requires that students submit course materials for all math and technology component courses taken outside of Excelsior College. 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 Status Report.

Bachelor of Science in Nuclear Engineering Technology

The Bachelor of Science in Nuclear Engineering Technology degree is designed primarily for employees of the nuclear industry and the military. This program emphasizes practical applications of engineering principles as they relate to the nuclear industry. It is intended to equip people to perform competently in occupational areas such as reactor operations, health physics, quality assurance, chemical technology, and instrumentation and control technology as well as related areas in the nuclear technology field. You can develop an individualized program to meet your needs as a professional within the nuclear technology field.

The bachelor's degree program in nuclear engineering technology is accredited by the Technology Accreditation Commission of ABET, http://www.abet.org, telephone: 410-347-7700. ABET is a specialized accrediting agency recognized by the Council for Higher Education Accreditation (CHEA).

Program Educational Objectives

As an Excelsior College baccalaureate-level nuclear engineering technology graduate, you will be able to:

1. Apply general and discipline-specific concepts and methodologies to identify, analyze, and solve technical problems in the nuclear discipline.
2. Demonstrate an individual desire and commitment to remain technically current with, and adaptive to, hanging 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 nuclear field.

Program Outcomes

Graduates will be able to:

1. Demonstrate a fundamental knowledge of natural sciences, including physics, chemistry, thermodynamics, atomic physics, and nuclear physics.
2. Demonstrate the ability to understand, measure, and provide quantitative expressions of natural science phenomena, including experimentation, observation, and accurate measurement.
3. Apply the fundamentals of algebra, trigonometry, and calculus to problem solving in nuclear engineering technology areas.
4. Make technical presentations in English using language appropriate to the audience.
5. Demonstrate proficiency in the written communication of technical information using standard English.

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CHART 8

Bachelor Science in Nuclear Engineering Technology

Total Degree Credits Required: 124

BS

Arts and Sciences Component

	Credit Hours
Communications (must include 2 courses to satisfy the Written English Requirement)	9
Ethics	3
Social Sciences/History	9
Humanities Elective	3
Mathematics and Natural Sciences ■ Mathematics (at least 12 credits at the level of College Algebra and above to include Calculus I and II) ■ Natural Sciences (must include Chemistry with lab, Physics I and II with at least one physics lab, Atomic Physics, Nuclear Physics, and Thermodynamics)	26
Arts and Sciences Electives	10
Total Arts and Sciences Component	**60**

Nuclear Engineering Technology Component

	Credit Hours
Computer Applications Materials Nuclear Materials Health Physics/Radiation Protection Radiation Measurement Lab Plant Systems Overview Reactor Core Fundamentals Fluids Heat Transfer Integrated Technology Assessment	
Nuclear Engineering Technology Electives	
Total Technology Component 16 credits must be upper level	**48**

Note: Five labs are required

- chemistry
- physics
- radiation measurement lab
- two technology or natural science labs

Free Elective Component

	Credit Hours
Free Elective Component (must include 1-credit Information Literacy Requirement)	**16**

6. Demonstrate a working knowledge of computer applications for technical problem solving appropriate to the nuclear engineering technology discipline.
7. Demonstrate technical competency in electrical theory, nuclear and engineering materials, health physics/radiation protection, reactor core fundamentals, plant systems, heat transfer, fluids, and radiation measurement lab.
8. Demonstrate comprehension of currently applicable rules and regulations in the areas of:
   - radiation protection
   - operations
   - maintenance
   - quality control
   - quality assurance
   - safety

   Demonstrate a commitment to:
   - quality
   - timeliness
   - continuous improvement
9. Integrate knowledge of the functional areas of nuclear engineering technology in the safe operation and maintenance of nuclear systems.
10. Demonstrate the ability to apply design concepts, creativity, balance, accuracy, and confidence limits through the understanding of the relationships between design and the operation of nuclear systems.
11. Participate effectively in groups.
12. Demonstrate an ability to understand professional, ethical, and social responsibilities, including the impacts of culture, diversity, and interpersonal relations.
13. Demonstrate a commitment and ability to continue to engage in lifelong learning.

Degree Requirements

124 credits

The Bachelor of Science in Nuclear Engineering Technology requires 120 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 free elective component (to include information literacy)

I. Arts and Sciences Component (60 Credits)

This 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:** 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 **[ENGx111 English Composition, ENG 101 English Composition, ENG 201 Writing for the Professions]**. 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 **[BUS 323 Business Ethics]**
   3. **Social Sciences/History:** At least 9 credits must be earned in such subjects as sociology, economics, history, psychology, and anthropology.

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4. **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.

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, including Calculus I and II **[TECH 201–202 Foundations of Technology Problem Solving I and II]**.

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

- Chemistry (with lab) **[CHE 101L General Chemistry Laboratory I]**

  Note: CHE 101L satisfies the chemistry lab requirement only.

- Physics I and II (with at least one physics lab) **[PHYS 201–203 Physics I and II, PHYS 202–204 Physics Laboratory I and II]**
- Atomic Physics **[NUC 240 Atomic and Nuclear Physics]**

  Note: **NUC 240 also satisfies the nuclear physics core requirement.**

- Nuclear Physics **[NUC 240 Atomic and Nuclear Physics]**

  Note: **NUC 240** also satisfies the atomic physics core requirement.

- Thermodynamics **[NUC 245 Thermodynamics]**

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.

II. Nuclear Engineering Technology Component (48 credits)

A. **Core Requirement:** The nuclear engineering technology component ensures basic college-level competence in the major functional areas of nuclear engineering technology.

The following core requirements must be completed:

- Electrical Theory **[ELEC 152–153 Circuit Theory I and II]**

  Note: Both courses must be completed.

  OR

  [NUC 255 AC/DC Electrical Theory]

- Computer Applications **[TECH 220 Workplace Communication with Computers]**
- Materials **[NUC 320 Materials]**
- Nuclear Materials **[NUC 325 Nuclear Materials]**
- Health Physics/Radiation Protection
- Radiation Measurement Lab
- Plant Systems Overview **[NUC 350 Plant Systems Overview]**
- Reactor Core Fundamentals **[NUC 330 Reactor Core Fundamentals]**
- Fluids
- Heat Transfer
- Integrated Technology Assessment **(NUC 495 Integrated Technology Assessment)**

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:** Your bachelor's degree program must include a minimum of five laboratories. Three of these must be in physics, chemistry, and radiation measurement. The remaining two may be in the natural sciences or in nuclear engineering technology subjects.

D. **Level Requirement:** Of the 48 credits required for the nuclear engineering technology component, at least 16 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. Upper-level credit is not given for Navy Enlisted Ratings or military service school courses with the exception of those offered by the Navy Nuclear Power School. The acceptance of courses toward the upper-level requirement is subject to faculty review.

III. Free Elective Component (16 credits)

The nuclear engineering technology degree program is designed to allow room for up to 16 credits from free electives. Applied to this component is the one credit for our information literacy requirement [INL 102 Information Literacy]. See page 70 or visit our Web site for more information about information literacy.

You may earn the remaining 15 credits in any field of college study, including professional or technical subjects and the arts and sciences. You may apply a maximum of two credits in physical education activity courses to the degree.

Degree-Specific Policies

Policies and procedures that apply specifically to the Bachelor of Science in Nuclear Engineering Technology degree follow. Refer to your *Student Policy Handbook* for academic and administrative policies that apply to all students and programs.

Course Materials Policy

The faculty requires that students submit course materials for all math, science, and technology component courses completed outside of Excelsior College. 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 Status Report.

Time Limit on Coursework

Because of the rapidly changing nature of technology, Excelsior College has established a time-related restriction on the application of credit from previous computer- and electronics-related coursework, with the exception of Circuit Theory I and Circuit Theory II. To meet this requirement, relevant coursework must have been completed more recently than 10 years prior to enrollment in Excelsior College. To

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apply course credit from the nuclear materials area, you must have completed relevant coursework more recently than January 1970.

Credit for the National Registry of Radiation Protection Technologists (NRRPT)*

The American Council on Education (ACE) College Credit Recommendation Service recommends the awarding of a total of 30 college credits for members accepted to the National Registry of Radiation Protection Technologists (NRRPT) from November 1978 to the present. Excelsior College recognizes the credit recommendations of the ACE College Credit Recommendation Service.

The Excelsior College faculty has reviewed the ACE credit recommendation toward the nuclear engineering technology requirement and will award 8 of the 30 credits toward the upper level in health physics/radiation protection. The remaining 22 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*

The Excelsior College Technology Faculty evaluated several of the standardized training programs at nuclear power facilities that are accredited by NANT. The ten 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

Students may earn between 24 and 52 credits, depending on the utility training program completed. Contact a technology academic advisor for details.

** For more information about this source of credit, please contact the School of Business and Technology.*

Master of Science in Cybersecurity

The Master of Science in Cybersecurity provides professionals with cutting edge knowledge and techniques to protect sensitive/critical information of an organization. The curriculum focuses on aspects of cybersecurity including strategies, policy, ethics and legal compliance, operational process, and technologies that secure and defend an organization's cyber assets. This program is especially suited for professionals who aim to pursue their career goal to work in the critically important area of cybersecurity.

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Master of Science in Cybersecurity

The Master of Science in Cybersecurity provides professionals with cutting edge knowledge and techniques to protect sensitive/critical information of an organization. The curriculum focuses on aspects of cybersecurity including strategies, policy, ethics and legal compliance, operational process, and technologies that secure and defend an organization's cyber assets. This program is especially suited for professionals who aim to pursue their career goal to work in the critically important area of cybersecurity.

Important Note: You are subject to the degree requirements in effect at the time of your 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 enrolled and prospective students. It is your responsibility to keep informed of such changes. We make every effort to inform you of changes as they occur. Current information about degree requirements is posted on our Web site. Information about changes to degree requirements is also made available on our Web site.

Program Outcomes

The student who graduates with a Master of Science degree in Cybersecurity 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. Implement an Incident Response team that legally, ethically, and efficiently respond to cyber incidents.
3. Detect, analyze and respond to cyber attacks on networks and computer systems.
4. Conduct risk and vulnerability assessments of existing and proposed information systems.
5. Develop and implement organizational cybersecurity policies and procedures
6. Utilize the best sources of information available related to cyber security issues, threats, and recovery.

Note: Where an Excelsior College® Examination or course will satisfy a requirement, it is shown in [brackets]. Excelsior College Examinations have an "x" after the department e.g., **[BUSx310 Ethics: Theory & Practice]**.

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www.excelsior.edu/MyExcelsior, click on Communities tab

Degree Requirements

30 credits

The Master of Science in Cybersecurity degree program requires a minimum of 30 graduate-level credits, with nine required courses. Students in this program are allowed to transfer in a maximum of 9 approved, graduate-level credits, thus, requiring a minimum of 21 credits to be taken directly at Excelsior College.

Required Subjects

Digital Crime Prevention and Investigation (4 credits) [CYS 585 Digital Crime Prevention and Investigation]

Communication Security (4 credits) [CYS 501 Communications Security]

Ethics, Legal, and Compliance Issues in Cybersecurity (3 credits) [BUS/CYS 541 Ethics, Legal, and Compliance Issues in Cybersecurity]

Information Technology (3 credits) [BUS 570 Information Technology]

IT Risk Analysis and Management (3 credits) [BUS/CYS 575 IT Risk Analysis and Management]

Cyber Attacks and Defenses (3 credits) [CYS 536 Cyber Attacks and Defenses]

Advanced Networking (3 credits) [CYS 522 Advanced Networking]

Project Management (3 credits) [BUS 530 Project Management]

Capstone Project in Cybersecurity (4 credits) [CYS 595 Capstone Project in Cybersecurity]

Note: Students might need to take additional course(s) if they do not have the appropriate prerequisites to complete the program.

CHART 11

Master of Science in Cybersecurity

Total Degree Credits Required: 30

MS

Required Subjects

	Credit Hours
Digital Crime Prevention and Investigation	4
Communication Security	4
Ethics, Legal, and Compliance Issues in Cybersecurity	3
Information Technology	3
IT Risk Analysis and Management	3
Cyber Attacks and Defenses	3
Advanced Networking	3
Project Management	3
Capstone Project in Cybersecurity	4

Total Credits **30**

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Certificate Programs in Technology

Certificate programs provide the opportunity to gain expertise in a particular field of study by concentrating on core elements within an accelerated framework. The career benefits from obtaining a certificate include, but are not limited to, promotion, salary increases, employee recognition, or simply personal achievement.

Our certificate programs can be completed in a relatively short period of time, therefore, for some, this approach may prove more practical and time efficient than a full degree program. Certificate programs are also a great way to help determine whether going back to school is right for you, because you are not committing to an entire degree program.

Credits earned for the undergraduate Cybersecurity Certificate may transfer into the Bachelor of Science in Business or Information Technology programs from the School of Business & Technology, or the Bachelor of Science in Liberal Arts with a major in Criminal Justice from the School of Liberal Arts.

Credits earned for the graduate Cybersecurity Management Certificate may transfer into the MBA or Master of Science in Cybersecurity from the School of Business & Technology, or the Master of Science in Criminal Justice from the School of Liberal Arts.

Contact your academic advisor for more information.

Undergraduate Certificate in Cybersecurity

The undergraduate certificate in Cybersecurity is cross-listed between the School of Business & Technology and the School of Liberal Arts. This 16-credit undergraduate certificate comprises introductory courses in cybersecurity technology and fundamental knowledge in cybercrime investigation.

All students will be required to complete the capstone course, CYS 460, at Excelsior College. Approved courses from other institutions may be accepted in transfer for the remaining requirements.

Course Requirements

CYS 245 Introduction to Cybersecurity	**(1 credit)**
CYS 300 Computer System Security Fundamentals	**(3 credits)**
CYS 345 Cybersecurity Defense in Depth	**(3 credits)**
CYS/CJ 475 Large Scale Cybercrime and Terrorism	**(3 credits)**
CYS/CJ 387 White Collar Crime	**(3 credits)**
CYS 460 Cybersecurity Investigations and Case Studies	**(3 credits)**
Total	**16 credits**

Graduate Certificate in Cybersecurity Management

The 16-credit graduate certificate in Cybersecurity Management is a graduate-level certificate comprised of five graduate-level courses. This certificate will serve as a lead-in to the MBA concentration in Cybersecurity Management or the Master of Science degree in Cybersecurity.

Depending on content, students may transfer in up to 8 credits into the certificate program. All students must complete the capstone course, CYS 590, at Excelsior College.

Course Requirements

BUS/CYS 541 Ethics, Legal, and Compliance Issues in Cybersecurity	**(3 credits)**
BUS 570 Information Technology	**(3 credits)**
BUS/CYS 575 IT Risk Analysis and Management	**(3 credits)**
CYS 565 Security Management Awareness	**(3 credits)**
CYS 590 Special Topics in Cybersecurity	**(4 credits)**
Total	**16 credits**

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Broome Community College

Stuart A. Varden, EdD
(Educational Administration, Columbia University)
Professor Emeritus
Pace University

continued

Nuclear Engineering Technology Degrees

Gilbert Brown, PhD
(Nuclear Engineering,
Massachusetts Institute of Technology)
Professor
Nuclear and Chemical Engineering
University of Massachusetts–Lowell

Peter Caracappa, PhD
(Nuclear Engineering and Sciences,
Rensselaer Polytechnic Institute)
Clinical Assistant Professor
Rensselaer Polytechnic Institute

Raymond J. Dean, PhD
(Organization and Management,
Capella University)
Director of Quality and
Performance Assessment
Nine Mile Point Nuclear Station

Ronald Knief, PhD
(Nuclear Engineering,
University of Illinois)
Nuclear Engineer and Principal Member,
Technical Staff
Sandia National Laboratories

Bimal Malaviya, PhD
(Applied Physics, Harvard University)
Professor
Environmental and Energy Engineering
Rensselaer Polytechnic Institute

Thomas Mazour, MBA
(Business, University of New Haven)
Independent Consultant

Gregg Smith, MS
(Administration,
Central Michigan University)
Nuclear Utility Training Director (ret.)
Integrow

Byron E. Thinger, PhD
(Engineering Science,
University of California, Berkeley)
Senior Nuclear Engineer (ret.)
Diablo Canyon Power Plant

General Technology Degrees

Arnold M. Peskin, MSEE
(Electrical Engineering,
Polytechnic University)
Senior Scientist (ret.)
Brookhaven National Laboratory

Byron Thinger, PhD
(Engineering Science,
University of California, Berkeley)
Senior Nuclear Engineer (ret.)
Diablo Canyon Power Plant

Stuart A. Varden
(Educational Administration,
Columbia University)
Professor Emeritus
Pace University

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The Desmond Hotel and
Conference Center

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Leadership and Workforce Development
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Lockheed Martin Systems Integration

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BellSouth Telecommunications

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National Institute for
Occupational Safety and Health

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IBM Microelectronics

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Engineer I
Echostar Broadcasting

Information Technology

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City of Diamond Bar, CA

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United States Air Force HQ
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AscenTrust Ltd.

Martin Reed
Project Executive
IBM Global Business Services
US Federal Team

Nuclear Engineering Technology

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Entergy Nuclear

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Director, Operations Training
Exelon Nuclear

William Hendy
Manager, Operations Training
PG&E Company
Diablo Canyon Power Plant

John Lindsey
Corporate Training Director
Exelon Nuclear

Chriss Miller
Senior Reactor Operator
Dominion Nuclear
Millstone Power Station

Raymond Wenderlich
President
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New York State Education Department Inventory of Registered Programs

Higher Education General Information Survey Code for Classifying Academic Subject Areas.

Program Title	HEGIS	Award
School of Business and Technology, Business Programs		
Administrative/Management Studies	5004	AAS
Business	5001	AS
General Business	0501	BS
Accounting (General)	0502	BS
Accounting (NYS CPA Track)	0502	BS
Finance	0504	BS
Global Business	0513	BS
Management of Human Resources	0515	BS
Management Information Systems	0507	BS
Marketing	0509	BS
Operations Management	0506	BS
Risk Management and Insurance	0512	BS
Hospitality Management	0508	BS
Business	0506	MBA
School of Health Sciences Programs		
End of Life Care	1299	Certificate
Health Care Informatics	1203.12	Certificate
Health Care Management	1203.12	Certificate
Health Sciences	1201	BS
School of Liberal Arts Programs		
Homeland Security	5505	Certificate
Liberal Arts	5649	AA, AS
Liberal Studies	4901	BA, BS, MA
Area Studies	0399	BA, BS
Biology	0401	BA, BS
Chemistry	1905	BA, BS
Communication	0601	BA, BS
Criminal Justice	2105	BS, MS
Economics	2204	BA, BS
Geography	2206	BA, BS
Geology	1904	BA, BS

Program Title	HEGIS	Award
School of Liberal Arts Programs (continued)		
History	2205	BA, BS
Literature in English	1502	BA, BS
Mathematics	1701	BA, BS
Music	1005	BA, BS
Philosophy	1509	BA, BS
Physics	1902	BA, BS
Political Science	2207	BA, BS
Psychology	2001	BA, BS
Sociology	2208	BA, BS
World Language and Literature	1199	BA, BS
School of Nursing Programs		
Nursing	5208	AAS, AS
Nursing	1203.10	BS, RN-MS, MS
School of Business and Technology, Technology Programs		
Cybersecurity	5199	Certificate
Cybersecurity Management	0799	Certificate
Aviation Studies	5302	AAS, AOS
Technical Studies	5315	AAS
Computer Software	5103	AS
Electronics Technology	5103	AS
Nuclear Technology	5316	AS
Technology	5305	AS
Technology	0925	BS
Computer Information Systems	0702	BS
Computer Technology	0701	BS
Electronics Engineering Technology	0925	BS
Information Technology	0702	BS
Nuclear Engineering Technology	0925	BS
Cybersecurity	0702	MS

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EX0018 | EX0024 | bustech11-015 | 10/2011