Excelsior College

School of Business and Technology

The Technology Degrees catalog

www.excelsior.edu

EXCELSIOR COLLEGE®

About Excelsior College

Excelsior College was originally 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, independent college. As are all colleges in the state, Excelsior College is a member of The University of the State of New York. 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.

Excelsior College awards degrees in 36 programs: 33 at the associate and baccalaureate levels in liberal arts, nursing, business, technology, and health sciences, and 3 master's-level degrees in liberal studies, nursing, and business. The College also awards certificates in business, health sciences, and liberal arts.

The faculty of Excelsior College are drawn from many colleges and universities as well as from industry and the professions. They establish and monitor academic policies and standards, determine degree requirements and the ways in which credit can be earned, develop the content for all examinations, teach our courses, review the records of students to verify their degree requirement completion, and recommend degree conferral to the Board of Trustees.

Approximately 13 percent of the students enrolled in Excelsior College come from New York State; the remaining 87 percent come from all other states and many foreign countries. Approximately 110,000 persons have earned degrees from Excelsior College. Many of them indicate that they expect to earn a master's or higher degree at some point in the future, and a large percentage of our baccalaureate graduates pursue postgraduate study immediately after earning their Excelsior College degrees.

The Philosophy of Excelsior College

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

The Vision for Higher Education

Higher education will become an instrument through which all people can attain economic advancement, social justice, and a world at peace. Education is a good thing for all peoples and we should have more of it. Education breaks down barriers between neighbors and nations; it enhances the social fabric by creating understanding and self-sufficiency; it particularly benefits those in less favored positions in society; and, allied with an advancing technology, it can spread enlightenment and enlightened self-interest across the globe.

The Vision for Excelsior College

Ever cognizant of the great lessons learned throughout history, Excelsior College contributes to the greater world good through its programs for adult learners. The vision of Excelsior College is to become a model for ease of access to academic degree completion, through student-centered services and the validation of learning. Through this vision, the College will be recognized as the institution most responsive to the needs of career-oriented adult learners at a distance.

The Mission of Excelsior College

Excelsior College exists to expand educational opportunity, with efficiency, economy, and academic excellence, and with a particular concern for those historically underrepresented in higher education. The College meets students where they are academically, geographically, and technologically and personally assists them in reaching their goals by offering a full range of flexible academic options.

The College seeks to meet the needs of a pluralistic society, increasingly dependent on an informed and educated citizenry. It focuses upon the needs of the individual student, primarily adults, who want to advance themselves in a flexible, self-paced manner, using a variety of faculty approved learning resources, frequently at a distance. The College is an international resource, a global leader, and a prime advocate for higher and distance education.

Accreditation

Excelsior College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, 215-662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation (CHEA). The associate, baccalaureate, and master's degree programs in nursing are accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006, 800-669-1656. The NLNAC is a specialized accrediting agency for nursing recognized by the U.S. Secretary of Education. The baccalaureate degree programs in electronics engineering technology and nuclear engineering technology are accredited by the Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, 410-347-7700. The TAC of ABET is a specialized accrediting agency recognized by the U.S. Secretary of Education. The Master of Arts in Liberal Studies program has been accepted into full membership by the Association of Graduate Liberal Studies Programs (AGLSP). This constitutes accreditation in the field of graduate liberal studies. All the College's academic programs are registered (i.e., approved) by the New York State Education Department. Excelsior College Examinations are recognized by the American Council on Education (ACE), Center for Adult Learning and Educational Credentials, for the award of college-level credit. Excelsior College Examinations in nursing are the only nursing exams approved by ACE.

Technology Degrees Catalog Addendum

School of Business and Technology

June, 2008

Corrections to the *School of Business and Technology Catalog: The Technology Degrees*

Program Requirement Corrections

Page 32: Students enrolled in the Associate in Science in Technology degree program are required to complete a course or exam in computer applications or programming as part of their technical electives.

Program Objective Correction

On page 46, Objective # 8 for the Bachelor of Science in Electronics Engineering Technology degree program should read as follows:

8. Integrate knowledge of the functional areas of electronics technology.

The following corrections apply to the natural sciences requirements for several degree programs

Page 44: Bachelor of Science in Computer Technology text for mathematics and natural sciences requirements

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

Physics I–II (with at least one physics lab).

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, including Calculus I–II.

Page 46: Bachelor of Science in Electronics Engineering Technology text for mathematics and natural sciences requirements

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

Physics I–II (with at least one physics lab).

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, including Calculus I–II and Differential Equations.

Pages 54: Bachelor of Science in Nuclear Engineering Technology text for mathematics and natural sciences requirements

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

Chemistry (with lab)
Physics I–II (with at least one physics lab)
Atomic Physics
Nuclear Physics
Thermodynamics

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, including Calculus I–II.

Program Educational Objective for Graduates of BS in Electronics Engineering Technology (pg. 48), Information Technology (pg. 50), and Nuclear Engineering Technology (pg. 53)

Graduates will be able to:

1. Apply general and discipline-specific concepts and methodologies to identify, analyze, and solve technical problems.
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 one's chosen career field.

Page 39:
Updated BS Technology Program Outcomes

Graduates 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 technical specialty area including technical problem solving.
6. Demonstrate the ability to identify, analyze, and solve problems in the technical specialty area.

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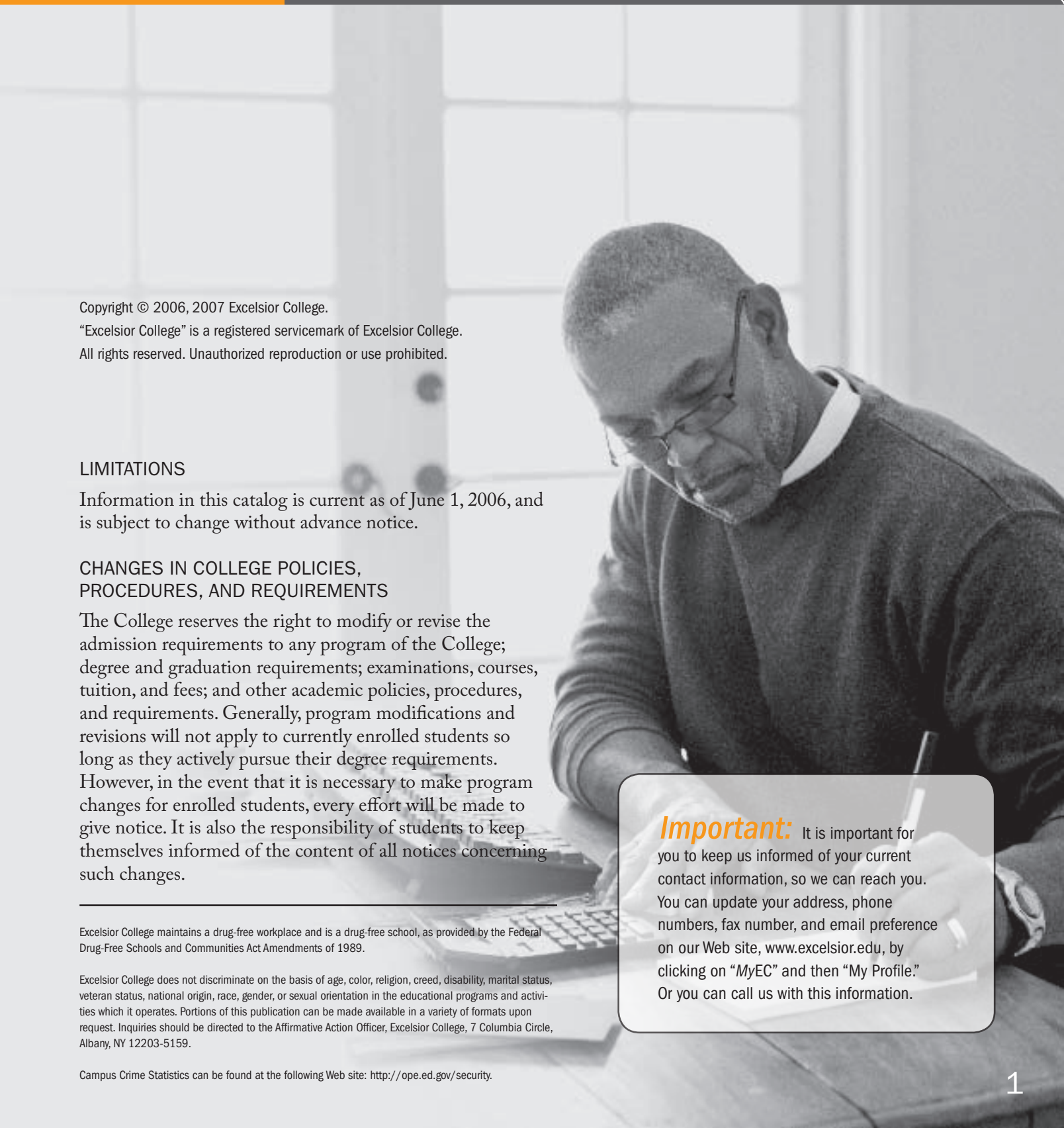
General Information



LIMITATIONS

Information in this catalog is current as of June 1, 2006, 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 to 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.

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.

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, www.excelsior.edu, by clicking on "*My*EC" and then "My Profile." Or you can call us with this information.

Excelsior College Programs

Business

Associate in Applied Science, Administrative/Management Studies*
Associate in Science, Business
Bachelor of Science, General Business
Bachelor of Science, Accounting (General)
Bachelor of Science, Accounting (NYS CPA Track)
Bachelor of Science, Finance
Bachelor of Science, Global Business
Bachelor of Science, Hospitality Management
Bachelor of Science, Management of Human Resources
Bachelor of Science, Management Information Systems
Bachelor of Science, Marketing
Bachelor of Science, Operations Management
Bachelor of Science, Risk Management and Insurance
Master of Business Administration
Certificate in Entrepreneurship

Health Sciences

Bachelor of Science in Health Sciences
Certificate in End of Life Care
Certificate in Health Care Informatics
Certificate in Health Care Management

Liberal Arts

Associate in Arts
Associate in Science
Bachelor of Arts
Bachelor of Science
Master of Arts in Liberal Studies
Certificate in Homeland Security

Nursing

Associate in Applied Science
Associate in Science
Bachelor of Science
Master of Science

Technology

Associate in Applied Science, Aviation Studies*
Associate in Applied Science, Technical Studies (with specialty)*
Associate in Occupational Studies, Aviation*
Associate in Science, Computer Software
Associate in Science, Electronics Technology
Associate in Science, Nuclear Technology
Associate in Science, Technology (with specialty)
Bachelor of Science, Technology (with specialty)
Bachelor of Science, Computer Technology
Bachelor of Science, Electronics Engineering Technology
Bachelor of Science, Information Technology (with concentration)
Bachelor of Science, Nuclear Engineering Technology

*Designed specifically to meet the needs of members of the armed services.

Sources of Undergraduate Credit

Excelsior College accepts credits from a wide variety of sources represented by those listed on our *Sources of Undergraduate Credit* below. In general, Excelsior College accepts credits from those colleges and universities that are regionally accredited; those recognized by the New York State Education Department; and those that have been evaluated by the Excelsior College faculty and found to follow acceptable educational practices and apply toward our degree programs.

Sources of Undergraduate Credit

1. Excelsior College courses
2. Transfer of degree-level credit from regionally accredited and NYS Education Department-approved colleges and universities
3. College-level proficiency examination programs reviewed by the American Council on Education (ACE) College Credit Recommendation Service of the Center for Adult Learning and Educational Credentials
4. College-level proficiency examination programs reviewed by Excelsior College faculty
   a. Information Technology (IT) Vendor Certification Examinations (Microsoft, CompTIA, Cisco, Sun, International Computer Driving License [ICDL], etc.)
   b. Graduate Record Examination (GRE) Subject Tests
   c. National Commission on Certification of Physician Assistants (NCCPA) Physician Assistant National Certifying Examination (PANCE)
   d. National Certification Board of Pediatric Nurses General Pediatric Nursing (GPN) Certification Examination
   e. New York University Foreign Language Proficiency Tests
   f. Hebrew University of Jerusalem Examination
   g. Approved proficiency examination programs listed in Excelsior College DistanceLearn® database
   h. Adult, Pediatric, or Neonatal Critical Care Certification (CCRN) through the AACN Certification Corporation
   i. Oncology Certified Nurse (OCN) or a Certified Pediatric Oncology Nurse (CPON) through the Oncology Nursing Certification Group
   j. Certified Rehabilitation Registered Nurse (CRRN) through the Rehabilitation Nursing Certification Board
5. Programs reviewed by the American Council on Education (ACE) College Credit Recommendation Service of the Center for Adult Learning and Educational Credentials, by the New York State Board of Regents National Program on Noncollegiate Sponsored Instruction (National PONSI), by the Excelsior College Criminal Justice Training Assessment Program, or by the Excelsior College Faculty (e.g., Nuclear Utility Accreditation Program (NUAP), Game Institute, and General Physics)
6. International Credentials

   Degree-level credit at approved universities or university-parallel institutions beyond the United States. Transcripts are evaluated by Educational Credential Evaluators, Inc. (ECE), Commission on Graduates of Foreign Nursing Schools (CGFNS), Josef Silny & Associates, Inc. (for Israel only), GLOBE (for Russia only), and other faculty-approved international institutions.
7. Evaluation of extra-institutional learning (Excelsior College endorses the Council for Higher Education and Accreditation statement on the validation of extra-institutional and experiential learning for transfer purposes)
8. Excelsior College, Charter Oak, and Ohio University portfolio-based assessment
9. Federal Aviation Administration (FAA) Fixed Wing Certificates
10. Degree-granting professional school programs with Council for Higher Education (CHEA) professional accreditation following Excelsior College's policy on credit acceptance of transcripts from non-regionally accredited professional schools
11. College-level credit from any degree granting institution accredited by the Distance Education and Training Council (DETC) that also has been approved and recommended by the American Council on Education's (ACE) College Credit Recommendation Service
12. Association of Advanced Rabbinical and Talmudic Schools (limited)

Examples of Graduate Schools Accepting Our Graduates

American University
Arizona State University
Boston University
Brigham Young University
Catholic University
Columbia Law School
Cornell University
Fordham University
Harvard University
Indiana University
The Johns Hopkins University
Michigan State University
The New School for Social Research
Northwestern University
The Ohio State University
The Pennsylvania State University
Rutgers University
Syracuse University
Temple University
University of Arizona
University of California, Berkeley
University of Colorado
University of Kentucky
University of Massachusetts
University of Miami
University of Michigan
University of North Carolina, Chapel Hill
University of Notre Dame
University of Texas
Vanderbilt University
Villanova University
Yale University

Excelsior College: Suiting Your Lifestyle, Meeting Your Needs

No matter where you live, no matter how busy you are, Excelsior College offers the flexibility you need to finish your college degree.

Excelsior College may be the program to help you complete your undergraduate degree if you

- have taken some college-level courses.
- have acquired college-level learning through other means and want to apply it toward a degree.
- need flexibility in the place and time frame in which you earn your degree.
- prefer to work at your own pace.
- have a schedule that would make it difficult to attend a traditional college.

We believe that "what you know is more important than where or how you learned it."® We recognize that you can demonstrate your college-level knowledge and competencies through a variety of means including the submission of transcripts from regionally accredited colleges and universities and other approved sources, theory or performance examination results, and other assessment procedures.

We also believe that your need for further learning can be met in a variety of ways, both traditional and nontraditional, from passing proficiency examinations to taking college courses to pursuing independent study.

Independent learners are take-charge people. If you are one of them, Excelsior College can help you organize your efforts to meet your educational goals. As a leader in innovative education, we work in partnership with other colleges and universities and with employers and other organizations to remove barriers to educational opportunity.

Most of our graduates are working adults who once thought they could never attain a college degree. Yet thousands of students around the world have fulfilled their dreams by earning associate and bachelor's degrees through our unique program.

And now, with the introduction of our Certificate Program in Health Care Informatics and our Master of Arts degree in Liberal Studies (MA/LS), Master of Science in nursing, and Master of Business Administration (MBA) programs, graduate students can also take advantage of the flexibility and unique program offerings at Excelsior College.

Unless otherwise specified, information in the general sections of this catalog pertains to undergraduate degree programs. Specific graduate program information is presented in program materials and catalog sections pertaining to the particular graduate programs. We welcome your requests for further information and encourage you to contact the College and speak with an admissions counselor regarding any questions you may have about our graduate program offerings. You can also find information about all our programs on the College's Web site at **https://www.excelsior.edu.**

Is Excelsior College Right for Me?

If you want to earn a college degree and have the motivation to work toward that goal, we can help. It is up to you to decide whether or not Excelsior College is the program for you. You have a good chance of succeeding as an Excelsior College student if you

- are a motivated self-directed learner.
- have already acquired some college-level learning through college courses, the military, corporate training, independent study, work experience, or extensive reading.
- are comfortable working at a distance via phone, mail, or Internet, rather than in person.
- have the ability to plan ahead, be detailed in your work, and meet deadlines.
- are able to assimilate information from written materials and to locate and use a variety of learning resources.

As you are making your decision about enrolling in Excelsior College, you should study the degree requirements listed in a current catalog for the degree you wish to earn. Please be aware that you will be subject to the program requirements and College policies in effect when you enroll. Some requirements and policies change periodically and as an enrolled student you will be notified accordingly. You can access all our catalogs on the Excelsior College Web site, and we will be happy to send you hard copies of current materials at any time.

As a distance learning institution, Excelsior College provides access and support for many of the unique needs of adult learners. Misconceptions about

distance learning may cause confusion, and some students may have unrealistic expectations regarding the services and programs we offer. Therefore, as you consider enrolling in Excelsior College, it may be helpful to learn about some of the services we do *not* provide. Excelsior College *does not*

- automatically award credit for all educational experiences.
- grant credit for life experience rather than for learning gained from that experience.
- guarantee that all previously earned credit will fulfill degree requirements.
- provide on-the-spot evaluation and/or advisement services.
- provide clinical learning experience for nursing students.
- send a diploma until all the degree requirements listed in our catalogs have been fulfilled and the degree has been conferred.

How Will an Excelsior College Degree Help Me?

An Excelsior College degree will help you

- get ahead in your career.
- increase your salary.
- boost your self-confidence.
- prepare for success in graduate school.
- achieve personal satisfaction in completing what you started.

You could be one of the approximately 5,000 adults who graduate from our College each year, motivated individuals who achieve their goals and move forward in their lives.

Surveys of the College's baccalaureate degree graduates have shown that a large percentage continue on to graduate and professional schools. Over 250 graduate institutions have admitted our graduates. These have included many of the most competitive and prestigious in the country, schools such as Columbia University, Harvard University, The Ohio State University, UCLA, and Yale University. Most graduate programs in nursing in the United States accept our graduates. Many of our graduates say that the independence and motivation required for success in their degree programs proved to be equally valuable assets for success in graduate school.

Our graduates report their degrees have enhanced their lives in other ways as well. A large number of graduates report that through their independent college studies they have enjoyed significant intellectual growth, enhanced their critical thinking abilities, improved their oral and written communication skills, and experienced personal growth and fulfillment. Workers and employers alike believe that this unique type of college experience provides excellent preparation for jobs and career growth.

How Do I Get My Degree?

The flexibility of an Excelsior College undergraduate degree program means you can demonstrate your previous college-level learning and earn degree-level credit in a variety of ways. We will help you identify and evaluate the college-level learning you have already acquired, and our academic advisors will help you develop a realistic plan for completing your degree requirements as effectively and efficiently as possible.

You may want to take advantage of Excelsior College's course offerings or study independently and then take proficiency examinations such as Excelsior

College® Examinations to earn required credits (minimum grade of C required). You may choose to take courses from other approved colleges or universities and apply credits from those courses to your degree requirements as well. Distance learning is attractive to many students because distance courses are more flexible and self-paced than classroom courses, yet more structured and directed than independent study. Excelsior College and many other colleges and universities offer distance courses. These courses are generally available in formats such as online, CD-ROM, print, correspondence, and audio or video. You may even decide to use a combination of these sources of credit. We encourage you to use the Course Search feature on our Web site to locate courses that will fulfill your degree requirements.

If you enroll in an Excelsior College graduate or certificate program, you will also have a degree of flexibility in planning your requirement completion within a specific framework of options.

Degree Programs

Excelsior College offers 36 different degree programs at the associate and baccalaureate levels in business, liberal arts, nursing, health sciences, and technology—and master's-level degree programs in business, liberal studies, and nursing. The College also offers a number of certificate programs. Information about these programs is available upon request and on the College's Web site.

If you are a New York State resident and do not have a high school diploma, Excelsior College can help you obtain a high school equivalency diploma after you have accumulated 24 college credits. This diploma is issued by the New York State Education Department. For further information, contact the New York State Education High School Equivalency Department at 518-474-5906.

Degree Requirements

The Excelsior College curricula are rigorous yet flexible. All undergraduate Excelsior College degree programs require college-level learning in (1) general education, (2) a specific field of study, and (3) elective subjects.

Note: The certificate and graduate programs have more focused yet still flexible requirement categories. Please refer to program-specific information for details if you plan to enroll in a certificate or graduate program.

The general education requirements of our undergraduate degree programs ensure that you have a good foundation in the natural sciences, the humanities, and the social sciences. The College expects you to master quantitative skills and to be able to communicate effectively in writing and speech. In addition, we strongly recommend that you cultivate an understanding of the history and cultural values of many different ethnic and cultural groups. A sensitivity to the perspectives of all groups provides valuable insight into the continuing development of the global community.

Completion of the requirements in a specific field of study prepares you professionally in business, nursing, or technology, or facilitates mastery of a discipline in arts or sciences in preparation for continued education or career growth. Elective/applied professional subjects allow you to pursue personal learning interests and satisfy your intellectual curiosity.

Finally, the College encourages you to recognize that true learning is lifelong and that the deepest satisfactions come when you attain your highest level of accomplishment.

How Do I Get Started?

Excelsior College is open to all who wish to pursue a college degree. 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 education programs and activities it operates. The College encourages students to seek admission if its programs and services will meet their educational needs. Some degree programs have special admission criteria.

*My*EC

It is important that you visit the Excelsior College Web site as soon as possible. Register at the site, and you will find your own "*My*EC" home page, which will include information tailored to your specific academic program information needs as well as announcements from the College. Visit the Web site often for important updates. Please remember to always keep the College informed of your email address.

First Apply

Like everything else at Excelsior College, our admissions process is geared toward busy, working adults:

- You can start on your degree anytime.
- The first step toward completing your degree is to submit the Undergraduate Application for Admission.

  Note: If you have graduated from an Excelsior College degree program or have been enrolled in an Excelsior College degree program within the last five years, please contact your academic advisor. You can apply online by visiting the If you prefer to use a paper application, you can download a pdf of the application instead.

  If you have any questions before completing your Application, please contact the Admissions Office in one of the following ways:

  - Call toll free: 888-647-2388 (press 2-7 at the prompt)
  - Email: admissions@excelsior.edu.

- With your application, you will also submit official copies of your academic records from all the sources you wish to present for credit toward a degree. These include official transcripts from accredited colleges and universities, score reports from testing agencies, international credentials evaluations, and documentation from military or corporate education programs. Photocopies or unofficial copies of these documents cannot be accepted. Please review carefully the instructions accompanying the Undergraduate Application for Admission for specific information relating to the proper submission of your academic records. (Military candidates can refer to pages 8 and 9 for more specific information.)
- After you apply, we will send you an **unofficial review** that shows the requirements you have already fulfilled for your chosen degree program and what credits you still need to complete to finish your degree. You may be closer than you think!
- Our knowledgeable admissions counselors (available by phone or email) can explain our programs to you and help you take the steps you need to get started.

Then Enroll

Once your application to Excelsior College is accepted, the next step toward meeting your educational goals is to enroll. If you have not gone through the application process, you must do so before enrolling. If you decide to enroll in Excelsior College as an undergraduate, you may do so at any time during the year.

To enroll, simply go to **www.excelsior.edu/enroll** where you can enroll online. You will be prompted to create a user account if you have not already done so.

Complete the online enrollment form and pay your fee with secure-access credit card payment or apply for our payment plan online.

If you enroll online, you must pay your enrollment fee with a credit card. We accept

- Visa,
- MasterCard, and
- Discover Card.

If you prefer to use a paper enrollment process, you can download a pdf of the enrollment form from **www.excelsior.edu/enroll**. Simply fill out the enrollment form and submit it with the required enclosures as specified on our fee schedule to the address indicated. Your enrollment will be official when we receive and process your enrollment form. You will then receive an acknowledgment letter and information packet from the Records Office.

The cost to enroll in Excelsior College varies according to the program in which you enroll and the payment method you choose for paying your tuition fees.

For detailed information about enrollment fees and associated costs, go to the Excelsior College Publications Request page **(www.excelsior.edu/publications)**, where you can access, view, and print out the fee schedule relevant to your student status and chosen area of study.

If you have any questions before completing your enrollment form, please contact the Admissions Office in either of the following ways:

- Call toll free: 888-647-2388 (press 2-7 at the prompt)
- Email: admissions@excelsior.edu.

When we receive your completed enrollment form along with any additional academic records earned since your admissions application, we will compare your educational experience to the requirements of your selected degree program. This initial evaluation usually takes four to six weeks to complete once all documents are received by Excelsior College. After your advising team has completed your evaluation, your status report and evaluation summary will be available on our Web site. Your status report indicates how we applied credit represented on the documents; the evaluation summary tells you what you still need to complete for your degree requirements. You will receive email notification when the evaluation is ready for you to view at your *My*EC page. If you are not an e-delivery student, your evaluation will be mailed to you.

Note: If within three weeks of your enrollment we have not received all the official documents listed on your enrollment form, we will conduct the initial evaluation based upon the information received to date. As new official documents are received, your status report will be updated accordingly. Updates are usually completed in four to six weeks. Once you have your status report in hand, we will then work with you to help plan the ways in which you can earn the additional credit you need to fulfill your goal of earning a college degree.

The Student Online Success Guide

This resource is designed to help prepare students for online success. Included are self-assessment tools, study strategies, and assistance with identifying your learning style. Navigate the Student Online Success Guide by reading the Introduction and continuing through the topics listed in the menu. Be sure to view a sample Excelsior College online course in WebCT. Courses in WebCT provide an experience that is most like traditional education. Scroll to the link titled Sample Course to view this interactive simulation. Each demo provides a short movie with accompanying text, showing you the look and feel of the courses you may be taking.

Begin the Process of Earning Your Excelsior College Degree

Excelsior College uses team advising to support you in your educational progress. After you enroll, we will assign you an advising team based on your degree program. Your academic advisors will help you plan your degree program and select appropriate methods for completing degree requirements. They can help you locate distance learning and proficiency examination options to fulfill our degree requirements.

The student policy handbook, available in pdf format at **www.excelsior.edu/studentpolicyhandbook**, includes useful guidelines and tips on making our advising system work for you. Excelsior College also offers a unique Course Search feature at our Web site that allows enrolled students to search for specific courses to complete their degree requirements. If you choose to use traditional college courses, it is your responsibility to locate such courses. Regardless of the method used to earn credit, you must receive prior approval from your advisor to ensure that the credit earned will apply toward your Excelsior College degree.

Each time you complete additional examinations or courses that fulfill your degree requirements, you should request that an official transcript be sent to the Excelsior College Records Office. Provided you remain actively enrolled, we will continue to update your status report until our records indicate you have satisfied all the requirements for your degree, at which time your records will automatically be submitted for the next eligible degree conferral.

Undergraduate Enrollment Policies

You may be enrolled in only one degree program at a time. If you withdraw from the College and subsequently reenroll, you will have to satisfy the degree requirements in effect at the time of your reenrollment.

Some of our degree programs have admissions criteria, and academic requirements may vary among them. You'll find information on any criteria or requirements specific to a degree program in the catalog for your degree program. The College does have general policies and procedures that apply to all of our degree programs. Detailed descriptions may be found in the *Student Policy Handbook* available on our Web site at www.excelsior.edu/studentpolicyhandbook.

By enrolling in the College, you agree that your contractual relationship with the College will be governed by the laws of the state of New York; and that any litigation or assertion of rights in a judicial or quasi-judicial forum will be brought only in a court or other forum having jurisdiction within the state of New York.

Submission of Military Documentation

The forms required for providing official documentation of military educational experiences can be requested from the following sources.

Active Duty Personnel, National Guard, Reservists

- **Air Force:** Enlisted Air Force Personnel: Community College of the Air Force transcript submitted directly from CCAF, 130 W. Maxwell Blvd., Simler Hall, Suite 104, Maxwell AFB, AL 36112. Commissioned Officers should request an official DD Form 295 submitted directly from the military education center.
- **Army:** Enlisted Army Personnel: AARTS (Army/American Council on Education Registry Transcript System) sent directly from the AARTS Operations Center, 415 McPherson Ave., Fort Leavenworth, KS 66027-1373. Information on ordering an Official Institution Copy of your AARTS Transcript and eligibility requirements is available online at https://arts.leavenworth.army.mil or by phone at 866-297-4427. Officer/Warrant Officer Army Personnel should request an official DD Form 295 submitted directly from the military education center. Army National Guard Personnel may wish to contact the Army National Guard Education Support Center for assistance in degree program planning online at www.virtualarmory.com or by phone at 877-632-7644.
- **Coast Guard:** Coast Guard Transcript submitted directly from the Coast Guard Institute, 5900 SW 64th St., Room 235, Oklahoma City, OK 73169-6990. Information on ordering an official Coast Guard Transcript is available through your Education Services Office or online at www.uscg.mil/hq/cgi.
- **Marine Corps:** SMARTS (Sailor/Marine ACE Registry Transcript) available through your Education Services Office. Log on to https://www.navycollege.navy.mil or call 877-253-7122 for SMARTS Transcript ordering information.
- **Navy:** SMARTS (Sailor/Marine ACE Registry Transcript) available through your Education Services Office. Log on to https://www.navycollege.navy.mil or call 877-253-7122 for SMARTS Transcript ordering information.

Servicemembers With Language Training

- Defense Language Institute Courses-Transcript submitted directly from DLI.
- Defense Language Proficiency Tests (DLPT)-DLPT Score Report submitted directly from DLI or DLPT Score Report/DA Form 330 submitted directly from the military education center with certifying officer's signature and date.

Veterans of All Branches Except Enlisted Air Force Personnel

Official copy of the DD Form 214. The DD Form 214 must be signed, currently dated, and certified to be a true copy and submitted directly from one of the following sources:

- Veterans Affairs (VA) Office (state- or county-level)
- County Clerk's Office
- General Services Administration-National Personnel Records Center (Military Personnel Records), 9700 Page Boulevard, St. Louis, MO 63132

Note: Students may submit certified copies of military documentation from the originating source in a sealed envelope and forwarded to Excelsior College unopened.

Military Partnerships

Navy College Program Distance Learning Partnership

Excelsior College offers associate and bachelor's degrees designed to meet the needs of Sailors through the Navy College Program Distance Learning Partnership. Students can take Excelsior College Distance Learning Courses delivered through CD-ROM and video no matter where they are to earn credit toward their degree. Courses begin every other month and are eligible for up-front Tuition Assistance. There are many student support services available such as academic advising by phone, fax, and email; online library services; and an online bookstore, which delivers course materials directly to you. This program is outlined in detail at www.excelsior.edu.

SOCCOAST/Coast Guard Distance Learning Partnership

Excelsior College offers associate and bachelor's degrees designed to meet the needs of Coast Guard personnel through SOCCOAST/Coast Guard Distance Learning Partnership. Students can take Excelsior College Distance Learning Courses delivered through CD-ROM and video no matter where they are to earn credit toward their degree. Courses begin every other month and are eligible for up-front Tuition Assistance. There are many student support services available such as academic advising by phone, fax, and email; online library services; and an online bookstore which delivers course materials directly to you. This program is outlined in detail at www.excelsior.edu.

Army National Guard Education Support Center (MOU)

Excelsior College has formed a partnership with the Army National Guard Education Support Center (ARNG ESC) to meet the needs of Army National Guard (ARNG) soldiers, their family members, and ARNG civilian employees. Under this agreement, the ARNG ESC will publicize Excelsior College on their Web site and in National Guard related publications, generate an automated degree plan for Excelsior College prospective students for the degree program of their choice, assemble and submit official enrollment packets, and provide examination study material through the Student Guide to Success. Excelsior College will review the degree plans generated by the ARNG ESC, provide feedback to the student who may need assistance, and send a monthly list of enrollments to the ARNG ESC.

eArmyU

The U.S. Army has created one of the most innovative programs of higher education in the world—Army University Access Online (known as eArmyU). eArmyU provides access to quality education for enlisted soldiers across the globe, helping them further their professional and personal goals and providing the Army with top preparation for its forces. It brings together a unique collaboration of colleges and universities offering a broad range of educational opportunities. Once enrolled, soldiers receive up to 100% funding for tuition, books, and course fees, as well as a personal laptop, printer, email account, and an Internet Service Provider (ISP) account. eArmyU provides soldiers with assistance in determining a program of study, registering for courses, and transferring credits. Excelsior College is a participating college in eArmyU delivering the Master of Arts degree in Liberal Studies and Master of Science degree in nursing. These two graduate degree programs can be completed entirely online.

DANTES

DANTES is the umbrella organization that oversees all military education programs for the armed services. DANTES publicizes Excelsior College degree programs in their DANTES *Directory of External Degree Programs*, DANTES *Guide to Independent Study*, DANTES Distance Learning Brochures, and DANTES *Examination Program Handbook*. Excelsior College has a contract with DANTES for the administration and funding of Excelsior College Examinations to active-duty, reserve, and National Guard military personnel.

Credit Assignment

Credit assignment for examinations is determined by faculty content experts who reference the learning outcomes assessed by each examination to corresponding courses taught at United States colleges and universities. These credit assignments are recognized by the American Council on Education through their College Credit Recommendation Service. Credit assignment for online courses is determined by faculty content experts

who consider the depth and breadth of the content, required learning activities and student assignments, and learning outcomes.

General Education Outcomes Measurement

There is currently a movement in higher education to provide hard evidence of student success, generally referred to as outcomes assessment. Periodically, Excelsior College students will be asked to take a test to measure their attainment of the general education outcomes. The assessment results are used to continuously improve our programs as well as to report on the effectiveness of our institution. Scores on general education outcomes assessments are kept completely confidential and do not appear on individual student transcripts, although favorable scores can be reported to employers and other educational institutions at the request of participants. There is no fee for participating in the general education outcomes assessment.

Costs of an Excelsior College Education

The cost of earning your Excelsior College degree will depend upon the requirements of your degree program, the pace at which you complete that program, and the ways through which you choose to earn credit. If you primarily take college courses, for example, you will have higher costs than if you primarily take examinations, because tuition fees are often higher than examination fees.

While the College's fees are intentionally kept reasonable in order to accommodate adults with other financial responsibilities, in most cases they will not be the only costs incurred. As you develop your budget, you should take into account the cost of college courses, examinations, books and other learning materials, transportation, postage, online resources, and miscellaneous charges and supplies.

Our fee structure allows you to pay designated fees as you go through the process of earning your degree. Bear in mind that if you have already earned a great deal of credit, your costs should be relatively low, whereas if you begin your degree program with little prior credit, your costs will be higher.

The following are the major fees that students pay to Excelsior College. Please note that there are distinct fee policies and structures that apply to students in the military and students who are enrolled in our undergraduate and graduate degree programs. For more detailed information, refer to the relevant fee schedule or consult with your academic advisor or the Admissions Office.

Required Fees

- The application fee covers the cost of processing your application and the unofficial evaluation by your team of academic advisors of your prior academic credits from official college transcripts, score reports, and additional official academic records.
- The enrollment fee covers the cost of processing your enrollment form and the official evaluation by your team of academic advisors of your prior academic credits from official college transcripts, score reports, and additional official academic records. It also allows access to all Excelsior College student services and online services such as the Excelsior College Virtual Library, your customized *My*EC Web page, and the Electronic Peer Network (EPN). This fee also covers the evaluation of additional official academic records you submit, academic advising, and program planning services for a period of one year from the date your initial Status Report notification (or two years from such date if you enroll in an AAS or AOS degree program within the School of Business and Technology).

- If you are submitting credentials from universities located outside the United States, you may be required to pay an additional fee to an independent credential evaluation service to have those documents reviewed for equivalency to U.S. degrees and courses.
- The Student Service Annual Fee (SSAF) covers the cost of twelve months of evaluation of academic records submitted by you or the source directly, academic advising and program planning services, and maintenance of your student records. The SSAF is assessed each year you renew your enrollment at Excelsior College (or after your second year in an AAS or AOS degree program within the School of Business and Technology), approximately six to seven weeks prior to the anniversary date of issuance of your initial Status Report. If it takes you more than a year (or two years in an AAS or AOS program) to complete your degree program from the date of issuance of your initial Status Report, you will need to stay actively enrolled in the College by paying this fee. You may pay your SSAF fee in full by the due date or you may use our SSAF payment plan to budget and pay your SSAF. See below for details.

  Note: Failure to pay the SSAF when due will interrupt your progress toward reaching your educational destination, and the College may be forced to change your status from "active" to "withdrawn."

SSAF Payment Plan

We are pleased to offer our SSAF Payment Plan to help you stay on track toward earning your degree. The SSAF Payment Plan is an affordable way to budget and pay your Student Service Annual Fee.

You can budget your Student Service Annual Fee (SSAF), choosing from two to six monthly payments.

If you have questions about the SSAF Payment Plan, please call our Student Accounting Office toll free at 888-647-2388; at the prompt, press 1-4-2.

The Graduation Fee

- This fee covers the cost of the final evaluation and verification of your total academic record, costs involved in processing your records for award of your degree, one student (unofficial) and one official copy of your final transcript, and preparation and mailing of your diploma and diploma cover.

Additional Fees

- In terms of additional fees, the exact expense you incur at Excelsior College will be largely influenced by the degree program you choose. For example, if you are a nursing student, you will be required to take theory and performance examinations for which additional charges are assessed. Likewise, if you enroll in the electronics engineering technology or nuclear engineering technology program, you will be required to complete an Integrated Technology Assessment (ITA) for which an additional charge is assessed.

Sample Optional Fees

- The Transcript Fee covers the cost of preparing and mailing an Excelsior College transcript.
- The Program Transfer Fee is assessed if you decide to transfer from one degree area (division) to another (e.g., from the School of Business and Technology to the School of Liberal Arts). The fee covers the cost of reevaluating your records to determine how they apply to the requirements of the new program.
- A Late Fee is assessed if you do not pay fees by the date shown on the invoice. The Late Fee applies to past due payments of the Student Service Annual Fee (SSAF) or the Graduation Fee.
- A Reactivation Fee is assessed if you reenter your degree program within twelve weeks of our changing your status from "active" to "withdrawn" because of your failure to pay the Student Service Annual Fee (SSAF) within four weeks of its due date. If you reenter your degree program more than twelve weeks after this status change, you will be considered a new student and subject to the full enrollment fee and all policies in effect at that time.

General Refund Policy

The fees described above are not refundable. The only exception allows two thirds of the enrollment fee to be refunded if you request a refund in writing within six months of enrollment and if the College has not yet conducted an evaluation of your academic records.

Detailed information about refund, payment, and cancellation policies related to specific programs and student populations is provided in relevant fee schedules, which are accessible on the College's Web site and available free upon request from the Admissions Office.

Policies and Procedures

Excelsior College has various academic and administrative policies that are important as you move forward with your studies. Information on these policies can be found at **www.excelsior.edu/policies**. Those that apply only to a specific degree program may also be listed in the catalog for that program. Please take a few minutes today to review this valuable information.

It is your responsibility to be familiar with all the policies related to your activity as a student at Excelsior College. The term "student" includes: students 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 credit bank, formerly matriculated students currently in withdrawn status, and graduates.

Technology Degree Programs Information

Excelsior College offers technology programs that enable you to earn credit and complete degree requirements at a distance, fostering enhanced career opportunities for motivated individuals while increasing opportunities for professional organizations and corporations to develop a more technologically literate workforce.

Associate-level technology degree programs:

Sample technical specialty and technical elective subjects:

Baccalaureate-level technology degree programs:

The use of proficiency examinations for technology degree credit

The baccalaureate degree programs in Electronics Engineering Technology and Nuclear Engineering Technology are accredited by the Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET). TAC of ABET is a specialized accrediting agency recognized by the U.S. Secretary of Education.

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; the rest of this catalog contains more detailed descriptions and other relevant information.

You are a good candidate for a baccalaureate-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 Program on Noncollegiate Sponsored Instruction (National PONSI);
- 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.
- satisfy technology component requirements through a combination of methods, including traditional classroom study, proficiency examinations, approved military- and industry-sponsored credit, and/or distance courses. Proficiency examinations and distance courses may not be available for some core and laboratory requirements, but generally these requirements may be completed through traditional coursework.

Degree Program Components

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 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 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 except physical education activity courses.

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.

Requirements and Policies for Technology Degrees

Written English Requirement

You must demonstrate competency in expository writing in English in one of the following ways:

1. Successful completion of an approved college-level proficiency examination such as the Excelsior College Examination in English Composition **[ENGx101 College Writing** and **ENGx111 English Composition]** or the Advanced Placement (AP) English Examination.

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

2. Successful completion of a college course (minimum 3 semester or 4 quarter-hour credits; minimum grade of C) from one of the following options:
   a. One-semester expository writing course such as such as **[ENG 131: Elementary Composition, ENG 231: Professional Writing Skills** and **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.
3. Submission of an official statement of proficiency from a regionally accredited institution, from which transfer credit is being accepted, verifying satisfactory completion of its writing requirement.
4. Completion of a noncollegiate sponsored instruction course or program on writing that has been evaluated by either the New York State Board of Regents National Program on Noncollegiate Sponsored Instruction (National PONSI) or the American Council on Education (ACE), Center for Adult Learning and Educational Credentials, and which contains a recommendation of at least 3 credits for the course. This course must contain an actual assessment of your competence in expository writing in English.

Examinations or courses used to fulfill the Written English Requirement may not be used to satisfy the humanities distribution requirement of an Excelsior College degree (except the six-credit Excelsior College **ENGx111 English Composition** exam for which three credits may be used for humanities and three credits satisfy the written English requirement). All coursework must be from an English-speaking institution. An English as a Second Language (ESL) course may not be used to satisfy the Written English Requirement. A maximum of 6 credits in English Composition/Freshman English can apply toward degree requirements.

Examples of one-semester courses from other colleges and universities (3 credits) that will satisfy the Written English Requirement:

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

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 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 his or her 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 advisor team.

Level Requirement

Excelsior College baccalaureate-level technology degree programs require 15 or 16 upper-level credits within the technology 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.

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 or free elective credits component 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.

Free Elective Credits

All Excelsior College technology baccalaureate 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 such as, but not limited to: agriculture, architecture, business, criminal justice, education, graphic design, law, library science, medicine, and nutrition.

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. Representative titles of math courses below the level of calculus include College Math, College Algebra, Elementary Functions, Modern Math, Fundamentals of Algebra, Trigonometry, and Precalculus.

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 course or examination grades of C or higher (to include pass (P) grades) may be used to satisfy the technology, or other specific, degree requirements. You may apply credit to the general arts and sciences and free electives components, as long as your overall GPA is at least 2.00.

Time Limits

Since the content of different technologies changes at varying rates, each degree program has 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, computer technology, and electronics technology is ten years prior to the date of enrollment.** See particular degree information for further details.

Associate Degree Programs in Technology

Associate in Applied Science, Associate in Occupational Studies, and Associate in Science

Associate in Applied Science in Aviation Studies

and

Associate in Applied Science in Technical Studies

Excelsior College offers two associate in applied science degrees in technology:

Associate in Applied Science in Aviation Studies
(for pilots only)

Associate in Applied Science in Technical Studies, with a specialty in one of the following areas:

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

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.

While these degree programs were 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 programs may also be appropriate for some non-military students. Graduates of these programs, who are interested in continuing on to baccalaureate-level study, should contact the technology advising team for advice on the preferred program of study.

I. Arts and Sciences Component

The Associate in Applied Science in Aviation Studies and the Associate in Applied Science in Technical Studies require a minimum of 20 credits in the arts and sciences distributed as follows:

A. Humanities: At least 6 credits must be earned in humanities. Three credits must come from a course that satisfies the Written English Requirement (see page 16). The remaining 3 credits must be in humanities subjects other than writing, which include literature, foreign languages, religion, philosophy, art, ethics, and music.

B. 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.

C. Natural Sciences/Mathematics: At least 6 credits must be earned in natural sciences/mathematics. Some sample subjects are biology, chemistry, physics, geology, college algebra, trigonometry, calculus, and statistics.

II. Career Component

The Associate in Applied Science in Aviation Studies and the Associate in Applied Science in Technical Studies degrees require a minimum of 20 credits in the career component. The career component consists of technology credits related to your career field.

III. Free Elective Component

The Associate in Applied Science in Aviation Studies and the Associate in Applied Science in Technical Studies degree programs allow room for up to 20 credits in free electives. Applied to this component is the 1 credit for Excelsior College's Information Literacy Requirement. See page 16 for more information about information literacy.

CHART 1

Associate in Applied Science Degree in Aviation Studies
and
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	3
Social Sciences/History	3
Behavioral Sciences	3
Natural Sciences/Mathematics	6
Arts and Sciences Electives	2
Total Arts and Sciences	**20**

Other Requirements

	Credit Hours
Career Component	20
Free Electives (includes 1-credit Information Literacy Requirement)	20
Total Other Requirements	**40**

Associate in Occupational Studies in Aviation

Excelsior College offers an Associate in Occupational Studies in Aviation. This degree program was designed specifically to meet the needs of pilots with military backgrounds by recognizing the college-level learning that takes place as a result of military training. Graduates of this degree program who are interested in continuing on to baccalaureate-level study should consult the technology advising team for advice on the preferred program of study. **(for pilots only)**

I. Arts and Sciences Component

The Associate in Occupational Studies in Aviation requires a minimum of 9 credits in the arts and sciences distributed as follows:

A. Written English Requirement: At least 3 credits must come from a course that satisfies the Written English Requirement (see page 16).

B. Behavioral Sciences: At least 3 credits must be earned in the area of behavioral science. Behavioral science subjects include, but are not limited to, psychology and sociology.

C. College Mathematics: At least 3 credits must be earned in mathematics at the level of college mathematics or above.

II. Career Component

The Associate in Occupational Studies in Aviation requires a minimum of 45 credits in the career component. The career component consists of technology credits in the aviation field.

III. Free Elective Component

The Associate in Occupational Studies in Aviation allows room for up to 6 credits in free electives. Applied to this component is the 1 credit for Excelsior College's Information Literacy Requirement. See page 16 for more information about information literacy.

You may earn the remaining 5 credits in any field of college study, including professional or technical subjects, as well as in the arts and sciences. Credit is not granted for physical education activity courses.

CHART 2

Associate in Occupational Studies in Aviation

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

Arts and Sciences Component

	Credit Hours
Written English Requirement	3
Behavioral Sciences	3
College Mathematics	3
Total Arts and Sciences	**9**

Other Requirements

	Credit Hours
Career Component	45
Free Electives (includes 1-credit Information Literacy requirement)	6
Total Other Requirements	**51**

Associate in Science in Computer Software

The Associate in Science in Computer Software degree program is designed primarily for adults in industry, government, and the military. Earning the AS in Computer Software can be a goal in itself or an intermediate step in pursuing a BS in Information Technology.

Typical occupational areas associated with computer software include applications programming, database management, systems design and analysis, software management, and data communications.

Program Outcomes

We expect that as an Excelsior College associate-level computer software graduate you will be able to

1. Demonstrate a fundamental knowledge of computer architecture, assembly language, data structures, and systems analysis and design.
2. Apply the fundamentals of algebra, trigonometry, and higher mathematics to problem solving in computer software and systems applications. Graduates should be able to apply the concepts of discrete mathematics to technical problem solving in the broad area of computer information systems.
3. Practice good oral and written communications. A graduate should be able to produce technical reports which are neat, grammatically correct, and lucid. In addition, the student should have acquired

CHART 3

Associate in Science in Computer Software

Total Degree Credits Required: 61

AS

Arts and Sciences Component

	Credit Hours
Humanities	9
Social Sciences/History	6
Natural Sciences/Mathematics (must include one course in either Discrete Mathematics or Calculus I)	9
Arts and Sciences Electives (must include a course that satisfies the 3-credit Written English Requirement)	6
Total Arts and Sciences Component	**30**
Information Literacy Requirement	**1**

Computer Software Component

	Credit Hours
Core Requirements	
Introduction to Computers	
Computer Architecture/Assembly Language	
High-Level Structured Language	
Data Structures or Data Communications or Telecommunications	
Systems Analysis and Design	
Computer Software Electives	
Minimum Computer Software Component	**30**

an appreciation and understanding of our cultural heritage, interpersonal relationships, the interrelationship between technology and society, and those values essential for intelligent and discerning judgments.

4. Demonstrate a working knowledge of computer usage in the computer information systems area and competence in at least one high-level computer language.

5. Design and analyze computer software and systems by use of established design and documentation procedures. System reliability and security techniques should be applied to this design and analysis process.

I. Arts and Sciences Component

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

A. Humanities: At least 9 credits must be earned in humanities. Humanities subjects include, but are not limited to, advanced writing, literature, foreign languages, religion, ethics, philosophy, art, and music.

B. 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, psychology, sociology, economics, geography, and history.

C. Natural Sciences/Mathematics: At least 9 credits must be earned in natural sciences/mathematics and include a course in either Discrete Mathematics or Calculus I. Some sample natural science subjects are biology, chemistry, geology, physics, and genetics.

D. Arts and Sciences Electives: A maximum of 6 credits may be earned in arts and sciences electives, including a course (minimum of 3 credits) that satisfies the Written English Requirement (see page 16).

II. Computer Software Component

The Associate in Science in Computer Software requires a minimum of 30 credits in the following areas:

A. Core Requirements:

The following five core requirements must be completed:

- Introduction to Computers
- Computer Architecture/Assembly Language
- High-Level Structured Language
- Data Structures or Data Communications or Telecommunications
- Systems Analysis and Design

B. Computer Software Electives: The remaining credits come from various computing areas as electives. Following is a listing of some sample elective subjects.

Sample Elective Subjects

Software Management

Database Administration
Project Management
Quality Assurance
Software Engineering
Management Information Systems
Human-Computer Interface
Data Warehousing
Data Mining
Information Security
Security Systems

Applications

Application Development
Artificial Intelligence
CAD/CAM
Computer Graphics
Microprocessors
Numerical Methods
Robotics
Simulation and Modeling
Digital Media
Multimedia

Software Techniques/Technology

Communications Software
Hardware/Software Selection
(Information Systems Planning)
Interactive Processing
Structured Programming
Systems Analysis (structured)
Systems Design (structured)

Advanced Technology

Operating Systems
Compiler Design
Computer Networks
Distributive Systems
Expert Knowledge-Based Systems
Natural Language Processing
TCP/IP
UNIX

LINUX
Biometrics
Web Technology
LAN/WAN

III. Information Literacy Requirement

While the Associate in Science in Computer Software degree program does not have a free elective component, students are expected to demonstrate competency in information literacy. See page 16 for more information about information literacy.

Programming Language Cap

The College has placed a 9-credit cap on introductory programming language courses, which include the following languages:

- COBOL
- C
- C++
- C#
- JAVA
- PYTHON

Credit for Vendor Examinations

Excelsior College awards credit for certain examinations from vendors such as Microsoft, CompTIA, ORACLE, SAS, Novell, Cisco, Sun, ICCP and ICDL. Please contact a technology advisor about the possibility of getting college-level credit toward your degree requirements.

Time Limit

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 Associate in Science in Technology with a Computer Technologies specialty has a time limit that may be appealed.

Associate in Science in Electronics Technology

Earning the Associate in Science in Electronics Technology degree can be a goal in itself or an intermediate step in pursuing the BS in Electronics Engineering Technology or Computer Technology.

Within the electronics field, individuals who have AS degrees are usually employed as electronics technicians. They support the professional sector and may be employed in occupational areas that include design and development, manufacturing, testing, field service, and quality assurance.

Program Outcomes

We expect that as an Excelsior College associate-level electronics 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. A significant part of this knowledge should have been obtained from laboratory work with required experimentation, observation, and accurate measurement.
2. Apply the fundamentals of algebra, trigonometry, and higher mathematics to problem solving in electronics areas. Graduates should be able to apply these mathematical concepts to technical problem solving in the broad area of electronics.
3. Practice good oral and written communications. A graduate should be able to produce technical reports which are neat, grammatically correct, and lucid. In addition, the student should have acquired an appreciation and understanding of our cultural heritage, interpersonal relationships, the interrelationship between technology and society, and those values essential for intelligent and discerning judgments.
4. Demonstrate competence in one or more high-level computer languages.
5. Exhibit technical skills and techniques in electronic devices, circuit analysis, digital electronics, electronic communication, electronic control, microprocessors, and systems analysis. This knowledge should have been acquired by an appropriate combination of theory, applied problem solving, and laboratory experiences.

I. Arts and Sciences Component

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 12 credits must be earned in the humanities and social sciences/history distributed as follows:

1. **Communications:** At least 6 credits must be earned in communications courses, including a course (minimum 3 credits) that satisfies the Written English Requirement (see page 16). Courses in speech, written composition, technical writing, or similar courses in either written or oral communication are applicable toward the communications requirement.
2. **Ethics:** At least 3 credits must be earned in ethics. This subject will be classified under Humanities.
3. **Social Sciences/History:** At least 3 credits must be earned in subjects such as sociology, economics, history, psychology, and anthropology.

CHART 4

Associate in Science in Electronics Technology

Total Degree Credits Required: 65

AS

Arts and Sciences Component	Credit Hours
Communications (must include 3-credit Written English Requirement)	6
Ethics	3
Social Sciences/History	3
Total Humanities and Social Sciences/History	**12**
Mathematics (must include Calculus I or Applied Calculus I)	8
Natural Sciences (must include Physics I and II [minimum one lab])	no minimum
Total Natural Sciences/Mathematics	**16**
Total Arts and Sciences Electives	**4**
Total Arts and Sciences Component	**32**
Information Literacy Requirement	**1**

Electronics Technology Component*	Credit Hours
Core Requirements	
Circuit Theory I	
Circuit Theory II	
Electronics I	
Electronics II	
Digital Electronics	
Microprocessors	
Electronic Communications	
Systems	
Computer Programming	
Electronics Technology Electives	
Minimum Electronics Technology Component	**32**

* Seven technology laboratories are required (minimum of four from core subjects).

B. Natural Sciences/Mathematics: At least 16 credits must be earned in subjects such as biology, physics, chemistry, calculus, and geology, with 8 credits earned specifically in mathematics at the level of college algebra and higher. This requirement includes Calculus I or Applied Calculus I and Physics I and II (minimum of one lab).

II. Electronics Technology Component

Completing this component ensures basic college-level competence in the major functional areas of electronics technology.

A. Core Requirements: The following core requirements must be completed:

- Circuit Theory I
- Circuit Theory II
- Electronics I
- Electronics II
- Digital Electronics
- Microprocessors
- Electronics Communications
- Systems *(The systems core requirement may be satisfied with credits from coursework in any of the following subjects: Electromechanical Systems, Computer Architecture, Computer Systems, Microprocessor-Based Robotics, Control Systems, Communications Systems, Microprocessor Systems, Digital Systems.)*
- Computer Programming *(The computer programming core requirement may be satisfied with credits from courses covering any of the languages listed for the information technology degrees on page 21, with the exception of COBOL.)*

B. Electronics Technology Electives: The list of electronics technology electives applicable toward the electronics technology component is divided into two categories. You may select all or a majority of electives from the electronics elective list to satisfy the 32-credit requirement. The computer electives list is relevant for you if you choose to supplement your basic electronics technology background coursework; however, you must select the majority of the technology component electives from the electronics elective list. The faculty will review any course in an area that does not appear on this list for its applicability as an elective in the technology component. By choosing electives carefully, you may design a specialization beyond the core.

Sample Electronics Technology Electives

The following list represent subjects typical of electronics technology electives:

Electronics Electives

Advanced Communications
Advanced Digital Electronics
Advanced Electronics
Antennas
Communications Systems
Computer Architecture
Computer Systems
Control Systems
Data Communications (Hardware)
Digital Process Control
Digital Systems
Electrical Drafting
Electrical Machines
Electromechanical Systems
Electro-Optics
Electro-Optics Measurement
Electronic Devices
Electronic Measurements
Fiber Optics
Industrial/Power Electronics
Instrumentation (Test Equipment)
Introduction to Lasers
Laser Applications
Light Sources and Wave Optics
Microelectronics
Microprocessor-Based Robotics
Microprocessor Systems
Microwave Communications
Microwave Devices
Network Analysis
Power Generation
Robotics
Satellite Communications
Servomechanisms
Special Problems (Project/Design)
Systems Troubleshooting
Telecommunication
Transmission and Distribution Systems
Video Systems

Computer Electives

CAD/CAM
CIM
Computer Graphics
Computer Languages (Software)
Computer Systems (Hardware)
Electromechanical Systems
Reliability/Maintainability
Robotics (Computer-Based)
Statistical Quality Control
Technical Instruction (Techniques)

C. **Laboratory Requirement:** The AS in Electronics Technology degree program requirements include 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 technology component. Of those seven, four must be related to the technology core content areas excluding computer programming. The remaining three laboratories may be in any technology component subjects of your choice, either core courses or electives, excluding computer labs.

III. Information Literacy Requirement

Students are expected to demonstrate competency in information literacy. See page 16 for more information about information literacy.

Time Limit

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 except Circuit Theory I and Circuit Theory II. Please note that course content in such areas is subject to faculty approval. The time limit may be appealed with verification of appropriate and current professional and/or academic experience.

Associate in Science in Nuclear Technology

The Associate in Science in Nuclear Technology degree program is designed primarily for employees of the nuclear industry and the military. Earning the AS in Nuclear Engineering Technology degree can be a goal in itself or an intermediate step in pursuing a BS in Nuclear Engineering Technology degree. Our program emphasizes basic principles of nuclear technology from a technical viewpoint. It is suited for people 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.

Program Outcomes

We expect that as an Excelsior College associate-level 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. Topics in the physical sciences should include conservation laws, rate processes, atomic and nuclear physics, and the fundamentals of thermodynamics. A significant part of this knowledge should have been obtained from laboratory work with required experimentation, observation, and accurate measurement.

2. Apply the fundamentals of algebra, trigonometry, and higher mathematics to problem solving in nuclear areas. Graduates should be able to apply these concepts to technical problem solving in the broad area of nuclear technology.

3. Practice good oral and written communications. A graduate should be able to produce technical reports which are neat, grammatically correct, and lucid. In addition, the student should have acquired an appreciation and understanding of our cultural heritage, interpersonal relationships, the interrelationship between technology and society, and those values essential for intelligent and discerning judgments.

4. Demonstrate competence in at least one high-level computer language.

5. 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. This knowledge should have been acquired by an appropriate combination of theory, applied problem solving, and laboratory experiences.

6. 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.

7. 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.

I. Arts and Sciences Component

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

A. Humanities: At least 9 credits must be earned, including a course (minimum 3 credits) that satisfies the Written English Requirement (see page 16). The remaining 6 credits must be earned in humanities subjects other than writing. These subjects include, but are not limited to, advanced writing, literature, foreign languages, religion, philosophy, ethics, art, and music.

B. Social Sciences/History: At least 6 credits must be earned in subjects such as sociology, economics, history, psychology, and anthropology.

CHART 5

Associate in Science in Nuclear Technology

Total Degree Credits Required: 61

AS

Arts and Sciences Component

	Credit Hours
Written English Requirement	3
Humanities	6
Social Sciences/History	6
Mathematics and Natural Sciences ■ Mathematics (minimum of 7 credits to include Calculus I or Applied Calculus I) ■ Natural Sciences (to include Physics I, Physics II, and Chemistry [one lab in Physics and one lab in Chemistry])	15
Total Arts and Sciences Component	**30**
Information Literacy Requirement	**1**

Nuclear Technology Component

	Credit Hours
Core Requirements	
Electrical Theory	
Computer Applications	
Health Physics/Radiation Protection	
Radiation Measurement Lab	
Plant Systems Overview	
Reactor Core Fundamentals	
Atomic Physics	
Nuclear Physics	
Nuclear Technology Electives	
Total Nuclear Technology Component	**30**

Note: Three labs are required (chemistry, physics, and radiation measurement).

C. Natural Sciences/Mathematics: At least 15 credits must be earned in natural sciences/mathematics, with 7 credits earned specifically in mathematics at the level of college algebra and higher. This requirement includes Calculus I or Applied Calculus I, Physics I and II (one lab minimum), and Chemistry (with lab).

II. Nuclear Technology Component

A. Core Requirements: The nuclear technology component ensures basic college-level competence in the major functional areas of nuclear technology. The following core requirements must be completed:

- Electrical Theory
- Computer Applications
- Health Physics/Radiation Protection
- Radiation Measurement Lab
- Plant Systems Overview
- Reactor Core Fundamentals
- Atomic Physics
- Nuclear Physics

B. Nuclear Technology Electives: You may select electives from the following list to complete remaining credits for your nuclear technology component. They have been categorized in occupational specialty areas to assist you in designing your program. The faculty will review any nuclear technology courses whose titles do not appear on this list for their applicability as electives in the nuclear technology component. Through your choice of electives, you may design a specialization beyond the core.

Sample Nuclear Technology Electives

The following list represent subjects typical of nuclear technology electives:

Reactor Operator

Advanced Reactor Theory
Control Systems (electromechanical)
Instrument and Controls
Nondestructive Testing
Nuclear Welding
Print Reading
Radio Chemistry
Reactor Control Systems
Reactor Kinetics
Reactor Safety–Mitigating Core Damage
Shielding
Simulator Training
Systems (BWR, PWR)
Transient Analysis

Quality Assurance Technician

Measurements
Codes and Standards
Regulations
Quality Assurance/Quality Control
Computer Programming
Computer Systems
Database Management
Probabilistic Reliability Analysis
Technical Specifications
Engineering Drawing/Blueprint Reading

Health Physics Technologist

Radiation Biology
Radiation Effects/Interaction with Matter
Advanced Instrumentation
Instrument Calibration
Emergency Planning
Metrology (instrument calibration)

Chemistry Technician

Water Chemistry
Corrosion Chemistry
Instrumental Analysis (methods)
Analytical Chemistry
Radiochemistry
Advanced Computer Analysis (Chemistry)
Physical Chemistry

Instrumentation and Controls Technician

Electronics
Advanced Electronics
Microprocessor Systems
Microprocessor Programming
Digital Electronics
Industrial Electronics
Process Control Theory
Scaling (mathematical)
Metrology (instrument calibration)

Mechanical Technician

Filters and Resin Beds
Heat Exchangers
Machinery Alignment
Pipe Erosion/Corrosion
Pipe Supports/Constraints
Precision Machine Tools and Instrumentation
Pressure Vessels and Piping
Pumps and Valves
Steam Generators
Tool Calibration
Tube Inspection and Repair
Valve Operators
Waste Processing (Rad and/or Industrial)

C. Laboratory Requirement: The AS degree program requirements include a minimum of three laboratories. These must be in physics, chemistry, and radiation measurement. The Nuclear Power Prototype School (26 weeks) satisfies the radiation measurement laboratory requirement.

III. Information Literacy Requirement

Students are expected to demonstrate competency in information literacy. See page 16 for more information about information literacy.

Time Limit

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. Credits in the area of nuclear materials can apply only if completed more recently than January 1970.

Credit for Navy Nuclear Power School (Enlisted)

The Excelsior College faculty has conducted a review of the Basic Nuclear Power course at the Navy Nuclear Power School for enlisted personnel and will apply degree credits to students who have completed the school's curriculum since 1961. The credits may be applied to the requirements for the AS in Nuclear Technology degree as follows:

Credits		Requirements Fulfilled
2	College Algebra	Natural Sciences/Mathematics Elective
2	Trigonometry	Natural Sciences/Mathematics Elective
3	Physics	Physics I (without lab)
3	Physics	Physics II (without lab)
3	Atomic Physics	Atomic Physics
3	Nuclear Physics	Nuclear Physics
3	Chemistry	Chemistry (without lab)
2	Thermodynamics	Thermodynamics
2	Radiological Fundamentals	Health Physics/Radiation Protection
3	Reactor Technology	Nuclear Technology Electives
3	Heat Transfer and Fluids	Nuclear Technology Electives
2	Nuclear Materials	Nuclear Technology Electives

Credits for Operator Specialized Training	
2 Machinist's Mate	Electrical Theory
2 Electronics Technician	Mechanical Theory
2 Electrician's Mate	Mechanical Theory
2 Interior Communications	Mechanical Theory

Credit for Nuclear Propulsion Plant Operators (Prototype)

The Excelsior College faculty has conducted a review of the Nuclear Propulsion Plant Operator courses at the Prototype School for enlisted personnel and will apply degree credits to students who have completed the school's curriculum since January 1990. The credits may be applied to the requirements for the AS in Nuclear Technology degree as follows:

Nuclear Propulsion Plant Operator Reactor: Electronics Technician Rate

3 credits in Oral Communications
3 credits in Industrial Safety
3 credits in Basic Health Physics
3 credits in Introduction to Power Systems
8 credits in Reactor Systems Practicum
3 credits in Troubleshooting Reactor Power Systems
Radiation measurement laboratory is satisfied.

Nuclear Propulsion Plant Operator Electrical: Electrician's Mate Rate

3 credits in Oral Communications
3 credits in Industrial Safety
3 credits in Basic Health Physics
3 credits in Introduction to Power Systems
6 credits in Electrical Systems Practicum
3 credits in Troubleshooting Electrical Systems
Radiation measurement laboratory is satisfied.

Nuclear Propulsion Plant Operator Mechanical: Machinist's Mate Rate

3 credits in Oral Communications
3 credits in Industrial Safety
3 credits in Basic Health Physics
3 credits in Introduction to Power Systems
8 credits in Mechanical Systems Practicum
3 credits in Troubleshooting Mechanical Systems
Radiation measurement laboratory is satisfied.

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 in health physics/radiation protection. The remaining 22 credits will be applied toward the nuclear engineering technology electives. Credit will be awarded after an official transcript is received from the NRRPT in Kennewick, Washington.

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
- Licensed Reactor Operator
- Non-licensed Reactor Operator
- Engineering Support Technician
- Radiation Protection Technician
- Chemistry Technician
- Electrical Maintenance Technician
- Instrumentation and Controls Technician
- Mechanical Maintenance Technician
- Instructor Training

Note: For more information about this source of credit, please contact the School of Business and Technology.

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.

Program Outcomes

We expect that as an Excelsior College associate-level 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. A significant part of this knowledge should have been obtained from laboratory work with required experimentation, observation, and accurate measurement.
2. Apply the fundamentals of algebra, trigonometry, and higher mathematics to problem solving in technology areas.
3. Practice good oral and written communications. A graduate should be able to produce technical reports which are neat, grammatically correct, and lucid. In addition, the student should have acquired an appreciation and understanding of our cultural heritage, interpersonal relationships, the interrelationship between technology and society, and those values essential for intelligent and discerning judgments.
4. Demonstrate a working knowledge of computer usage in the technology area and develop competence in at least one high-level computer language.

I. Arts and Sciences Component

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 (see page 16). 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.

C. Social Sciences/history: At least 3 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.

F. Arts and Sciences Electives: The remaining 6 credits needed to satisfy the 30-credit requirement may be earned in any area of the arts and sciences.

II. Technology Component

This degree program allows you to earn a technology degree with a specialty from one of nine technical specialty areas. A technical specialty 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 nine technical specialty areas are:

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

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

A. Technical Specialty: At least 18 credits must be earned in a chosen technical specialty. See pages 34–38 for a list of sample technical specialty subjects for each concentration.

B. Technical Electives: A maximum of 12 credits in technical electives may be applied toward the Associate in Science in Technology. See pages 34–38 for a list of sample technical electives for each concentration.

Students enrolled in the Associate in Science in Technology degree program are required to complete a course or exam in computer applications or programming as part of their technical electives.

Note: Refer to pages 34–38 to review sample technical specialty and technical elective courses for each technical specialty area.

III. Information Literacy Requirement

While the Associate in Science in technology degree program does not have a free elective component, students are expected to demonstrate competency in information literacy. See page 16 for more information about information literacy.

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

Time Limit

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. The time limit may be appealed with verification of appropriate and current professional and/or academic experience showing that electronics/computer knowledge is current.

CHART 6

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
Social Sciences/History	3
Natural Sciences	6
Mathematics (at the level of College Algebra and above)	6
Arts and Sciences Electives	6
Total Arts and Sciences Component	**30**
Information Literacy Requirement	**1**

Technology Component

	Credit Hours
Technical Specialty Areas **At least 18 credits must be earned in a chosen technical specialty.** **See pages 34–38 for sample technical specialty and technical elective subjects for each specialty area.** Chemical Technologies Computer Technologies Electromechanical Technologies Electronic/Instrumentation Technologies Manufacturing Technologies Mechanical/Welding Technologies Nuclear Technologies Optical Technologies Power Plant Technologies	18
Technical Electives including one course in computer applications or programming	12
Total Technology Component	**30**

Associate in Science in Technology and Bachelor of Science in Technology

Sample Technical Specialty and Technical Electives for Each Technical Specialty Area

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 specialty and the opportunity to branch out into different areas of technology education to round out the program.

The following charts contain typical technical specialty subjects and technical elective subjects for each of the nine specialties. 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.

Chemical Technologies

A technical discipline centered around the design, construction, and maintenance of chemical production or environmental control facilities.

Typical Technical Specialty Subjects

- Statics
- Thermodynamics
- Fluid Processes
- Issues in the Chemical Industry
- Materials
- Instrumentation and Control
- Chemical Unit Processes I
- Chemical Unit Processes II
- Heat Transfer

Typical Technical Elective Subjects

- Strength of Materials
- Chemical Process Instrumentation
- Separation Technology
- Chemical Process Thermodynamics
- Chemical Reactor Technology
- Chemical Process Design
- Engineering Economics
- Environmental Unit Processes
- Pollution Control Technology
- Polymer Processing
- Plant Maintenance Technology
- Blueprint Reading
- Industrial Safety
- Computer Programming
- Engineering Drawing
- Electrical Theory
- CAD

Computer Technologies

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

Typical Technical Specialty 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

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 Technical Specialty Subjects

- Applied Circuit Theory
- Applied Mechanics
- Digital Systems
- Electromechanical Devices and Mechanisms
- Electronic Devices
- Machine Components and Mechanisms
- Microprocessors
- Pneumatic and Hydraulic Systems
- Heat Transfer
- Applied Thermodynamics
- Machine Processes

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

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 Technical Specialty Subjects

- AC Circuit Theory
- Applied 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

Manufacturing Technologies

A technical discipline centered around the design, development, and construction of an economically justifiable process by which a product will be produced, thus bridging the gap between product design and full production.

Typical Technical Specialty Subjects

- Applied Thermodynamics
- Fluid Systems
- Manufacturing Processes
- Materials Technology
- Production Control
- Metrology
- Statics
- Machine Processes
- Dynamics
- Applied Dynamics
- Quality Control

Typical Technical Elective Subjects

- Strength of Materials
- Machine Elements
- Computer Aided Manufacturing
- Computer Control Systems
- Design of Machine Elements
- Machine Tools
- Manufacturing Analysis
- Materials Technology II
- Robotics Technology
- Statistical Quality Control
- Plant Layout
- CNC Machine Tools
- Programmable Controllers
- Tool Engineering
- Nontraditional Manufacturing Processes
- Manufacturing Process Design
- Plastics Processing
- Time and Motion Study
- Engineering Economics
- Blueprint Reading
- Industrial Safety
- CAD
- Computer Programming
- Electrical Theory
- Engineering Drawing
- Instrumentation

Mechanical/Welding Technologies

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

Typical Technical Specialty 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

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

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 Technical Specialty 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
- Electrical Theory
- Welding

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

Optical Technologies

A technical discipline centered around the design, development, manufacture, and testing of equipment for transmission of information and power-utilizing laser technology in conjunction with optical components.

Typical Technical Specialty Subjects

- AC Circuit Theory
- DC Circuit Theory
- Digital Circuits
- Electronic Devices
- Introduction to Lasers
- Optoelectronics
- Electro-Optics Measurement
- Laser Applications
- Control Systems
- Optical Design
- Optical Communication

Typical Technical Elective Subjects

- Electrical Instrumentation
- Electromagnetics
- Light Sources
- Fiber Optics
- Fourier Optics
- Digital Image Processing
- Quantum Electronics
- Blueprint Reading
- Industrial Safety
- Computer Programming
- CAD
- Machine Processes
- Engineering Drawing

Power Plant Technologies

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

Typical Technical Specialty Subjects

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

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
- Heat Transfer
- Fluids
- 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 Economy

Baccalaureate Degree Programs in Technology

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 technical specialties.

Program Outcomes

We expect that as an Excelsior College baccalaureate-level 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 technology areas.
3. Practice good oral and written communications. A graduate should be able to produce technical reports which are neat, grammatically correct, and lucid. In addition, the student should have acquired an appreciation and understanding of our cultural heritage, interpersonal relationships, the interrelationship between technology and society, and those values essential for intelligent and discerning judgments.
4. Demonstrate a working knowledge of computer usage in the technology area. In addition to developing competence in at least one high-level computer language, the graduate should be able to use the computer in technical problem solving.
5. Exhibit technical skills and techniques in the chosen Technical Specialty area. This knowledge should have been acquired by an appropriate combination of theory and applied problem solving.

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.

CHART 7

Bachelor of Science in Technology

Total Degree Credits Required: 120

BS

Arts and Sciences Component

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

Technology Component

	Credit Hours
Technical Specialty Areas **24 credits must be earned in one of the technical specialty areas in the following list.** **See pages 34-38 for sample technical specialty and technical elective subjects for each specialty area.** Chemical Technologies Computer Technologies Electromechanical Technologies Electronic/Instrumentation Technologies Manufacturing Technologies Mechanical/Welding Technologies Nuclear Technologies Optical Technologies Power Plant Technologies	24
Technical Electives (must include one course in computer language/programming)	24
Total Technology Component **15 credits must be upper level**	**48**

Free Elective Component

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

I. Arts and Sciences Component

The Bachelor of Science in Technology requires a minimum of 60 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 (see page 16). Courses in speech, technical writing, or a similar course either in written or oral communications are applicable toward the communications requirement.

B. Humanities: At least 6 credits must be earned in humanities, including a course in 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 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. Humanities and Social Sciences/History Electives: At least 6 credits must be earned in humanities and social sciences/history electives. Any of the subjects listed in communications, humanities, or social sciences/history will apply toward this requirement.

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

F. Mathematics: At least 12 credits must be earned in mathematics at the level of college algebra and above.

G. 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

This degree program allows you to earn a technology degree with a specialty from one of nine technical specialty areas. A technical specialty 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 nine technical specialty areas are:

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

Note: When you graduate from this degree program, your diploma will state "Bachelor of Science in Technology" without the specialization area. However, the specialization area (e.g., manufacturing) will appear on your official transcript, which would be sent to employers and graduate schools.

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

A. Technical Specialty: At least 24 credits must be earned in a chosen technical specialty. See pages 34–38 for a list of sample technical specialty subjects for each concentration.

B. Technical Electives: A maximum of 24 credits in technical electives may be applied toward the Bachelor of Science in Technology. One course in computer language/programming must be completed as part of this requirement. See pages 32–36 for a list of sample technical electives for each concentration.

Note: Refer to pages 34–38 to review sample technical specialty and technical elective courses for each technical specialty area.

C. Level Requirement: Of the 48 credits required for the technology component, at least 15 credits must be upper level. 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

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. See page 16 for more information about information literacy.

Time Limit

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. The time limit may be appealed with verification of appropriate and current professional and/or academic experience.

Bachelor of Science in Computer Technology

The Bachelor of Science in Computer Technology degree program is designed primarily for adults already working in industry, government, and the military. It is intended to enhance job skills and improve opportunities for career advancement. The duties of a technologist are broad and varied, encompassing technical aspects as well as the application of engineering principles. Typical occupational areas where computer technologists are employed include system design and development, installation and maintenance, applications, and sales.

Program Outcomes

We expect that as an Excelsior College baccalaureate-level computer 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. A significant part of this knowledge should have been obtained from laboratory work with required experimentation, observation, and accurate measurement.
2. Apply the fundamentals of algebra, trigonometry, and higher mathematics to problem solving in electronics areas. Graduates should be able to apply the concepts of calculus to technical problem solving in the broad area of computer technology.
3. Practice good oral and written communications. A graduate should be able to produce technical reports which are neat, grammatically correct, and lucid. In addition, the student should have acquired an appreciation and understanding of our cultural heritage, interpersonal relationships, the interrelationship between technology and society, and those values essential for intelligent and discerning judgments.
4. Demonstrate a working knowledge of computer usage in the computer technology area. In addition to developing competence in one or more high-level computer languages, the graduate should be able to use the computer in technical problem solving.
5. Exhibit technical skills and techniques in electronic devices, circuit analysis, digital electronics, electronic communication, electronic control, microprocessors, and systems analysis. This knowledge should have been acquired by an appropriate combination of theory, applied problem solving, and laboratory experiences.
6. Design computer devices and systems by use of established design procedures. This design process should incorporate the use of manuals, handbooks, material/equipment specifications, and computers where applicable.

I. Arts and Sciences Component

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/History: At least 24 credits must be earned in the humanities and social sciences/history and distributed as follows:

1. **Communications:** At least 9 credits must be earned in communications courses, including a course (minimum 3 credits) that satisfies the Written English Requirement (see page 16). 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.

CHART 8

Bachelor of Science in Computer Technology

Total Degree Credits Required: 124

BS

Arts and Sciences Component

	Credit Hours
Communications (must include 3-credit Written English Requirement)	9
Ethics	3
Social Sciences/History	6
Humanities and Social Sciences/History Electives	6
Mathematics and Natural Sciences ■ Mathematics (minimum of 12 credits at the level of College Algebra and above including Calculus I and II) ■ Natural Sciences (must include Physics I and Physics II and at least one physics lab)	24
Arts and Sciences Electives	12
Total Arts and Sciences Component	**60**

Computer Technology Component*

	Credit Hours
Core Requirements Circuit Theory I Circuit Theory II Electronics I Electronics II Digital Electronics Microprocessors Systems Electronic Communications Computer Languages (two required)	
Computer Technology Electives	
Total Technology Component **16 credits must be upper level**	**48**

Free Elective Component

	Credit Hours
Free Elective Component (must include 1-credit Information Literacy Requirement)	**16**

* Seven technology laboratories are required (minimum of four from core subjects).

3. **Social Sciences/History:** At least 6 credits must be earned in subjects such as sociology, economics, history, psychology, and anthropology.

4. **Humanities and Social Sciences/History Electives:** The remaining 6 credits may be earned in any combination of social sciences/history subjects and humanities subjects. Humanities subjects include, but are not limited to, advanced writing, literature, foreign languages, religion, philosophy, art, and music.

B. Mathematics: At least 12 credits must be earned in math at the level of college algebra and above and include Calculus I and Calculus II. Courses in differential equations and discrete math are highly recommended.

C. Natural Sciences: At least 12 credits must be earned in natural sciences including Physics I, Physics II, and at least one physics lab. Chemistry is highly recommended. Other natural sciences subjects include, but are not limited to, biology and geology.

D. 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. Computer Technology Component

The computer technology component ensures college-level competence in the major functional areas of computer technology.

A. Core Requirements: The following core requirements must be completed:

- Circuit Theory I
- Circuit Theory II
- Electronics I
- Electronics II
- Digital Electronics
- Microprocessors
- Electronic Communications
- Systems *(The systems core requirement may be satisfied by completing coursework in computer architecture, microprocessor systems, or computer systems.)*
- Computer Languages—two required *(The computer languages core requirement may be satisfied with credits from coursework in any of the languages listed for the Information Technology degrees. One must be a high-level structured language.)*

B. Computer Technology Electives: You may select electives from the following list to satisfy the 48-credit requirement. The faculty will review any course not on this list for its applicability as an elective in the computer technology component. By choosing electives carefully, you may design a specialization beyond the core.

Computer Technology Electives
Advanced Digital Electronics
CAD/CAM
Computer Graphics
Computer Integrated Manufacturing (CIM)
Computer Languages (Software)
Computer Systems (Hardware)
Database Concepts
Data Communications (Hardware)
Electrical Drafting
Electromechanical Systems
Electronic Measurements
Microprocessor Interfacing
Microprocessor Systems
Operating Environment
Reliability/Maintainability
Robotics (Computer-Based)
Special Problems (Project/Design)
Software Engineering
Statistical Quality Control
Systems Troubleshooting/Debugging/Analysis Maintenance

C. Laboratory Requirement: The BS in Computer Technology degree program requires at least eight laboratories. One physics laboratory is required in the natural sciences/mathematics area, and the remaining seven must be in the computer technology component. Of these seven, four must be related to the computer technology core content areas, excluding computer programming. The remaining three laboratories may be in any computer technology component subjects, either core courses or electives, excluding computer laboratories.

D. Level Requirement: Of the 48 credits required for the computer technology component, at least 16 must be upper level and primarily in the computer area. 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 sat-

isfy upper-level requirements. The acceptance of coursework credit toward the upper-level requirement is subject to faculty approval.

III. Free Elective Component

The computer 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. See page 16 for more information about information literacy.

You may earn the remaining 15 credits in any field of college study, including professional or technical subjects, as well as in the arts and sciences. Credit is not granted for physical education activity courses.

Time Limit

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 except Circuit Theory I and Circuit Theory II. 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.

Credit for ICCP and Vendor Examinations

If you have taken examinations through the Institute for Certification of Computing Professionals (ICCP) or certain vendors (e.g., Microsoft, CompTIA, and Novell), please contact a technology advisor about the possibility of receiving college-level credit toward your degree requirements.

Second Degree Restrictions

Because of the similar core requirements in electronics and computer technology, no student is permitted to earn both a BS in Electronics Engineering Technology and a BS in Computer Technology from Excelsior College. If you already hold a baccalaureate degree in electrical engineering, computer engineering, or computer systems technology from another institution, you will not subsequently be awarded either the BS in Electronics Engineering Technology or BS in Computer Technology by Excelsior College.

Bachelor of Science in Electronics Engineering Technology

An individual who has a Bachelor of Science in Electronics Engineering Technology degree is typically employed as an electronics 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 electronics technologists are employed include product design and development, manufacturing, field engineering, systems supervision, and quality assurance.

The baccalaureate degree program in electronics engineering technology is accredited by the Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET). TAC of ABET is a specialized accrediting agency recognized by the U.S. Secretary of Education.

Program Outcomes

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

1. Demonstrate a fundamental knowledge of natural sciences including 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 electronics 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.
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 electronics technology discipline.

7. Exhibit technical competency in electronics, circuit analysis, digital electronics, electronic communications, microprocessors, and systems.
8. Integrate knowledge of the functional areas of electronics technology.
9. Demonstrate the ability to analyze, apply design concepts, and implement systems as appropriate to electronics 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.

I. Arts and Sciences Component

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 distributed as follows:

1. **Communications:** At least 9 credits must be earned in communications courses, including a course (minimum 3 credits) that satisfies the Written English Requirement (see page 16). 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.
3. **Social Sciences/History:** At least 6 credits must be earned in subjects such as sociology, economics, history, psychology, and anthropology.
4. **Humanities and Social Sciences/History Electives:** The remaining 6 credits may be earned in any combination of social sciences/history subjects and humanities subjects. Humanities subjects include but are not limited to advanced writing, literature, foreign languages, religion, philosophy, art, and music.

B. Mathematics: At least 12 credits must be earned in math at the level of College Algebra and above and include Calculus I, Calculus II, and Differential Equations.

C. Natural Sciences: At least 12 credits must be earned in natural sciences and include Physics I, Physics II, and at least one physics lab. Chemistry is highly recommended. Other natural sciences subjects include, but are not limited to, biology and geology.

D. 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. Electronics Engineering Technology Component

The electronics engineering technology component ensures college-level competence in the major functional areas of electronics engineering technology.

A. Core Requirements: The following core requirements must be completed:

- Circuit Theory I
- Circuit Theory II
- Electronics I
- Electronics II
- Digital Electronics
- Microprocessors
- Electronic Communications
- Systems *(The systems core requirement may be satisfied with credits from coursework in any of the following subjects: computer architecture, microprocessor systems, electromechanical systems, computer systems, control systems, communications systems, microprocessor systems, digital systems, or microprocessor-based robotics.)*
- 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, with the exception of COBOL.)*

- Integrated Technology Assessment
  (All BS in Electronics Engineering Technology students must complete our ELEC 495: Integrated Technology Assessment course. This 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 the Electronics Engineering Technology degree program outcomes. These learning statements must be supported by documented evidence demonstrating that the outcomes have been met.)

B. Electronics Engineering Technology Electives: You may select electives from the following list to apply towards your Electronics Engineering Technology Component. The electives currently accepted toward the electronics engineering technology component are placed in two categories. You may select either all or a majority of electives from the electronics electives list. The computer electives list is relevant for you if you choose to supplement your electronics technology background with computer technology coursework. However, you must select the majority of the electronics engineering technology component electives from the electronics electives list. The faculty will review any course not on this list for its applicability as an elective in the technology component. By choosing electives carefully, you may design a specialization beyond the core.

Electronics Electives

Advanced Communications
Advanced Digital Electronics
Advanced Electronics
Antennas
Communications Systems
Computer Architecture
Computer Systems
Control Systems
Data Communications (Hardware)
Digital Process Control
Digital Systems
Electrical Drafting
Electrical Machines
Electromechanical Systems
Electro-Optics
Electro-Optics Measurement
Electronic Devices
Electronic Measurements
Fiber Optics
Industrial/Power Electronics
Instrumentation (Test Equipment)
Introduction to Lasers
Laser Applications
Light Sources and Wave Optics
Microelectronics
Microprocessor-Based Robotics
Microprocessor Systems
Microwave Communications
Microwave Devices
Network Analysis
Opto-Electronics
Power Generation
Robotics
Satellite Communications
Servomechanisms
Special Problems (Project/Design)
Systems Troubleshooting
Telecommunications
Transmission and Distribution Systems
Video Systems

Computer Electives

CAD/CAM
CIM
Computer Graphics
Computer Languages (Software)
Computer Systems (Hardware)
Electromechanical Systems
Reliability/Maintainability
Robotics (Computer-Based)
Statistical Quality Control
Technical Instruction (Techniques)

C. Laboratory Requirement: The BS degree program requirements include 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 electronics engineering technology component. Of those seven, four must be related to the electronics engineering technology core content areas, excluding computer programming. The remaining three laboratories may be in any technology component subjects, either core courses or electives, excluding computer labs.

D. Level Requirement: Of the 48 credits required for the electronics engineering technology component, at least 16 must be upper level and primarily in the electronics area. 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 approval.

CHART 9

Bachelor of Science in Electronics Engineering Technology

Total Degree Credits Required: 124

BS

Arts and Sciences Component

	Credit Hours
Communications (must include 3-credit Written English Requirement)	9
Ethics	3
Social Sciences/History	6
Humanities and Social Sciences/History Electives	6
Mathematics and Natural Sciences ■ Mathematics (minimum of 12 credits at the level of College Algebra and above including Calculus I and II and Differential Equations) ■ Natural Sciences (must include Physics I and Physics II and at least one physics lab)	24
Arts and Sciences Electives	12

Total Arts and Sciences Component — **60**

Free Elective Component

	Credit Hours
Free Elective Component (must include 1-credit Information Literacy Requirement)	**16**

Electronics Engineering Technology Component*

	Credit Hours
Core Requirements Circuit Theory I Circuit Theory II Electronics I Electronics II Digital Electronics Microprocessors Electronic Communications Systems Computer Programming Integrated Technology Assessment	
Electronics Engineering Technology Electives	

Total Technology Component
16 credits must be upper level — **48**

* Seven technology laboratories are required (minimum of four from core subjects).

III. Free Elective Component

The electronics 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. See page 16 for more information about information literacy.

You may earn the remaining 15 credits in any field of college study, including professional or technical subjects, as well as in the arts and sciences. Credit is not granted for physical education activity courses.

Course Materials Policy

The faculty requires that students submit course materials for all math, science, and technology component courses. 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 by TAC of ABET (Technology Accreditation Commission of the Accreditation Board for Engineering and Technology) 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

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 except Circuit Theory I and Circuit Theory II. 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.

Second Degree Restrictions

Because of the very similar core requirements in electronics and computer technology, no student is permitted to earn both a BS in Electronics Engineering Technology and a BS in Computer Technology from Excelsior College. If you already hold a baccalaureate degree in electrical engineering, computer engineering, or computer systems technology from another institution, you will not subsequently be awarded either the BS in Electronics Engineering Technology or BS in Computer Technology by Excelsior College.

Bachelor of Science in Information Technology

Program Outcomes

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

1. Demonstrate a fundamental knowledge of computer architecture, object oriented programming, database concepts, data communications, operating systems, computer security, and project management.
2. Apply the fundamentals of algebra, trigonometry, and higher mathematics to problem solving in information technology and systems applications. Graduates should be able to apply the concepts of discrete mathematics to technical problem solving in the broad area of information technology.
3. Practice good oral and written communications. A graduate should be able to produce technical reports that are neat, grammatically correct, and lucid. In addition, the student should have acquired an appreciation and understanding of our cultural heritage, interpersonal relationships, the interrelationship between technology and society, and those values essential for intelligent and discerning judgments.
4. Demonstrate a working knowledge of computer usage in the information technology area. In addition to developing competence in one or more high-level computer languages, the graduate should be able to use the computer in technical problem solving.
5. Build on the foundation of the Information Technology core sequence of courses in order to apply the concepts and skills of one of several possible areas of concentration to contemporary organizational information technology needs. Areas of concentration include information security, network management, object-oriented software development, and video game and simulation development.

I. Arts and Sciences Component

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 3 credits must come from a course that satisfies the Written English Requirement (see page 16).

B. Humanities: At least 9 credits must be earned in humanities to include a course in 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 a course in discrete mathematics and one course from the following list:

- Calculus I
- Statistics and Probability
- Quantitative Methods
- Finite Math
- Mathematical Logic

Some sample natural science subjects are: biology, chemistry, geology, physics, and genetics.

E. Arts and Sciences Electives: A maximum of 27 credits may be earned.

II. Information Technology Component

The Bachelor of Science in Information Technology requires a minimum of 45 credits in the area of information technology distributed as follows:

A. Core Requirements: The following core requirements must be met:

- Computer Architecture/Assembly Language
- Object-Oriented Programming
- Database Concepts
- Data Communications and Networking
- Operating Systems
- Overview of Computer Security
- Project Management

B. Concentration Requirements: One of the following 7 concentrations must be declared. See the chart on the following page for specific requirements for each Information Technology concentration:

- Information Security
- Network Management
- Object-Oriented Software Development
- Video Game and Simulation Development
- General Option

Information Technology Concentration Requirements

All BS in Information Technology students must complete our IT 495: Integrated Technology Assessment course. This 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 the Information Technology degree program outcomes. These learning statements must be supported by documented evidence demonstrating that the outcomes have been met.

Information Security (minimum of 15 credits)

Network Security
Web Security
Computer Forensics
Information Assurance Management
Integrated Technology Assessment

Network Management (minimum of 15 credits)

Advanced Networking
Network Operating Systems
Wireless Technology
Telecommunication Management
Integrated Technology Assessment

Object-Oriented Software Development (minimum of 15 credits)

Advanced Object-Oriented Programming I
Advanced Object-Oriented Programming II
Data Structures and Algorithms
Software Systems Analysis and Design
Integrated Technology Assessment

CHART 10

Bachelor of Science in Information Technology

Total Degree Credits Required: 120 Credits

BS

Arts and Sciences Component

	Credit Hours
Written English Requirement	3
Ethics	3
Humanities	6
Social Sciences/History	9
Natural Sciences/Math (must include 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	27 max.
Total Arts and Sciences Component	**60**

Free Elective Component

	Credit Hours
Free Elective Component (must include 1-credit Information Literacy Requirement)	**15**

Information Technology Component

Core Requirements

All 7 core requirement must be met:

Computer Architecture
Object-Oriented Programming
Database Concepts
Data Communications and Networking
Operating Systems
Overview of Computer Security
Project Management

Concentration Requirements

One of the following concentrations must be declared (see pages 50 and 52 for concentration requirements):

Information Security
Network Management
Object-Oriented Software Development
Video Game and Simulation Development
General Option

Note: Each concentration requires the completion of IT 495: Integrated Technology Assessment

Total Technology Component **15 credits must be upper level**	**45**

Video Game and Simulation Development (Courses to be taken through the Game Institute™.) (minimum of 15 credits)

Advanced C++ Programming for Game Developers
Graphics Programming with DirectX9
Advanced Graphics Programming with DirectX9
Graphics Programming with OpenGL
Artificial Intelligence
Integrated Technology Assessment

General Option

Integrated Technology Assessment
Approved IT Electives

C. Level Requirement: Of the 45 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

The Bachelor of Science in Information Technology allows room for up to 15 credits in free electives. Applied to this component is the one credit for Excelsior College's Information Literacy Requirement. See page 16 for more information about information literacy.

You may earn the remaining 14 credits in any field of college study, including professional or technical subjects as well as in the arts and sciences. Credit is not granted for physical education activity courses.

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:

COBOL	JAVA	PYTHON
C	C++	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. Please contact a technology advisor about the possibility of getting college-level credit toward your degree requirements.

Game Institute™ Courses

Students who are interested in the Video Game and Simulation Development concentration must complete their concentration requirements through the Game Institute™. For more information about these courses, please visit the Game Institute™ Web site at: www.gameinstitute.com.

Time Limit

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. 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 by TAC of ABET (Technology Accreditation Commission of the Accreditation Board for Engineering and Technology) 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 baccalaureate degree program in nuclear engineering technology is accredited by the Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET). TAC of ABET is a specialized accrediting agency recognized by the U.S. Secretary of Education.

Program Outcomes

We expect that as an Excelsior College baccalaureate-level nuclear engineering technology graduate you 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 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.
6. Demonstrate a working knowledge of computer usage, including knowledge of one or more computer languages or documentation of the use of one or more computer software packages for technical problem solving appropriate to the nuclear technology discipline.
7. Exhibit 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 radiation protection procedures; currently applicable rules and regulations; maintenance, control and quality assurance; and a commitment to quality, timeliness, and continuous improvement.
9. Integrate knowledge of the functional areas of nuclear engineering technology in the 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 relationship 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.

I. Arts and Sciences Component

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 distributed as follows:

1. **Communications:** At least 9 credits must be earned in communications courses, including a course (minimum 3 credits) that satisfies the Written English Requirement (see page 16). 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.

3. **Social Sciences/History:** At least 6 credits must be earned in such subjects as sociology, economics, history, psychology, and anthropology.

4. **Humanities and Social Sciences/History Electives:** The remaining 6 credits may be earned in any combination of social sciences/history subjects and humanities subjects. Humanities subjects include, but are not limited to, advanced writing, literature, foreign languages, religion, philosophy, art, and music.

B. Mathematics: At least 12 credits must be earned in math at the level of College Algebra and above and include Calculus I and Calculus II.

C. Natural Sciences: At least 12 credits must be earned in natural sciences and include Chemistry with lab, Physics I, Physics II (at least one physics lab), Atomic Physics, Nuclear Physics, and Thermodynamics.

D. 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

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
- Computer Applications
- Materials
- Nuclear Materials
- Health Physics/Radiation Protection
- Radiation Measurement Lab
- Plant Systems Overview
- Reactor Core Fundamentals
- Fluids
- Heat Transfer
- Integrated Technology Assessment Requirement (*All BS in Nuclear Engineering Technology students must complete our NUC 495: Integrated Technology Assessment course. This 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 the Nuclear Engineering Technology degree program outcomes. These learning statements must be supported by documented evidence demonstrating that the outcomes have been met.)*

B. Nuclear Engineering Technology Electives: You may apply electives from the following list toward completion of the 48-credit requirement of the technology component. They have been categorized in occupational specialty areas to assist you in designing your program. The faculty will review any nuclear engineering technology courses whose titles do not appear on this list for their applicability as electives in the nuclear engineering technology component. Through your choice of electives, you may design a specialization beyond the core.

Reactor Operator

Advanced Reactor Theory
Control Systems (electromechanical)
Instruments and Controls
Nondestructive Testing
Nuclear Welding
Print Reading
Radio Chemistry
Reactor Safety: Mitigating Core Damage
Reactor Kinetics
Reactor Control Systems
Shielding
Simulator Training
Systems (BWR, PWR)
Transient Analysis

Quality Assurance Technician

Codes and Standards
Computer Systems
Computer Programming
Database Management
Engineering Drawing/Blueprint Reading
Measurements
Probabilistic Reliability Analysis
Quality Assurance/Quality Control
Regulations
Technical Specifications

Health Physics Technologist

Advanced Instrumentation
Emergency Planning
Instrument Calibration
Radiation Biology
Radiation Effects/Interaction with Matter

CHART 11

Bachelor of Science in Nuclear Engineering Technology

Total Degree Credits Required: 124

BS

Arts and Sciences Component

	Credit Hours
Communications (must include 3-credit Written English Requirement)	9
Ethics	3
Social Sciences/History	6
Humanities and Social Sciences/History Electives	6
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)	24
Arts and Sciences Electives	12
Total Arts and Sciences Component	**60**

Nuclear Engineering Technology Component *

Core Requirements Electrical Theory 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**

* **Five labs are required (chemistry, physics, radiation measurement, and two additional in natural sciences and/or nuclear engineering technology subjects).**

Free Elective Component

	Credit Hours
Free Elective Component (must include 1-credit Information Literacy Requirement)	**16**

Chemistry Technician

Analytical Chemistry
Advanced Computer Analysis (Chemistry)
Corrosion Chemistry
Instrumental Analysis (methods)
Physical Chemistry
Radiochemistry
Water Chemistry

Instrumentation and Controls Technician

Advanced Electronics
Computer Languages
Computer Systems
Data Base Concepts
Digital Electronics
Electronics
Industrial Electronics
Metrology (instrument calibration)
Microprocessor Programming
Microprocessor Systems
Process Control Theory
Scaling (mathematical)
Digital Process Control

Mechanical Technician

Filters and Resin Beds
Heat Exchangers
Machinery Alignment
Pipe Erosion/Corrosion
Pipe Supports/Constraints
Precision Machine Tools and Instrumentation
Pressure Vessels and Piping
Pumps and Valves
Steam Generators
Tool Calibration
Tube Inspection and Repair
Valve Operators
Waste Processing (Rad and/or Industrial)

C. Laboratory Requirement: Your BS 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

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. See page 16 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. Credit is not granted for physical education activity courses.

Course Materials Policy

The faculty requires that students submit course materials for all math, science, and technology component courses. 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 by TAC of ABET (Technology Accreditation Commission of the Accreditation Board for Engineering and Technology) 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

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. To 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 after an official transcript is received from the NRRPT in Kennewick, Washington.

Credit for Navy Nuclear Power School (Enlisted)

The Excelsior College faculty has conducted their own review of the Basic Nuclear Power course at the Navy Nuclear Power School for enlisted personnel and will apply degree credits to students who have completed the school's curriculum since 1961. The application of this credit to the requirements for the BS in Nuclear Technology degree is as follows:

Credits		Requirements Fulfilled
2	College Algebra	Natural Sciences/Mathematics Elective
2	Trigonometry	Natural Sciences/Mathematics Elective
3	Physics	Physics I (without lab)
3	Physics	Physics II (without lab)
3	Atomic Physics	Atomic Physics
3	Nuclear Physics	Nuclear Physics
3	Chemistry	Chemistry (without lab)
2	Thermodynamics	Thermodynamics
2	Radiological Fundamentals	Health Physics/Radiation Protection
3	Reactor Technology	Nuclear Technology Electives
3	Heat Transfer and Fluids	Heat Transfer and Fluids
2	Nuclear Materials	Nuclear Materials

Credits for Operator Specialized Training	
2 Machinist's Mate	Electrical Theory
2 Electronics Technician	Mechanical Theory
2 Electrician's Mate	Mechanical Theory
2 Interior Communications	Mechanical Theory

Credit for Nuclear Propulsion Plant Operators (Prototype)

The Excelsior College faculty has conducted their own review of the Nuclear Propulsion Plant Operator courses at the Prototype School for enlisted personnel and will apply degree credits to students who have completed the school's curriculum since January 1990. The application of this credit to the requirements for the BS in Nuclear Technology degree is as follows:

Nuclear Propulsion Plant Operator Reactor: Electronics Technician Rate

3 credits in Oral Communications
3 credits in Industrial Safety
3 credits in Basic Health Physics
3 credits in Introduction to Power Systems
8 credits in Reactor Systems Practicum
3 credits in Troubleshooting Reactor Power Systems
Radiation measurement laboratory is satisfied.

Nuclear Propulsion Plant Operator Electrical: Electrician's Mate Rate

3 credits in Oral Communications
3 credits in Industrial Safety
3 credits in Basic Health Physics
3 credits in Introduction to Power Systems
6 credits in Electrical Systems Practicum
3 credits in Troubleshooting Electrical Systems
Radiation measurement laboratory is satisfied.

Nuclear Propulsion Plant Operator Mechanical: Machinist's Mate Rate

3 credits in Oral Communications
3 credits in Industrial Safety
3 credits in Basic Health Physics
3 credits in Introduction to Power Systems
8 credits in Mechanical Systems Practicum
3 credits in Troubleshooting Mechanical Systems
Radiation measurement laboratory is satisfied.

Note: Because of the time limit on content, the nuclear materials requirement is not satisfied if the power school coursework was completed prior to 1970. See the time limit section of the nuclear engineering technology degree description for further information.

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 Reactor Operator
- Engineering Support Technician
- Radiation Protection Technician
- Chemistry Technician
- Electrical Maintenance Technician
- Instrumentation and Controls Technician
- Mechanical Maintenance Technician
- Instructor Training

Note: For more information about this source of credit, please contact the School of Business and Technology.

Use of Proficiency Exams for Technology Degree Credit

The Excelsior College technology faculty awards a limited amount of credit from proficiency examinations toward the arts and sciences and/or applied professional elective credits components of the technology degree programs. Please be aware, however, that the nature of the specific technology requirements precludes, for the most part, the earning of relevant credit through testing except in the Associate in Science in Computer Software and the Bachelor of Science in Information Technology degree programs. If you are considering examinations, we strongly advise you to consult your academic advisor before registering for a proficiency examination. If you obtain an advisor's approval of a particular test for degree credit, write or call the administrators of the various examinations on the following page for additional information about test content, study materials, scheduled test dates and locations, and other details.

Proficiency Exams for Technology Degree Credit

Excelsior College Examinations

Test Administration Office
Excelsior College
7 Columbia Circle
Albany, NY 12203-5159
Toll free: 888-72EXAMS

CLEP Tests

College-Level Examination Program Services
PO Box 6600
Princeton, NJ 08541-6600
609-951-1026

DANTES Examinations

DANTES Program Office
Educational Testing Service
Princeton, NJ 08541-0001
609-951-6425

Graduate Record Examinations (GRE) Subject Tests

Graduate Record Examinations
Educational Testing Service
PO Box 6000
Princeton, NJ 08541-6000
609-771-7670

ICCP Examinations

Institute for Certification of Computing Professionals
2350 East Devon Avenue, Suite 115
Des Plaines, IL 60018-4610
800-U-GET-CCP or 847-299-4227

Credit for ICCP (Institute for Certification of Computing Professionals) Examinations

Excelsior College awards credit, based on the credit recommendations of the American Council on Education (ACE), for the completion of examinations offered by the Institute for Certification of Computing Professionals (ICCP). The Excelsior College technology faculty have classified the credit recommendations in terms of the requirements of the computer technology, computer software, and computer information systems degree programs.

Certain sections of the examinations duplicate each other. There may also be content duplication between these examinations and other sources of credit you transfer to Excelsior College. Please contact your advisor to discuss how the ICCP examinations will apply toward your degree requirements.

Credit for Vendor Examinations

Excelsior College awards credit for completion of examinations offered for certification by certain technology vendors (e.g., Microsoft, CompTIA, and Novell). The Excelsior College technology faculty have classified the credit recommendations in terms of the requirements of the computer technology, computer software, and information technology programs.

Certain sections of the examinations may duplicate each other or other sources of credit you transfer to Excelsior College. Please contact your advisor to discuss how vendor examinations will apply toward your degree requirements.

Use of Graduate Record Examinations (GRE) Subject Tests

If you enrolled in Excelsior College and/or took a GRE Subject Test after September 1, 1996, you are subject to a policy under which credits are awarded based on the percentile rating corresponding to your scaled score. For more information about how the GRE applies to technology degrees, contact your advisor.

Learning Resources

As you pursue an Excelsior College degree, you will have at your disposal a wide variety of learning resources from the college and perhaps in your own community. Working toward a degree at a distance can be an exciting, rewarding experience. Excelsior College students who are most successful create their own learning communities using many different resources to meet their individual needs. These learning and assessment services are designed to assist the self-directed learner in preparing for demonstration of acquired college-level proficiency.

The Excelsior College Virtual Library (ECVL)

The Excelsior College Virtual Library (ECVL) is an online library designed for distance learners. Created through our partnership with the Sheridan Libraries of The Johns Hopkins University, the ECVL is located at www.library.excelsior.edu (login required). It provides access to a broad array of resources such as journal articles, books, Web sites, academic databases, and reference services. These resources can help you prepare for Excelsior College courses and examinations, and you can use them to enhance your research activities as well. The ECVL can only be accessed by enrolled students.

Academic Advising

Excelsior College academic advisors and advising teams are available to assist you in interpreting degree requirements, selecting appropriate credit sources, and building your learning communities. They can also recommend a wide range of resources to support your studies.

Excelsior College Bookstore

The Excelsior College Bookstore offers recommended textbooks, educationally priced software, and other resources to help you prepare for Excelsior College® Examinations and courses, and other exams and coursework you may undertake as you work toward your Excelsior College degree.

You can also order complete packages of guided learning materials through the bookstore. Items within the packages can also be ordered separately.

Excelsior College has partnered with MBS Direct to provide online bookstore services to our students and examinees. Services include accurate online ordering, a wide selection of new and used books—including over 7,000 titles in eBook format, competitive pricing, a customer loyalty program, an online buyback program, and a U.S.-based customer service available 7 days a week by phone and email (Eastern time).

Phone: 800-325-3252
Fax: 800-325-4147
Email: vb@mbsbooks.com
Monday–Thursday: 7:00 am to 9:00 pm
Friday: 7 am to 6 pm
Saturday: 8:00 am to 5:00 pm
Sunday: Noon to 4 pm

Order online, anytime:
https://www.excelsior.edu/bookstore

Write:
Excelsior College Bookstore
c/o MBS Direct
2711 W. Ash St.
Columbia, MO 65203

Excelsior College Workshops

Periodically, at sites around the country, Excelsior College staff members offer workshops to help students identify their learning styles and make the best use of resources suited to those learning styles. They also help students improve their overall study and test-taking skills and prepare for particular assessments such as the nursing theory and performance examinations.

Course Search

Excelsior College offers a unique course search feature that allows enrolled students to search for specific courses to complete their degree requirements. This feature is linked to a student's academic evaluation summary and will result in courses already reviewed and classified by academic advisors to meet remaining degree requirements. Students will be able to choose from Excelsior College® Examinations, Excelsior College courses, and courses from preferred provider institutions. Students will find accurate, up-to-date course information and have the opportunity to request online course approval from their advisor and to register online for their course. This inclusive process allows for students to find courses that meet their degree requirements, request course approval, and register—all online and in one place.

Online Tutoring Services

Excelsior College online tutoring services provide enrolled and prospective students access to subject matter experts. These services are available on a fee-for-service basis and currently assist students with writing and statistics. For further information about these services, email learn@excelsior.edu or call the Office of Online Education and Learning Services toll free at 888-647-2388 (press 1-4-4 at the greeting).

Guided Learning Packages

If you are preparing for one of several selected Excelsior College Examinations, you can get all the study resources you need for successful preparation in a comprehensive package produced exclusively by Excelsior College, available from the Excelsior College Bookstore. Each guided learning package has been carefully developed to provide you with thorough, integrated learning resources. They include the following materials:

- A course guide, which lists specific assignments to complete as you work your way through the study materials
- Sample exam questions and tips on how to do your best when you take the exam
- Textbooks and associated materials required by faculty

Visit our Web site for a current list of guided learning packages.

My Access!® Online Guided Writing Tool

Studies have shown that the more guided writing you do, the better your writing becomes. MY Access! can truly enable you to be your own writing teacher! In addition to providing writing assignment topic prompts and writing feedback in five categories (focus and meaning, content and development, organization, language use and style, and mechanics and conventions), MY Access! gives students a complete suite of writer's tools including revision checklists, a thesaurus, and a writer's journal.

Using the same scoring engine—IntelliMetric™—used to score exams at our testing centers, MY Access! can be accessed as many times as you wish during the subscription period of nine months. Therefore, you can practice different aspects of writing and receive detailed diagnostic feedback, which will help you to improve your skills.

For more introductory information about the MY Access! service, please visit www.excelsior.edu/exams and click on the MY Access!® College Writing Tool link in the EC Exams News and Announcements box.

The Excelsior College Web Site

The Excelsior College Web site at www.excelsior.edu offers interactive online services such as examination registration and personalized student record/status information retrieval as well as instant access to a wealth of information about degree programs, new College offerings, current fees, financial aid, and more. The site also contains downloadable forms and publications as well as an email directory you can use to locate and contact your advising team online. Keep informed and in touch by visiting often.

The Electronic Peer Network (EPN)

The Electronic Peer Network is a Web-based environment that enables enrolled Excelsior College undergraduate students (and alumni) to interact academically and socially online. Members of the EPN can locate study partners, participate in real-time chat groups, join online study groups, buy and sell used textbooks, share Internet resources, and search databases of distance courses. Enrolled students have automatic access to the EPN from their *My*EC page.

The Graduate Resource Network (GRN)

Our graduates in locations across the United States and in some foreign countries have volunteered to serve as resources for prospective and currently enrolled students. Members of the GRN will share their own experiences with examinations or courses they have taken and can help you locate learning resources in your area. They will talk with you about the challenges you may face in returning to school and about managing work and family obligations while you pursue your degree. Contact the Office of Alumni Affairs, or email alumni@excelsior.edu for further information.

Career Services

Career advisement and related services are available to students enrolled in the liberal arts degree programs. Information and materials regarding self-assessment, career exploration and planning, graduate school, and job searching can be accessed on the Excelsior College Web site at www.excelsior.edu. Career assessment materials and other career resource books are also available online through the Excelsior College Bookstore. Additional information about career services is available from academic advisors.

Excelsior College® Examinations

Through Excelsior College Examinations, you can earn credit toward a degree at Excelsior College and approximately 900 other colleges and universities throughout the United States, Canada, and the U.S. Territories. Credit from Excelsior College Examinations can also be used for job advancement or for meeting certain licensure requirements. The examinations cover college-level subjects in the arts and sciences, nursing, business, health sciences, and education.

Examination content guides and nursing examination study guides are available at no charge from Excelsior College. Each content guide describes examination content and includes sample questions and recommended texts. Course guides and guided learning packages for a number of the examinations are available for purchase through the Excelsior College Bookstore. The college also offers a variety of study support services to enrolled students preparing for Excelsior College Examinations including online study support through listservs and our Electronic Peer Network (EPN).

Most Excelsior College Examinations carry upper-level credit. All undergraduate examinations are three hours in length. With the exception of specific circumstances, such as reasonable accommodations, Excelsior College Examinations are administered via computer at all our testing centers throughout the United States, Canada, and the U.S. Territories. For further details regarding computer-delivered testing, please refer to our publication titled *Excelsior College® Examinations Registration Guide.*

Excelsior College Examinations are also administered internationally at approved test centers. For the U.S. military, the examinations are available worldwide through the Defense Activity for Non-Traditional Education Support (DANTES) program. For additional information, contact the Test Administration Office.

Study Resources for Excelsior College Examinations

The College provides free, downloadable Excelsior College Examinations content guides and free study guides for the nursing performance examinations (available in hard copy to enrolled nursing students).

Excelsior College Practice Exams

Students working toward the associate degree in nursing or studying for the Abnormal Psychology, Anatomy & Physiology, Ethics: Theory & Practice, Foundations of Gerontology, Life Span Developmental Psychology, Microbiology, or Organizational Behavior examinations can now take online practice exams. These practice exams offer the chance to sample the types of questions that appear on the actual Excelsior College Examination you will take for credit. Take these tests online—at home—and receive valuable feedback that can help you to further prepare. For more information please see the *Excelsior College Examinations Registration Guide.*

All practice exams are available only to students who have registered for the corresponding credit-bearing exam. For the Nursing Concepts 3, 4, 5, 6, and Foundations practice exams, you must be enrolled in the Excelsior College School of Nursing.

Visit www.excelsior.edu/exams for future practice exam offerings.

Portfolio-Based Assessment

Portfolio assessment is the method used by students to satisfy Excelsior College undergraduate degree requirements that cannot be met by existing standardized examinations or other methods of evaluation.

Students must petition for a minimum of six (6) credits. There are no restrictions on the maximum number of credits a student can petition through portfolio assessment.

Other Examination Programs

When you enroll in Excelsior College, you receive *A Student Guide to Credit by Examination at Excelsior College*, a publication that lists all of our available examinations and examinations offered by several other testing programs. It explains how the examinations may be used to fulfill Excelsior College degree requirements. This publication also states policies on passing scores and includes a conversion chart that shows the letter grade for each scaled score. Many Excelsior College students also use the College-Level Examination Program (CLEP), Defense Activity for Non-Traditional Education Support (DANTES) Subject Standardized Tests, and/or Graduate Record Examinations (GRE) Subject Tests to meet their degree requirements.

In addition, Excelsior College grants credit for all examinations recommended by the American Council on Education (ACE) College Credit Recommendation Service of the Center for Lifelong Learning. These are listed in the ACE *Guide to Educational Credit by Examination.*

Excelsior College Credit Bank

Many individuals do not need or wish to enroll in a particular program of study but do need to consolidate their academic records for employment, promotion, or educational purposes. The Excelsior College Credit Bank provides a means for non-enrolled students to certify accumulated college-level credit without enrolling in an Excelsior College degree program.

Credit earned from proficiency examinations (such as Excelsior College® Examinations, formerly known as Regents College Examinations), regionally accredited campus-based and correspondence courses, accredited military training, business/industry/government/police training that has been evaluated for college credit 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 Program on Noncollegiate Sponsored Instruction (National PONSI), or other accredited sources may be reported to Excelsior College for consolidation on a single Excelsior College transcript. You may have duplicative credits and college-level credits from courses such as physical education listed on your Credit Bank transcript, but such credits will not apply toward an Excelsior College degree if you decide to enroll. Your transcript will note clearly that you are enrolled in Credit Bank. The reverse side of the transcript will include, in addition to other information, a description of Credit Bank as a transcripting service and the notation that not all courses and credit listed on the Credit Bank transcript apply toward Excelsior College degree programs.

Community Resources

No matter where you live, many learning resources are available to assist and support you in completing your degree requirements. In addition, the Internet provides local access to an almost limitless quantity of up-to-date and in-depth information from around the world that you can use to enhance your studies.

Local Colleges and Universities

You will have access to the libraries and instructional resources of local colleges where you take classes. In many cases you can use these resources, particularly at public colleges and universities, even if you are not taking courses there.

Public Libraries

Public libraries provide a wealth of information that is helpful to students. Many also have librarians available to meet the needs of self-directed learners. They can assist you in identifying and acquiring study ma-

terials, either within their own collections or through interlibrary loan. Excelsior College is a member of the Capital District Library Council (CDLC).

If you live in one of the ten counties covered by the CDLC (www.cdlc.org), you can obtain a DAP card that will enable you to borrow books and materials from CDLC members. For more information, contact learn@excelsior.edu.

For your benefit:

A Word of Caution About Test Preparation and Tutorial Services

However, because there are companies that sell test preparation products and services, we felt it in our students' best interest to develop operating standards, a set of Best Practices for Test Preparation Providers, which we believe these companies should voluntarily follow. We have done this to give our students a measure of confidence that the test preparation company with which they are dealing has a record of engaging in ethical business and financial practices with its clients. You can find these Best Practices at www.excelsior.edu/bestpractices.

Using the services of a test preparation provider is up to individual students and whether or not they believe they need these services. We do not review the materials any company produces for content. Test preparation providers that agree to follow our Best Practices, though, are expected to use the learning resources that are required and/or recommended by our faculty in the development of the study materials that they produce.

Before you spend hundreds, even thousands of dollars for the products and services of a test preparation provider, check to see if the company has voluntarily agreed in writing to follow our Best Practices for Test Preparation Providers.

The best way is to call the College and ask us. Another way is to see if the company displays on its Web site and in its publications the graphic shown here. Only test preparation providers that have agreed to follow our Best Practices are authorized to display this symbol.

EXCELSIOR COLLEGE
BEST PRACTICES

Excelsior College itself does provide its students with a variety of learning opportunities and assistance. These include:

- Guided learning materials prepared by our faculty who develop the exams
- Online practice tests for many of our exams
- Access to our online library which is provided in collaboration with Johns Hopkins University
- Workshops and teleconferences
- Help from master's and doctoral prepared nurse educators for our nursing exams

Since the materials and programs that Excelsior provides to its students are prepared by the faculty who develop the exams, you can be assured that Excelsior's materials are current and cover the subjects you are expected to master for the exams.

Financial Aid

Several options are available to assist independent learners with the cost of earning an Excelsior College degree. Staff members in our Financial Aid Office are ready to answer your questions about financial aid opportunities and provide additional information on all of the programs described below, most of which are available to both our undergraduate and graduate students. For detailed instructions, applications, and other personalized assistance, please feel free to contact our Financial Aid Office at any time. Visit our Web site at www.excelsior.edu/financialaid or call toll free 888-647-2388; press 1-4-3 at the automated greeting.

Sources of Financial Aid

Scholarships Offered Through Excelsior College

- President's Scholarships
- Julia O. Wells Memorial Education Foundation Scholarships
- David W. Miller Scholarships
- Master Sergeant David K. Thuma Memorial Scholarships
- Alumni Association Scholarships
- Excelsior College Endowment Fund Scholarships
- Fred L. Emerson Foundation Scholarships
- AXA Foundation Scholarships
- Ewald B. Nyquist Scholarships
- Reeves-Ellington Scholarships
- Roy L. Simpson Nursing Informatics Scholarships

Private Loan Programs

- The Wells Fargo P.L.A.T.O.® Career Loan
- CitiAssist℠ Loan
- EXCEL℠ Family Education Loan
- EXCEL℠ GRAD Loan

Federal Programs

Beginning January 2008, Excelsior will be administering the following Federal Title IV Aid programs. To apply for federal financial aid, you will need to complete a FAFSA form available at www.fafsa.ed.gov. Excelsior College's Federal School Code number is 014251.

- Pell Grants
- Stafford Loans
- PLUS Loans
- Graduate PLUS Loans

New York State Programs

- Aid for Part-Time Study (APTS)
- Tuition Assistance Program (TAP)
- Vietnam Veterans Tuition Awards (VVTA)
- Persian Gulf Veterans Tuition Awards (PGVTA)

Other Sources

- Private Scholarships
- Employer and Union Tuition Assistance
- Vocational Rehabilitation and VESID
- Department of Labor Programs

Department of Veterans Affairs—Benefits and Programs

- Montgomery G.I. Bill-Active Duty (Chapter 30)
- Montgomery G.I. Bill-Selected Reserve (Chapter 106)
- Post-Vietnam Era Veterans Educational Assistance Program (VEAP) (Chapter 32)
- Old G.I. Bill (Chapter 34-noncontributory; converted to Chapter 30)
- Reserve Educational Assistance (REAP) (Chapter 1607)
- Educational Assistance Test Program (Section 901)
- Educational Assistance Pilot Program (Section 903)
- Survivors' and Dependents' Educational Assistance Program (Chapter 35)
- Restored Entitlement Program for Survivors (REPS)
- Vocational Rehabilitation (Chapter 31)
- Military Tuition Assistance

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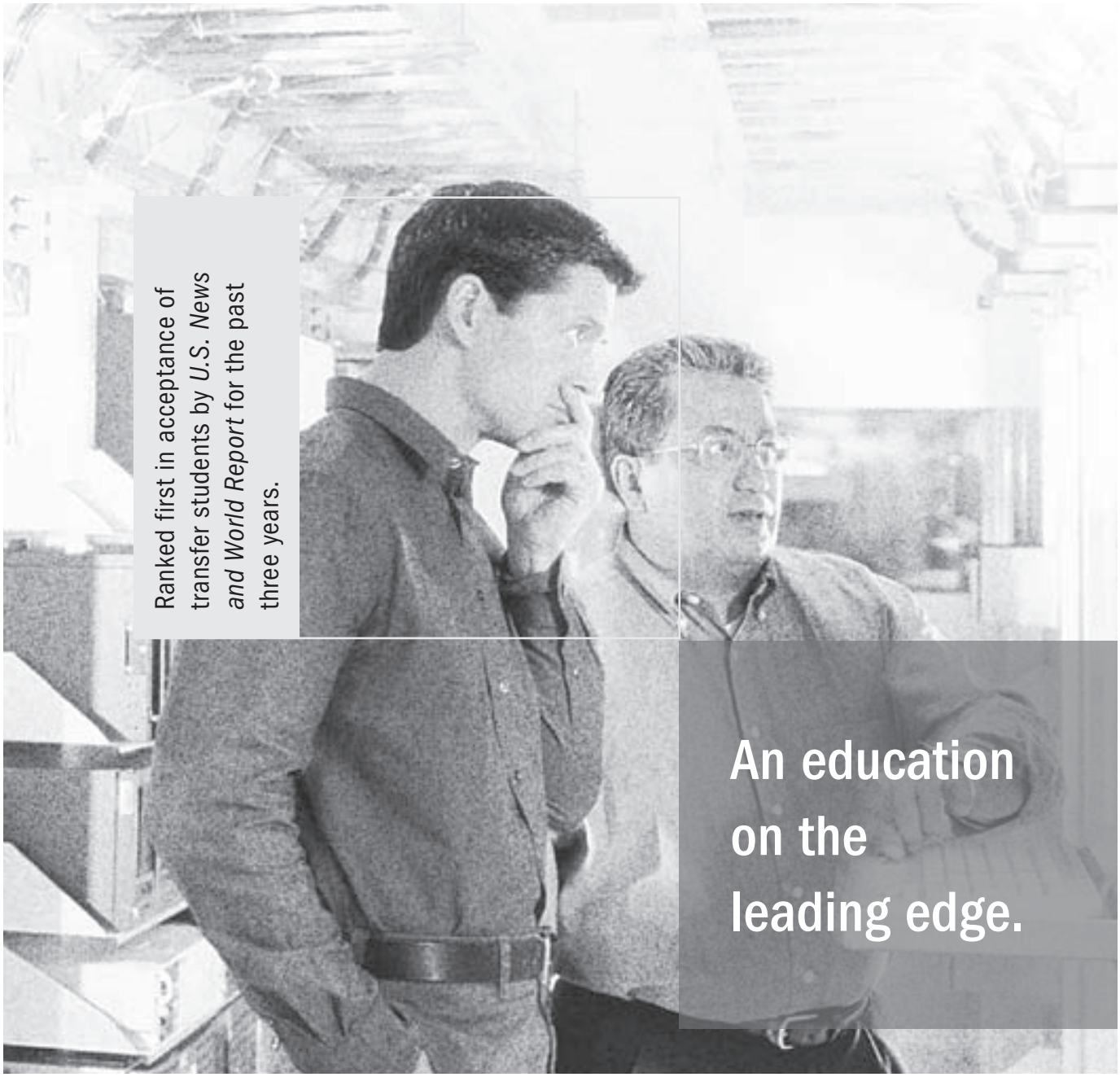
New York State Education Department Inventory of Registered Programs

Higher Education General Information Survey Code for Classifying Academic Subject Areas.

Program Title	HEGIS	Award
School of Business and Technology, Business Programs		
Entrepreneurship	5004	Certificate
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
Nursing 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
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		
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



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EX0024 | tech07-003 | 06/2006, 09/2007