

CAREER/TECHNICAL PROGRAMS

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CAREER/TECHNICAL PROGRAMS— ASSOCIATE OF APPLIED SCIENCE DEGREE

Pellissippi State offers 13 programs that prepare students for business and technical careers. These programs are designed for the student whose primary educational goal is entry-level employment or career advancement. The placement rate for Career/Technical graduates is consistently above 90 percent. The College's Career/Technical programs are continually revised to reflect the changes in the skills and knowledge graduates need to be successful in responsible positions in business and industry. These programs are not designed for transfer to baccalaureate institutions; however, general education courses typically transfer to most four-year colleges and universities. Several Engineering and Media Technologies programs are fully transferable to East Tennessee State University.

The degree earned is the Associate of Applied Science. All Associate of Applied Science degree programs offered at Pellissippi State require a minimum of 60 semester hours.

CAREER/TECHNICAL GUARANTEE

The Job Competency Guarantee Program

The faculty of Pellissippi State guarantee that any graduate of a Career/Technical Associate of Applied Science degree program judged by his/her employer as lacking in the technical job skills expected of an entry-level employee will be provided additional courses (up to 15 semester hours) by Pellissippi State AT NO CHARGE.

The Degree

The graduate must have earned a Career/Technical Associate of Applied Science degree in June 1988 or thereafter as evidenced by the area of concentration designated on the student transcript. The student must have earned at least a C in all major courses of study.

The Employment

The employment must be full time, and the job must be certified by the Placement Office as directly related to the graduate's program of study. Initial date of employment of the graduate must be within one year of completion of program requirements.

The employer must provide Pellissippi State written notification that the employee is lacking the job entry-level knowledge and skills identified at the time of initial employment and must specify the area(s) of deficiency within 90 days of the graduate's initial employment.

Affective behaviors, such as attitude, judgment and interpersonal relations, will be considered job competencies for purposes of the guarantee, provided that formal instruction in appropriate affective behaviors is included within the specialty area.

The Retraining Guarantee

Skill retraining will be limited to 15 semester credit hours and to enrollment in credit courses regularly offered by Pellissippi State. The skill retraining must be completed in one academic year.

The employer, the graduate and a college counselor, with the advice of appropriate teaching faculty, will develop an educational plan that specifies the course(s) constituting the 15 credit hours of retraining. The graduate must meet all prerequisites, corequisites and other admission requirements for retraining courses. Failure, withdrawal or

audit of a retraining course(s) is creditable to the 15 credit hour limit.

Pellissippi State will waive tuition and fees. The graduate or the employer will bear the costs of books, supplies and other related costs.

REGENTS ONLINE DEGREE PROGRAMS

See the College Transfer/University Parallel Programs section of this Catalog for information about Regents Online Degree Programs.

CAREER/TECHNICAL PROGRAM OPTIONS

Program information is provided in this section for each of the following Career/Technical Programs:

Business Administration

Computer Accounting
Concentration
Hospitality Concentration
Management Concentration
Marketing Concentration

Civil Engineering Technology

Computer Integrated Drafting and Design Technology

Computer Science and Information Technology

Database Design and
Development Concentration
High Performance Computing
Concentration
Networking and Communications
Systems Concentration
Programming Concentration

Early Childhood Education

Electrical Engineering Technology

General Technology

Interior Design Technology

Mechanical Engineering Technology

Manufacturing Concentration
Mechanical Concentration
Plastics Engineering Technology
Concentration
Quality Control Concentration

Media Technologies

Communication Graphics
Technology Concentration
Photography Concentration
Video Production Technology
Concentration
Web Technology Concentration

Office Systems Technology

Business Concentration
Health Care Office
Administration Concentration

Paralegal Studies

Security Engineering and

Administration Technology

CAREER/TECHNICAL CORE CURRICULUM*

Courses	Credit Hours
English Composition I.....	3
Humanities/Fine Arts.....	3
Mathematics or Natural Sciences	3-5
Social/Behavioral Sciences	3-4
General Education Elective.....	3-5
	Total Core: 15+
	Major: 45+
	Total: 60+

* Courses designated to fulfill general education requirements at Pellissippi State Technical Community College are published in the General Education section of this Catalog.

COOPERATIVE EDUCATION

The Cooperative Education Program (Co-op) enhances the Career/Technical programs by offering students the opportunity to integrate classroom theory with practical work experience. Paid work experiences are arranged in career-related areas to benefit both the student and the employer. This hands-on work experience enables the student to attain increased self-confidence, increased marketability upon graduation, and academic credit and income while in school. For the employer, the program provides highly motivated students for entry-level positions and a source for potential employees.

Eligibility. To qualify for the Cooperative Education Program, the student must be enrolled in a Career/Technical program at Pellissippi State, must be in good standing academically, and must have completed 15 or more credit hours of college-level courses in the major. A student who is appropriately placed on the job in her/his career major upon entering Pellissippi State may be eligible for immediate enrollment in Co-op.

Credit. Academic credits are awarded for the cooperative work experience on a variable scale based upon the number of hours on the job. To earn one academic credit, the student must work 45 hours on the job. Tuition will be calculated according to the projected credit hours to be earned in co-op work experience during the semester. Once placed in a position by the Co-op Office, the student is required to register for Cooperative Education course credit each semester worked. Since co-op courses will be add-on credit, a student may earn credits as long as she/he is eligible to remain in the Co-op program. If a student is registered for 12 credit hours, no additional payment will be required when adding co-op hours during a term. However, students registered for less than 12 credit hours will be required to pay for co-op credit hours.

Grades. The grading for the cooperative education work experience will be PASS/NO PASS. A grade designation is given where cooperative work experience is used for course substitution.

COOPERATIVE EDUCATION COURSES

<u>Course No.</u>	<u>Course Title</u>	<u>Hours of Work</u>	<u>Credit Hours</u>
COP 1911	Cooperative Education	45.....	1
COP 1912	Cooperative Education	90.....	2
COP 1913	Cooperative Education	135.....	3
COP 1914	Cooperative Education	180.....	4
COP 1915	Cooperative Education	225.....	5

COP 1916	Cooperative Education	270	6
COP 1921	Cooperative Education	45	1
COP 1922	Cooperative Education	90	2
COP 1923	Cooperative Education	135	3
COP 1924	Cooperative Education	180	4
COP 1925	Cooperative Education	225	5
COP 1926	Cooperative Education	270	6
COP 1931	Cooperative Education	45	1
COP 1932	Cooperative Education	90	2
COP 1933	Cooperative Education	135	3
COP 1934	Cooperative Education	180	4
COP 1935	Cooperative Education	225	5
COP 1936	Cooperative Education	270	6
COP 1941	Cooperative Education	45	1
COP 1942	Cooperative Education	90	2
COP 1943	Cooperative Education	135	3
COP 1944	Cooperative Education	180	4
COP 1945	Cooperative Education	225	5
COP 1946	Cooperative Education	270	6
COP 1951	Cooperative Education	45	1
COP 1952	Cooperative Education	90	2
COP 1953	Cooperative Education	135	3
COP 1954	Cooperative Education	180	4
COP 1955	Cooperative Education	225	5
COP 1956	Cooperative Education	270	6
COP 1961	Cooperative Education	45	1
COP 1962	Cooperative Education	90	2
COP 1963	Cooperative Education	135	3
COP 1964	Cooperative Education	180	4
COP 1965	Cooperative Education	225	5
COP 1966	Cooperative Education	270	6
COP 1971	Cooperative Education	45	1
COP 1972	Cooperative Education	90	2
COP 1973	Cooperative Education	135	3
COP 1974	Cooperative Education	180	4
COP 1975	Cooperative Education	225	5
COP 1976	Cooperative Education	270	6

CAREER/TECHNICAL PROGRAM DESCRIPTIONS AND REQUIREMENTS

BUSINESS ADMINISTRATION

Accreditation. Accredited by the Association of Collegiate Business Schools and Programs, 7007 College Blvd., Suite 420, Overland Park, KS 66221, (913) 339-9356, www.acbsp.org.

Program description. The Business Administration program encompasses related Career/Technical disciplines in four general concentrations: Computer Accounting, Hospitality, Management and Marketing. Students will earn a degree in a cross-disciplinary environment that reflects the trend in industry. The program employs

instructors with years of practical experience and is guided by working professionals.

Computer Accounting concentration. The Computer Accounting concentration offers a core curriculum that provides the academic and technical background for individuals who wish to prepare for entry-level accounting positions in business and industry using both accounting and personal computer skills. The curriculum is designed to enable the graduate to apply principles of accounting to business situations and to understand other functions of business: marketing, management, finance and information processing.

Hospitality concentration. The Hospitality concentration is designed to provide the skills and knowledge necessary for graduates to succeed in the hospitality management field. Practical applications of basic management theories and principles are stressed. Courses incorporate work-related experiences to simulate realistic management problems and opportunities. The curriculum also includes on-the-job experience as an intern. Organizations in the industry frequently promote from within, so the internship can be a significant asset.

Management concentration. The mission of the Management concentration is to produce graduates with the skills necessary to effectively manage and provide leadership for any organization's most important resource: its people.

Marketing concentration. The Marketing concentration is designed to provide the skills graduates need to enter careers in marketing, customer service and small-business management. Coursework focuses on basic marketing principles, including intense work in promotion, e-commerce, customer service, event marketing and sales. Basic understanding of theory and principles are essential, but the program's emphasis is on practical applications. Courses incorporate realistic projects, case analyses, simulations, presentations, teamwork and internship opportunities.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities:

Computer Accounting: Accounts payable technician, accounts receivable technician, payroll technician, financial institution technician

Hospitality: Associate manager, small-business operator, assistant manager, functional assistant manager

Management: Team leader, supervisor, human resources assistant, small business manager/owner, management trainee, branch manager

Marketing: Advertising media sales representative, customer service representative, director of marketing, e-commerce coordinator, industrial sales representative, marketing coordinator, small business owner/manager

Educational Objectives. After successfully completing the Business Administration program, the graduate will be equipped to do the following:

- I. Understand the basic principles of Business Administration and apply them.
- II. Integrate business disciplines.

- III. Identify problems and use appropriate techniques to find solutions.
- IV. Work independently and function on a team.
- V. Demonstrate basic math, verbal and written communications and computer skills.
- VI. Qualify for entry-level positions in business.
- VII. Understand and appreciate the global nature of business.

Contact(s): Computer Accounting: Deanne Pannell, dpannell@pstcc.edu, Ann Snodgrass, asnodgrass@pstcc.edu, Rick Oster, roster@pstcc.edu, Mark Fuentes, mhfuentes@pstcc.edu; **Hospitality:** Tom Gaddis, (865) 971-5246, tfgaddis@pstcc.edu; **Management:** Roger Crowe, rcrowe@pstcc.edu; Denise Reed, dcreed@pstcc.edu **Marketing:** Anne Swartzlander, aswartzlander@pstcc.edu, Lisa Bogaty, lbogaty@pstcc.edu; Business and Computer Technology Department, (865) 694-6656

Business Administration/Computer Accounting Concentration—Courses and Course Sequence

Special note: All Business and Computer Technology students who do not type 28 words per minute with five or fewer errors must enroll in OST 1100.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ACC 2000	Principles of Accounting I	3
ENGL 1010	English Composition I	3
MATH 1530	Elementary Probability & Statistics	3
MKT 2200	Principles of Marketing	3
OST 1211	Introduction to Software Applications	3

Semester II (Spring)

ACC 2030	Principles of Accounting II	3
ACC 2410	Income Taxation	3
ECN 2010	Principles of Economics I	4
OST 2621	Excel	3
SPH 2100	Public Speaking	3

Semester III (Fall)

ACC 2215	Intermediate Accounting I	3
ACC 2360	Cost Accounting	3
ACC 2500	Payroll & Internal Control	3
HUM *	Humanities/Fine Arts Elective	3
MGT 2000	Principles of Management	3

Semester IV (Spring)

ACC 2220	Intermediate Accounting II.....	3
ACC 2530	Accounting Systems	3
ACC 2571	Computer Accounting Internship	3
FIN 2000	Financial Management	3
MGT 2240	Business Capstone	3

Total Credit Hours Needed for Graduation: 61

* See the General Education section of this Catalog for electives.

Business Administration/Hospitality Concentration—Courses and Course Sequence

Special note: All Business and Computer Technology students who do not type 28 words per minute with five or fewer errors must enroll in OST 1100.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ENGL 1010	English Composition I	3
HSP 1200	Intro to Hospitality	3
MKT 2200	Principles of Marketing	3
OST 1211	Introduction to Software Applications	3
SPH 2100	Public Speaking	3

Semester II (Spring)

ECN 2010	Principles of Economics I	4
HSP 2260	Hotel Operations	3
HUM *	Humanities/Fine Arts Elective	3
MATH 1530	Elementary Probability & Statistics	3
MGT 2030	Team Leadership	3

Semester III (Fall)

ACC 2000	Principles of Accounting I	3
HSP ¹	Hospitality Elective	3
HSP 2220	Tourism and Travel.....	4
HSP 2300	Food & Beverage Operation	3
MGT 2050	Human Resources.....	3

Semester IV (Spring)

HSP 2075	Purchasing & Cost Control	4
HSP 2240	Business Capstone	3
HSP 2320	Quantity Food Production	3
HSP 2950	Hospitality Internship.....	3

Total Credit Hours Needed for Graduation: 60

HSP ¹ Hospitality elective to be chosen from any HSP course not listed as a requirement for Hospitality majors.

* See General Education section of this Catalog for electives.

Business Administration/Management Concentration—Courses and Course Sequence

Special note: All Business and Computer Technology students who do not type 28 words per minute with five or fewer errors must enroll in OST 1100.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ENGL 1010	English Composition I	3
MGT 2000	Principles of Management	3
MKT 2200	Principles of Marketing	3
OST 1211	Introduction to Software Applications	3
SPH 2100	Public Speaking	3

Semester II (Spring)

ECN 2010	Principles of Economics I	4
MATH 1530	Elementary Probability & Statistics	3
MGT 2030	Team Leadership	3
MGT 2050	Human Resources.....	3
MGT 2160	Quality Improvement	3

Semester III (Fall)

ACC 2000	Principles of Accounting I	3
ENGL 2950	Business & Technical Writing	3
LAW 2300	Contracts & UCC	3
MGT 2100	Information Systems	3
MGT 2170	Project Management.....	3

Semester IV (Spring)

FIN 2000	Financial Management	3
HUM *	Humanities/Fine Arts Elective	3
MGT 2180	Team Practicum	3
MGT 2240	Business Capstone	3
MGT 2471	Management Internship.....	3

Total Credit Hours Needed for Graduation: 61

*See the General Education section of this Catalog for electives.

Business Administration/Marketing Concentration—Courses and Course Sequence

Special note: All Business and Computer Technology students who do not type 28 words per minute with five or fewer errors must enroll in OST 1100.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ENGL 1010	English Composition I	3
MGT 2000	Principles of Management	3
MKT 2200	Principles of Marketing	3
MKT 2420	Customer Service	3
OST 1211	Introduction to Software Applications	3

Semester II (Spring)

ACC 2000	Principles of Accounting I	3
MKT 2500	Services Marketing.....	3
OST 1007	Access I CBT	1
SPH 2100	Public Speaking	3
WEB 2001	Web Page Design I—HTML Coding	1
WEB 2002	Web Page Design II—Graphics	1
WEB 2003	Web Page Design III—Site Building	1

Semester III (Fall)

ADV 2500	Advertising & Promotion.....	3
ECN 2010	Principles of Economics I	4
MATH 1530	Elementary Probability & Statistics.....	3
MKT 2260	Marketing Information	3
MKT 2450	E-Commerce.....	3

Semester IV (Spring)

FIN 2000	Financial Management	3
HUM *	Humanities/Fine Arts Elective	3
MGT 2240	Business Capstone	3
MKT 2471	Marketing Internship	3
MKT 2570	Sales/Event Marketing	4

Total Credit Hours Needed for Graduation: 60

* See the General Education section of this Catalog for electives.

CIVIL ENGINEERING TECHNOLOGY

Accreditation. Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-401, (410) 347-7700.

Program description. The Civil Engineering Technology program offers a core curriculum that provides an academic/technical foundation to train technicians to function effectively as assistants to civil engineers, environmental engineers, architects, developers or construction managers.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities: Plan reviewer or building inspector, junior estimator, materials lab technician, engineering field representative, junior bridge inspector and field layout person, survey party member.

Educational objectives. After successfully completing the Civil Engineering Technology program, the graduate will be qualified to accomplish the following objectives related to civil engineering technology:

- I. Creatively apply basic engineering theories and concepts.
- II. Communicate effectively within the industry and with the public.
- III. Work individually or in teams to solve work-related problems.
- IV. Apply professional ethics, leadership and personal initiative.
- V. Efficiently utilize industry-standard equipment, instruments and software.
- VI. Obtain gainful employment in the civil engineering/construction management technology discipline or matriculate to a four-year program in engineering technology.

Program outcomes. Upon completion of the Civil Engineering Technology program, the student will have demonstrated the ability to

- A. Apply the principles of mathematics, science and engineering technology.
- B. Perform land measurements and construction layouts.
- C. Select the appropriate construction methods and materials using industry-standard procedures to meet specified needs.
- D. Conduct standard tests on construction materials and soils, analyze the results

- and prepare an appropriate technical report.
- E. Work in a team environment, recognizing the diverse personality types.
 - F. Communicate effectively, including verbal, writing and graphical skills.
 - G. Identify, formulate and solve engineering technology–based problems.
 - H. Read and extract information from manuals, journals and other discipline literature.
 - I. Comprehend social, professional and ethical responsibilities, including development of a respect for diversity and other contemporary issues.
 - J. Realize the importance of a commitment to quality, timeliness and continuous improvement.
 - K. Understand the societal and environmental impacts, locally and globally, of engineered projects.
 - L. Understand the need for continuing education, including further degrees, in a rapidly changing technological world.

Contact(s): George Cox, program coordinator, (865) 694-6504, gcox@pstcc.edu

Civil Engineering Technology—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

CET 1000	CET Seminar	1
CET 1010	Construction Methods	4
CHEM 1110	General Chemistry I	
or GEOL 1040	Physical Geology	4
ENGL 1010	English Composition I	3
MATH 1730	Precalculus	5

Semester II (Spring)

CET 1022	Construction Materials W/Lab	4
CET 1212	Surveying Principles W/Lab	4
CID 1100	Fundamentals of Technical Drawing W/Lab	3
MATH 1530	Elementary Probability & Statistics	3

Semester III (Fall)

CET 2010	Cost Estimating	3
CET 2112	Soil Mechanics W/Lab	4
CET 2212	Advanced Surveying W/Lab	4
MET 1040	Applied Statics	3

Semester IV (Spring)

CET 2021	Project Scheduling W/Lab	3
CET 2220	Site Planning & Development W/Lab	3
CET 2810	Civil Design Applications	3
HUM *	Humanities/Fine Arts Elective	3
PHYS 2010	Noncalculus Based Physics I	4
SBS *	Social/Behavioral Sciences Elective.....	3-4

Total Credit Hours Needed for Graduation: 61

* See the General Education section of this Catalog for electives.

COMMUNICATION GRAPHICS TECHNOLOGY (SEE MEDIA TECHNOLOGIES)

COMPUTER ACCOUNTING (SEE BUSINESS ADMINISTRATION)

COMPUTER INTEGRATED DRAFTING AND DESIGN TECHNOLOGY

Accreditation. Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.

Program description. The goals of the CIDD program are to teach basic drafting standards, CAD applications, integration of 3D modeling with the design/manufacturing process and integration of modeling, imaging and animation as a communication and design tool.

Students are taught drafting skills and standards with traditional drafting tools and CAD software used by industry such as AutoCAD and Microstation. Students are also taught the use of 3D modeling software to construct models of parts or assemblies. Students are taught how electronic models speed production by allowing digital testing, downloading to a machining center, and verifying designs. Modeling, imaging, and animation software is taught as a communication and design tool by generating images and animation for design review, marketing and client reviews.

The CIDD program offers 3 certificates that students may earn in addition to the associate's degree, including Architectural, AutoCAD, and Mechanical.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities: Computer drafting technician—operates computer with CAD software applications to produce drawings and other documents required to construct buildings and/or manufacture parts.

Educational objectives. After successfully completing the Computer Integrated Drafting and Design Technology program, the graduate will be qualified to accomplish the following objectives related to computer integrated drafting and design:

- I. Understand and apply industry standards, principles and practices for engineering graphics required for manufacturing and construction.
- II. Demonstrate proficiency with industry-standard commercial computer graphic applications used in visual representation and communication of graphic information.
- III. Apply basic engineering methods and technology to analyzing and solving technical problems.
- IV. Use software applications, references and other resources used by industry.
- V. Be knowledgeable of office procedures, ethical concerns and professional communication issues of written/verbal/graphic information.
- VI. Undertake endeavors using skills and knowledge, which will contribute to personal growth, professional development, community improvement and attaining goals.

Program outcomes. Upon completion of the Computer Integrated Drafting and Design Technology program, the student will have demonstrated the ability to

- A. Know the techniques, skills, methods, equipment, resources and modern applications of the contemporary engineering graphics industry.
- B. Apply current knowledge and adapt to emerging applications within the areas of engineering technology, mathematics and science.
- C. Conduct, analyze and interpret experiments and apply results to improve procedures.
- D. Use knowledge and applications creatively in the implementation of procedures or methods applied to current industry practices.
- E. Contribute as a team member.
- F. Identify, analyze and solve technical problems appropriate to program objectives.
- G. Communicate effectively in verbal, written and graphic formats using the technology tools contemporary with industry usage.
- H. Recognize the need to maintain current skills and knowledge.
- I. Understand professional, ethical and social responsibilities.
- J. Acknowledge the diversity of knowledge, skills and cultures in the workplace.
- K. Understand the need for quality, timeliness and continuous improvement.

Contact(s): Bill Davis, program coordinator, (865) 694-6501, bdavis@pstcc.edu; Joan Davis, (865) 694-6639, jmdavis@pstcc.edu; Ramzi Ghezawi, (865) 694-6502, rghezawi@pstcc.edu

Computer Integrated Drafting and Design Technology— Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

CET/MET 1	Manufacturing Process Elective	3-4
CID 1100	Fundamentals of Technical Drawing W/Lab	3
ENGL 1010	English Composition I	3
MATH 1730	Precalculus	
or MATH 1710 & 1720	Precalculus Algebra & Precalculus Trig	5-6
SBS *	Social/Behavioral Sciences Elective.....	3-4

Semester II (Spring)

CID 1110	Technical Illustration W/Lab	4
CID 1210	Architectural Drawing W/Lab	4
CID 1220	Advanced Mechanical Drawing W/Lab.....	4
MATH 1530	Elementary Probability & Statistics	
or MATH 1830	Basic Calculus & Modeling	3-4

Semester III (Fall)

CID 2	CID Electives	12
PHYS 2010	Noncalculus Based Physics I	4

Semester IV (Spring)

CHEM 1110	General Chemistry I	
or GEOL 1040	Physical Geology	4
CID 2	CID Elective	2-4
CID 2300	CID Major Projects	4

HUM *	Humanities/Fine Arts Elective	3
MET 1040	Applied Statistics	3
Total Credit Hours Needed for Graduation:		64
CET/MET ¹	Manufacturing process elective to be chosen from CET 1010, 1022; MET 1012, 1020	
CID ²	CID electives to be chosen from CID 2112, 2150, 2240, 2290, 2900; COP 1914	

* See the General Education section of this Catalog for electives.

COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

Accreditation. Accredited by the Association of Collegiate Business Schools and Programs, 7007 College Blvd., Suite 420, Overland Park, KS 66221, (913) 339-9356, www.acbsp.org.

Program description. The student who pursues Computer Science and Information Technology studies and gains experience with a variety of systems, applications, languages, and products. Graduates of any of the four concentrations will benefit from sustained growth in demand for highly skilled information technology workers. The concentrations allow for maximum flexibility within the curriculum while ensuring the student has adequate credentials in a particular segment of the information technology field. In addition, all Computer Science and Information Technology students complement their studies with a 135-hour internship at a selected site, which allows students to gain on-the-job experience prior to graduation.

Database Design and Development concentration. The Database Design and Development concentration equips students for successful employment in a database-intensive environment. Areas of emphasis include database design, Oracle applications and database management.

High Performance Computing concentration. The High Performance Computing concentration provides educational opportunities for future HPC field engineers in medicine, gaming, imaging, business and other areas. The goal of the concentration is to cater to the emerging trends in advanced computing as well as the contemporary and future human resource requirements of the information technology industry.

Networking and Communications Systems concentration. The Networking and Communications Systems concentration offers a core curriculum that provides the academic and technical background for individuals who wish to prepare for successful employment in network design and administration.

Programming concentration. The Programming concentration equips students for employment in a programming-intensive environment. Areas of emphasis include programming languages such as Visual Basic, Java, C++, and Perl.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities: Applications programmer, systems representative, product representative, maintenance programmer, programmer specialist, database programmer, programmer/analyst, research assistant, software developer, applications specialist, computer support specialist, high performance computing programming assistant, high per-

formance computing field engineer, security administration technician, network engineer/administrator, technical support specialist, systems engineer/administrator, cluster administrator, systems developer

Educational Objectives. After successfully completing the Computer Science and Information Technology program, the graduate will be equipped to do the following:

- I. Express ideas and facts in written and verbal communications and work independently or as a team member.
- II. Understand and use computers, peripherals and related equipment such as networks, clusters, and other emerging technologies.
- III. Understand terminology, numeric concepts, social/ethical implications and/or system concepts associated with the information technology field.
- IV. Understand and use applications software, operating systems and/or system-based products.
- V. Analyze problems, develop algorithms and implement solutions.
- VI. Effectively use computer languages, compilers, interpreters and assembler products to produce code and output which meet specified requirements.
- VII. Understand system and software development cycles, and use tools to develop and manage the cycles.
- VIII. Upgrade and develop skills that can be measured by real-world training standards as established by national tests, state standards, institutional goals, employers and advisory recommendations.
- IX. Use equipment and resources which are up-to-date, real-world and which represent current trends in the employment field.
- X. Develop a positive attitude towards standards, rules, expectations, work and learning.
- XI. Develop specific skills, understanding and knowledge which can be used at four-year colleges/universities and which can be applied to higher levels of learning.
- XII. Enhance creative and artistic talents appropriate to the computer science and information technology field.

Contact(s): Greg Walters, program coordinator, (865) 694-6656, gwalters@pstcc.edu

Computer Science and Information Technology/Database Design and Development Concentration—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

CSIT 1110	Introduction to Information Technology	4
CSIT 1510	Introduction to Programming Using Java	4
ENGL 1010	English Composition I	3
HUM *	Humanities/Fine Arts Elective	3
SPH 2100	Public Speaking	3

Semester II (Spring)

ECN 2010	Principles of Economics I	4
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CSIT 1520	Advanced Java Programming.....	4
CSIT 1810	Introduction to Database Design	4
MATH 1530	Elementary Probability & Statistics.....	3
<u>Semester III (Fall)</u>		
BA ¹	Business Administration Electives.....	6
CSIT 2425	SQL Applications Using Oracle.....	4
CSIT 2445	Oracle Application Development	
or CSIT 2465	Database Application Development.....	4
<u>Semester IV (Spring)</u>		
CSIT 2550	Advanced Database Management Systems	4
CSIT 2810	Systems Analysis & Design	4
CSIT 2820	Machine Organization	4
CSIT 2911	CSIT Internship	3
Total Credit Hours Needed for Graduation:		61

BA ¹ Business administration electives to be chosen from any ACC, FIN, MGT, MKT or WEB 2001, 2002, 2003

* See the General Education section of this Catalog for electives.

***Computer Science and Information Technology/
High Performance Computing Concentration—Courses and Course Sequence***

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

CSIT 1110	Introduction to Information Technology	4
CSIT 2410	Introduction to Linux	4
ENGL 1010	English Composition I	3
MATH 1530	Elementary Probability & Statistics.....	4

Semester II (Spring)

CSIT 1360	Introduction to Cluster Computing	4
CSIT 1730	Networking Fundamentals	3
CSIT 1810	Introduction to Database Design	4
CSIT 2411	Linux System Administration	4

Semester III (Fall)

BA ¹	Business Administration Elective	3
CSIT 2320	Advanced Cluster Computing	4
CSIT 2430	Introduction to Scripting Languages	4
HUM *	Humanities/Fine Arts Elective	3
SPH 2100	Public Speaking	3

Semester IV (Spring)

BA ¹	Business Administration Elective.....	3
CSIT 2911	CSIT Internship	3
ECN 2010	Principles of Economics I.....	4
ELEC ²	Guided Elective	4

Total Credit Hours Needed for Graduation: 61

BA ¹ Business administration electives to be chosen from any ACC, FIN, MGT or MKT courses

ELEC ² Guided elective chosen from CSIT 2330, 2340, 2475, 2476, 2630, 2635; EET 2715

* See the General Education section of this Catalog for electives.

Computer Science and Information Technology/Networking and Communications Systems Concentration—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

CSIT 1110	Introduction to Information Technology	4
CSIT 1710	A+ Computer Hardware	4
CSIT 1720	A+ Computer Software	4
MATH 1530	Elementary Probability & Statistics	3

Semester II (Spring)

CSIT 1730	Networking Fundamentals	4
CSIT 1810	Introduction to Database Design	4
ENGL 1010	English Composition I	3
HUM *	Humanities/Fine Arts Elective	3
SPH 2100	Public Speaking	3

Semester III (Fall)

BA ¹	Business Administration Elective	3
CSIT 2700	Windows Professional	4
CSIT 2750	Routing/Switching Configuration	4
CSIT 2770	Wireless Technology	4

Semester IV (Spring)

CSIT 2710	Windows Server	4
CSIT 2720	Network Security	3
CSIT 2911	CSIT Internship	3
ECN 2010	Principles of Economics I	4

Total Credit Hours Needed for Graduation: 61

BA ¹ Business administration electives to be chosen from any ACC, FIN, MGT or MKT courses

* See the General Education section of this Catalog for electives.

***Computer Science and Information Technology/
Programming Concentration—Courses and Course Sequence***

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

CSIT 1110	Introduction to Information Technology	4
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CSIT 1510	Introduction to Programming Using Java	4
ENGL 1010	English Composition I	3
HUM *	Humanities/Fine Arts Elective	3
SPH 2100	Public Speaking	3

Semester II (Spring)

CSIT 1520	Advanced Java Programming.....	4
CSIT 1810	Introduction to Database Design	4
ECN 2010	Principles of Economics I	4
MATH 1530	Elementary Probability & Statistics.....	3

Semester III (Fall)

BA 1	Business Administration Elective	3
CSIT 2	CSIT Application Elective	4
CSIT 3	CSIT Programming Electives.....	8

Semester IV (Spring)

BA 1	Business Administration Elective	3
CSIT 2810	Systems Analysis & Design	4
CSIT 2820	Machine Organization	4
CSIT 2911	CSIT Internship	3

Total Credit Hours Needed for Graduation: 61

- BA 1 Business administration electives to be chosen from any ACC, FIN, MGT, or MKT
- CSIT 2 CSIT application elective to be chosen from CSIT 2410, 2412, 2425, 2460, 2465, 2477, 2490
- CSIT 3 CSIT programming electives to be chosen from CSIT 2610, 2630, 2645, 2655, 2665, 2690

* See the General Education section of this Catalog for electives.

CRIMINAL JUSTICE

Program description. Through a cooperative arrangement between Pellissippi State Technical Community College and Walters State Community College in support of the criminal justice and fire protection students of Knox and Blount counties, students in these programs may complete their Associate of Applied Science degree in Criminal Justice by taking courses in their major at Walters State teaching sites and their general education at any Pellissippi State teaching site. The general education coursework can be transferred to Walters State to complete requirements for the Associate of Applied Science degree.

MARKETING (SEE BUSINESS ADMINISTRATION)

EARLY CHILDHOOD EDUCATION

Program description. The primary purpose of this program is to prepare students to enter the workforce in the field of early childhood education with the credential of being “highly qualified” as determined by the No Child Left Behind Act. The program includes theoretical and practical elements and features supervised classroom teaching to prepare early childhood education professionals to work effectively with children age birth to 9. The program continues to serve the educational needs stipulated by federal law for Tennessee’s Head Start teachers. The 1999 Federal Reauthorization Act for Head Start mandated that by 2003, at least 50

percent of all Head Start teachers have earned an associate's or higher degree in Early Childhood Education. Further, the U.S. Department of Labor has stated that openings for preschool teachers and child-care workers will increase faster than the average for all occupations through the year 2008. Men or women who obtain an associate's degree are considered "highly qualified" by federal standards and have a greater advantage when seeking employment opportunities.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities: Head start teacher or assistant teacher, child-care center teacher or assistant teacher, child-care center administrator, kindergarten or elementary school assistant, family child-care center teacher

Educational Objectives. After successfully completing the Early Childhood Education program, the graduate will be equipped to do the following:

- I. Be prepared for job entry or career advancement in the child care field.
- II. Use good verbal and written communication skills.
- III. Demonstrate understanding of fundamental child development principles.
- IV. Apply on-the-job the principles of good work habits.

Contact(s): Shari Lillestolen, (865) 539-7229, srlillestolen@pstcc.edu

Early Childhood Education—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ECEd 1010	Orientation to Early Childhood Education.....	2
ECEd 2010	Safe, Healthy Learning Environments	3
ECEd 2130	Clinical Practicum I	2
ENGL 1010	English Composition I	3
MATH *	Mathematics Elective	3-5

Semester II (Spring)

ECEd 2015	Early Childhood Curriculum	3
ECEd 2020	Infant, Toddler, Child Development.....	3
ECEd ¹	ECEd Elective	3
ENGL 1020	English Composition II	3
NSC *	Natural Sciences Elective.....	4

Semester III (Fall)

ECEd 2040	Family Dynamics & Community Involvement	3
ECEd 2060	Development of Exceptional Children.....	3
ECEd 2080	Language & Literacy Development in Early Childhood	3
ECEd 2085	Math & Science in Early Childhood	3
ECEd 2140	Clinical Practicum II	2

Semester IV (Spring)

ECEd 2070	Developmental Assessment	3
ECEd 2150	Clinical Practicum III.....	2

ECEd ¹	ECEd Elective	3
HUM *	Humanities/Fine Arts Elective	3
OST 1005	Word	
or OST 1211	Introduction to Software Applications	3
SBS *	Social/Behavioral Sciences Elective.....	3-4
Total Credit Hours Needed for Graduation:		60

ECEd ¹ ECEd electives to be chosen from ECEd 2030, 2050, 2090, 2100, 2110, 2120, 2230

* See General Education section of this Catalog for electives.

ELECTRICAL ENGINEERING TECHNOLOGY

Accreditation. Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.

Program description. The Electrical Engineering Technology program is designed to train individuals to function effectively as assistants to electrical engineers or independently as electrical/electronics technicians. The program prepares electrical engineering technicians to translate the engineer's designs into systems and projects, collect and analyze data, develop design layouts, inspect work, check and repair equipment and prepare reports for the engineering team. Electrical engineering technicians acquire a general education background, including mathematics and science, while studying electricity and electronics and associated technical applications. Upon completion of this program, the student will receive an Associate of Applied Science (A.A.S.) in Electrical Engineering Technology. If a baccalaureate degree in Engineering Technology is desired, an appropriate advisor can advise a student of colleges and universities that offer further education in engineering technology.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities: Associate engineering technician, communications technician, computer technician, electronics technician, industrial electronics technician, instrument technician, manufacturing technician, plant technician, service technician, systems application technician

Educational objectives. After successfully completing the Electrical Engineering Technology program, the graduate will be qualified to accomplish the following objectives related to electrical engineering technology:

- I. Function as a technically qualified electrical and electronic technician, capable of working with manufacturing, electrical, electronic, instrumentation and computer systems.
- II. Demonstrate critical thinking skills by applying the basic principles of electrical engineering technology to solve technical problems with minimum assistance or supervision.
- III. Effectively communicate using reading, writing and speaking skills in interpersonal and group environments.
- IV. Function in a team environment by contributing and respecting the ideas and attitudes of others and demonstrate the ability to provide leadership to a technical team.
- V. Demonstrate an understanding of ethical and professional conduct by applying good work habits.
- VI. Continue to participate in lifelong learning and maintain an awareness of global

issues in technology.

Program outcomes. Upon completion of the Electrical Engineering Technology program, the student will have demonstrated the ability to

- A. Analyze and solve complex electrical and electronic circuit problems.
- B. Use electrical and electronic measuring tools to acquire and interpret data to solve problems.
- C. Program microprocessor-based systems, such as microcontrollers and programmable logic controllers, as applied to manufacturing, electrical, electronic, instrumentation or computer systems.
- D. Apply creative ideas in solving electrical and electronic problems related to manufacturing, electrical, electronic, instrumentation and computer systems.
- E. Apply current knowledge in math and science to adapt to new applications used in manufacturing, electrical, electronic, instrumentation and computer systems.
- F. Work in a team environment.
- G. Develop and interpret visual information, produce written documents, deliver oral presentations and communicate with an audience.
- H. Continue education beyond the associate's level by having an awareness of the need to engage in lifelong learning.
- I. Understand and apply professional ethics to professional settings and relate to colleagues with respect.
- J. Develop an awareness of diversity and professional, societal, and global issues.
- K. Develop a commitment to produce quality work in a timely manner and an awareness of the need for continually improving technical skills and professional conduct.

Contact(s): Kenneth Swayne, program coordinator, (865) 694-6496,
keswayne@pstcc.edu

Electrical Engineering Technology—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

EET 1001	Introduction to EET	1
EET 1012	Electrical Circuits I W/Lab	3
ENGL 1010	English Composition I	3
PHIL 1030	Introduction to Philosophy	
or PHIL 2400	Introduction to Ethics	3
MATH 1730	Precalculus	5

Semester II (Spring)

EET 1022	Electrical Circuits II W/Lab	5
EET 1210	Active Devices I W/Lab	4
EET 1310	Digital Fundamentals W/Lab	4
MATH 1830	Basic Calculus & Modeling	4

Semester III (Fall)

CSIT 1050	Programming for Engineering Transfer	1
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EET 2220	Active Devices II W/Lab	4
EET 2312	Microprocessors I W/Lab.....	4
EET 1	EET Electives	6
PHYS 2010	Noncalculus Based Physics I	4
Semester IV (Spring)		
CHEM 1110	General Chemistry I	4
EET 2601	Major Projects	2
EET 1	EET Elective.....	2
SOC 1010	Introduction to Sociology	
or SOC 1020	Social Problems & Social Change	3
SPH 2100	Public Speaking	3
Total Credit Hours Needed for Graduation:		65

EET 1 Electrical Engineering Technology electives to be chosen from EET 2715, 2900, 2910, 2920, 2930 or as approved by an EET advisor

GENERAL TECHNOLOGY

Program description. The General Technology degree program is designed to allow the student maximum flexibility in designing an educational program that meets specific career-related objectives. Goals of the program are to provide a strong foundation in general education, including problem-solving skills, computer-utilization and functioning as a productive member of society, while giving the student the opportunity to select those courses most closely aligned to his/her personal career goals.

Designed as a cross-disciplinary program, the General Technology degree allows the student to combine engineering technology or business technology or computer technology programs to meet individualized career goals. The student will meet with an assigned advisor to develop an individualized sequence of courses.

Certificate of credit articulation. Successful completion of technical or institutional certificates of credit from Pellissippi State may apply for credit toward a General Technology degree. Programs that articulate include Local Area Network Operations/Management, Banking, Credit Union Management, Photography, Real Estate, Supervision and Surveying certificates.

Articulation from Tennessee Technology Centers to Pellissippi State. A student who has completed a diploma program at a Tennessee Technology Center (TTC) will receive credit toward the General Technology major by meeting the following requirements: (1) The student must meet all regular admission requirements. (2) The student must provide an official transcript from the TTC. (3) The student must meet all applicable requirements of the Developmental Studies Program as indicated by the appropriate placement test. (4) The student is required to complete general education requirements. (5) The student must complete 15 hours of college-level work in the appropriate concentration or in general education before being awarded credit for prior learning at the TTC.

Upon fulfillment of the requirements stated above, the student will receive 30 semester hours credit toward the Associate of Applied Science (A.A.S.) degree, General Technology major. Credit previously awarded for a diploma from a TTC will be posted on the transcript but will not count in the calculation of the student's grade point average.

Alcoa articulation. Students who have completed the appropriate portions of the ALCOA Electrical Apprenticeship Program may receive up to 25 semester hours of credit toward an A.A.S. in General Technology. The courses in the apprenticeship program that can be used for articulation are as follows: Construction Practices, Basic

Computers, Basic Electricity, AC Principles, Basic Electronics, Analog Electronics, Digital Electronics, Microprocessors, PLC, Process Control, Process Troubleshooting, Math, Blueprints and Schematics.

IBEW Articulation. Students who have completed or are currently enrolled in the IBEW Inside Wireman Program or any Department of Labor Electrical Apprenticeship may receive 30 semester hours credit towards an Associate of Applied Science (A.A.S.) degree in General Technology with an Electrical Construction concentration. For more information, inquire about the GET6 degree by contacting Dr. Chuck Wright at Pellissippi State at (865) 694-6511, cwright@pstcc.edu, or Melissa Parsly at the NJATC International Training Center (865) 380-9044, ext. 10.

Lockheed Martin Energy Systems (LMES) articulation. Students who complete ALL of the LMES Fabrication Division training programs in Basic CNC Programming will receive 25 semester hours credit toward the general technology degree. Courses that must be completed are: GE 2000 introduction level programming, advanced-level programming and supervisors’ training; maintenance procedures for the GE 2000 CNC, turret and shifter assembly; geometric alignment and repair; bearings (installation and maintenance); basic electronics (NC and CNC); fundamentals of scraping; laser measurement; and a minimum of two safety courses.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities, position titles and competencies gained will vary depending on the student's choice of major electives but might include sales associate/sales representative (business core), technician (varied technical fields), or clerk/receptionist (office systems core).

General information contact(s): Cynthia Dempster, dean of Business and Computer Technology (865) 694-6495, cdempster@pstcc.edu or Margaret Ann Jeffries, dean of Engineering and Media Technologies (865) 539-7084, mjeffries@pstcc.edu

General Technology—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. Specific course sequences and elective choices will vary depending on the student’s educational goals. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

BA 1	Business Administration Elective	3
COMP 2	Introductory Computer Course	3-4
ENGL 1010	English Composition I	3
MAJOR	Major Technology Electives.....	6

Semester II (Spring)

ENGL 2950	Business & Technical Writing	3
or ENGL 1020	English Composition II	3
MAJOR	Major Technology Electives.....	6
MATH or NS *	Mathematics or Natural Sciences Elective	3-5
SBS *	Social/Behavioral Sciences Elective.....	3-4

Semester III (Fall)

ELEC ³	Guided Elective	3
HUM *	Humanities/Fine Arts Elective	3
MAJOR	Major Technology Electives.....	6
SPH 2100	Public Speaking	3

Semester IV (Spring)

ELEC	Guided Elective	3
MAJOR	Major Technology Electives.....	12

Total Credit Hours Needed for Graduation: 60

BA ¹ Business administration elective to be chosen from any ACC, ADV, FIN, MGT or MKT courses

COMP ²

Introductory computer course to be chosen from CGT 1030, CID 1100, any CSIT, ENGT 1000, any OST (except OST 1100) or VPT 1030

ELEC ³ Guided electives to be approved by the appropriate dean

* See General Education section of this Catalog for electives.

HIGH PERFORMANCE COMPUTING (SEE COMPUTER SCIENCE AND INFORMATION TECHNOLOGY)

HOSPITALITY (SEE BUSINESS ADMINISTRATION)

INTERIOR DESIGN TECHNOLOGY

Program description. The Interior Design Technology (IDT) program provides students the solid design foundation needed to start working toward becoming a professional interior designer. The program prepares students for entry-level positions in residential design as well as sales positions related to interior design. Graduates are employed by interior design firms, furniture stores, flooring stores, paint and decorating centers, building centers, kitchen and bath design firms, and residential building contractors.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities: Design assistant, interior decorator, residential consultant, design sales associate

After successfully completing the Interior Design Technology program, graduates are prepared for advanced work in a four- or five-year interior design program or for immediate employment. Graduates of the IDT program are able to communicate a design through appropriate visual skills including hand drafting and sketching, CAD drafting, and other visualization methods. They enjoy working with people and the components of interior design. They are effective communicators who are organized, creative, and have the ability to follow through on all tasks.

Graduates of the program confer with clients to determine the purpose and function of the environment, style preferences, budget, types of construction, equipment to be installed and other factors that affect planning interior residential environments. They integrate findings with their knowledge of interior design and formulate plans to be practical, aesthetic and conducive to intended purposes including improving the life style of occupants. They advise clients on interior design factors, such as space planning, the

layout and utilization of furnishings and equipment, color schemes and coordination, and the selection of interior components. They estimate material requirements and costs, prepare drawings and materials for presentation to the client for approval and coordinate the implementation of all phases of a residential design project.

Educational Objectives. Graduates will be equipped to do the following:

- I. Understand fundamentals of art and design, theories of design and human behavior, and design-related history.
- II. Apply the knowledge, skills, processes and theories of interior design.
- III. Communicate effectively.
- IV. Design within the context of building systems and use appropriate materials and products.
- V. Apply the laws, codes, regulations, standards, and practices that protect the health, safety, and welfare of the public.

Contact(s): Margaret Ann Jeffries, program coordinator, mjeffries@pstcc.edu, (865) 539-7084; SueAnne Lewis, sblewis@pstcc.edu, (865) 694-6505; Diana Morrow, dwmorrow@pstcc.edu, (865) 539-7210; and Julie Shubzda, jmshubzda@pstcc.edu, (865) 539-7294

Interior Design Technology—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

IDT 1001	Introduction to Interior Design.....	3
IDT 1100	Materials & Process	3
IDT 1310	Fundamentals of Architectural Drafting.....	3
ENGL 1010	English Composition I	3
RCS 1200	Textiles for Interiors	3

Semester II (Spring)

ART 1110	2-D Design	3
ART 2950	Intermediate Design & Color	3
GEN ED 1	General Education Elective	3-5
IDT 1030	History of Interiors	3
MATH or NS *	Mathematics or Natural Sciences Elective	3-5

Semester III (Fall)

HUM *	Humanities/Fine Arts Elective	3
IDT 1360	AutoCAD & CAD Applications for Interior Design	3
IDT 1612	Architectural Sketching	3
IDT 2030	Modern Interiors & Architecture	3
IDT 2611	Kitchen & Bath Planning	3

Semester IV (Spring)

ELEC 2	Guided Elective	3
IDT 2360	Advanced AutoCAD for Interior Design	3
IDT 2630	Visualization Techniques	3

IDT 2640	Residential Design & Construction	3
SBS *	Social/Behavioral Sciences Elective.....	3-4

Total Credit Hours Needed for Graduation: 60

GEN ED ¹

General education elective to be chosen from one unduplicated course in the categories of Communication, Humanities/Fine Arts, Mathematics or Natural Sciences, or Social/Behavioral Sciences in the General Education section of this Catalog.

ELEC ² Guided elective to be chosen from IDT 2050, 2500 or 2900.

* See the General Education section of this Catalog for electives.

MANAGEMENT (SEE BUSINESS ADMINISTRATION)

MECHANICAL ENGINEERING TECHNOLOGY

Accreditation: Mechanical, Manufacturing and Quality Control concentrations are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.

Program description. Mechanical Engineering Technology offers a core curriculum in engineering technology with multiple concentrations: Manufacturing, Mechanical, Plastics Engineering Technology and Quality Control.

Manufacturing concentration. The Manufacturing concentration is designed for students interested in computer-assisted methods of manufacturing. Areas of emphasis include computer-based component programming, CNC machining (milling and turning), geometric dimensioning and tolerancing (GD&T) and computer-assisted measuring.

Mechanical concentration. The “traditional” Mechanical concentration is designed for students interested in technical assistance, design and maintenance technology. Areas of emphasis include materials, material testing, fluid mechanics with power applications, and applied mechanics.

Plastics Engineering Technology concentration. The Plastics Engineering Technology concentration is designed for students interested in the processing and manufacture of plastics, including injection molding, extrusion, blow molding and thermoforming. Emphasis is placed on types of plastics and their uses, plastics processing and process control, and component design and manufacture, along with production tool design, manufacture and testing.

Quality Control concentration. The Quality Control concentration is designed for students interested in production process control, testing and analysis of product quality. Areas of emphasis include dimensional metrology, product testing fundamentals, current quality control initiatives and methods, computer-assisted measuring and statistical process control (SPC).

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities: Engineering assistant, maintenance technician, CNC operator/programmer, manufacturing technician, CMM programmer, plastics process technician, quality technician

Contact(s): Pat Riddle, program coordinator, (865) 694-6514, priddle@pstcc.edu

Educational objectives. After successfully completing the Mechanical Engineering Technology program, the graduate will be qualified to accomplish the following objectives related to mechanical, manufacturing or quality control technologies:

- I. Apply basic engineering theories and concepts.
- II. Identify and solve work-related problems with minimum assistance.
- III. Operate equipment and instruments with a high degree of skill.
- IV. Communicate effectively.
- V. Apply the principles of good work ethics.
- VI. Obtain gainful employment in the mechanical engineering technology discipline or matriculate to a four-year program in engineering technology.

Program outcomes. Upon completion of the Mechanical Engineering Technology program, the student will have demonstrated the ability to

- A. Apply the knowledge of mathematics, science and engineering technology.
- B. Use the techniques and modern engineering tools needed for engineering technology practices.
- C. Identify, formulate and solve engineering technology-based problems.
- D. Design and conduct experiments, as well as analyze and interpret collected data.
- E. Design or fabricate a system, subsystem, component or process to meet specified needs.
- F. Read and extract information from manuals, journals and other discipline literature.
- G. Communicate effectively, including verbal, writing and graphical skills.
- H. Function and contribute positively in team situations.
- I. Comprehend social, professional and ethical responsibilities, including development of a respect for diversity and other contemporary issues.
- J. Realize the impact of engineering technology solutions in a global and societal context.
- K. Realize the importance of a commitment to quality, timeliness and continuous improvement.
- L. Recognize the importance of lifelong learning.

***Mechanical Engineering Technology/Manufacturing Concentration—
Courses and Course Sequence***

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

CID 1100	Fundamentals of Technical Drawing W/Lab	3
ENGL 1010	English Composition I	3
ENGT 1000	Engineering Technology Applications & Communications.....	4
MATH 1730	Precalculus	5
MET 1020	Shop Practices	4

Semester II (Spring)

MET 1012	Materials & Manufacturing Processes	4
MET 2310	Geometrics & Coordinate Measuring	4
MET 2700	CNC Milling.....	4
PHYS 2010	Noncalculus Based Physics I	4
<u>Semester III (Fall)</u>		
EET 1012	Electrical Circuits I W/Lab	3
MATH 1530	Elementary Probability & Statistics	
or MATH 1830	Basic Calculus & Modeling	3-4
MET 1040	Applied Statics	3
MET 2720	CNC Turning	4
<u>Semester IV (Spring)</u>		
CHEM 1110	General Chemistry I	4
MET 1051	Strength of Materials	4
MET 2740	Advanced CNC Machining	2
PHIL 2400	Introduction to Ethics.....	3
SOC 1010	General Sociology	
or SOC 1020	Social Problems & Social Change	3
Total Credit Hours Needed for Graduation:		64

***Mechanical Engineering Technology/Mechanical Concentration—
Courses and Course Sequence***

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

<u>Semester I (Fall)</u>		
CID 1100	Fundamentals of Technical Drawing W/Lab	3
ENGL 1010	English Composition I	3
ENGT 1000	Engineering Technology Applications & Communications.....	4
MATH 1730	Precalculus	5
MET 1020	Shop Practices	4
<u>Semester II (Spring)</u>		
ET 1	Engineering Technology Elective	3
MET 1012	Materials & Manufacturing Processes	4
MET 1040	Applied Statics	3
PHYS 2010	Noncalculus Based Physics I	4
<u>Semester III (Fall)</u>		
EET 1012	Electrical Circuits I W/Lab	3
MATH 1530	Elementary Probability & Statistics	
or MATH 1830	Basic Calculus & Modeling	3-4
MET 1051	Strength of Materials	4
MET 2020	Fluid Mechanics & Power Applications	4
<u>Semester IV (Spring)</u>		
CHEM 1110	General Chemistry I	4
ET 1	Engineering Technology Elective	3
MET 2025	Applied Mechanics.....	4

PHIL 2400	Introduction to Ethics	3
SOC 1010	General Sociology	
or SOC 1020	Social Problems & Social Change	3
Total Credit Hours Needed for Graduation:		64

ET ¹ Approval by MET advisor required

***Mechanical Engineering Technology/Plastics Engineering Technology Concentration—
Courses and Course Sequence***

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ENGL 1010	English Composition I	3
ENGT 1000	Engineering Technology Applications & Communications	4
MATH 1730	Precalculus.....	5
MET 1020	Shop Practices	4

Semester II (Spring)

CID 1100	Fundamentals of Technical Drawing W/Lab	3
MATH 1530	Elementary Probability & Statistics	3
MET 1012	Materials & Manufacturing Processes	4
MET 1040	Applied Statics	3
PHYS 2010	Noncalculus Based Physics I	4

Semester III (Fall)

MET 1051	Strength of Materials	4
MET 2700	CNC Milling.....	4
MET 2910	Plastics Processing W/Lab	4
MET 2920	Part & Tool Design.....	4

Semester IV (Spring)

CHEM 1110	General Chemistry I	4
EET 2920	Programmable Controllers	2
HUM *	Humanities/Fine Arts Elective	3
MET 2930	Part & Tool Manufacture	4
SBS *	Social/Behavioral Sciences Elective.....	3-4

Total Credit Hours Needed for Graduation: 65

* See the General Education section of this Catalog for electives.

***Mechanical Engineering Technology/Quality Control Concentration—
Courses and Course Sequence***

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

CID 1100	Fundamentals of Technical Drawing W/Lab	3
ENGL 1010	English Composition I	3

ENGT 1000	Engineering Technology Applications & Communications.....	4
MATH 1730	Precalculus	5
MET 1020	Shop Practices	4
<u>Semester II (Spring)</u>		
MATH 1530	Elementary Probability & Statistics.....	3
MET 1012	Materials & Manufacturing Processes	4
MET 2800	Fundamentals of Testing	3
PHYS 2010	Noncalculus Based Physics I.....	4
<u>Semester III (Fall)</u>		
EET 1012	Electrical Circuits I W/Lab	3
MET 1040	Applied Statics	3
MET 2810	Destructive & Nondestructive Testing	3
PHIL 2400	Introduction to Ethics.....	3
<u>Semester IV (Spring)</u>		
CHEM 1110	General Chemistry I.....	4
MET 1051	Strength of Materials	4
MET 2310	Geometrics & Coordinate Measuring	4
MET 2820	Statistical Process Control	4
SOC 1010	General Sociology	
or SOC 1020	Social Problems & Social Change	3
Total Credit Hours Needed for Graduation:		64

MEDIA TECHNOLOGIES

Program description. The Media Technologies program encompasses related career-technical disciplines in four general concentrations: Communication Graphics Technology, Photography, Video Production Technology and Web Technology. Students will earn a degree in a cross-disciplinary environment that reflects the trend in industry. The program employs instructors with years of practical experience and is guided by working professionals.

The Media Technologies program is designed to offer greater flexibility to students who can, working with an advisor, design a custom curriculum best suited to their needs and interests. The program offers certificates for those needing broader, deeper and/or upgraded training. To learn more about these options, see the Institutional Certificates section of this Catalog.

Communication Graphics Technology concentration. The Communication Graphics Technology concentration educates students in the art of visual communications. The student receives hands-on training in visual fundamentals, problem-solving and visual/verbal concept development for advertising, graphic design, and illustration. Emphasis is placed on the use of computer-enhanced technology and contemporary software applications throughout the program to support the development of professional portfolios. Career opportunities typically include work with the following: design consulting firms, advertising agencies, electronic prepress service bureaus, media outlets and printing companies, in-house agencies, Web page design and development firms, and freelance practice.

Photography concentration. The Photography concentration is designed for the individual interested in a career in photography as a staff photographer for a publication,

business or industry; photofinishing technician; digital imaging technician, photographic support industry personnel; freelance photographer; or studio owner/manager. Electives allow the student to specialize in commercial photography, photojournalism, portraits, weddings or photofinishing.

Video Production Technology concentration. The Video Production Technology concentration offers condensed but intensive hands-on experience with industry-standard equipment and processes. Students learn to work in a broadcast studio and on location. They use commercially popular analog and digital equipment and software. They are offered basic and advanced training in scriptwriting, audio recording and mixing, electronic cinematography and lighting, producing, directing, budgeting and computer applications. Typical job opportunities include videographer, editor, video illustrator and production assistant.

Web Technology concentration. The Web Technology concentration offers a degree built around Certified Internet Web Professional certification that validates students' competency in information technology industry standards and proves their knowledge of leading hardware and software technology. The College currently offers courses that lead to Master CIW Designer and Master CIW Web Site Manager certifications. These national certifications are built into the associate's degree and Web certificates. These IT professionals develop and maintain Web sites using authoring and scripting languages, create content and digital media, manage and deploy e-business solutions servers, manage Web servers and maintain Web sites for small- to large-scale enterprises. The concentration is delivered completely over the Internet, enabling individuals to have greater access and opportunity to fill IT-based jobs. The College also serves as the regional online CIW Faculty Institute to train teachers of Web design courses. Typical job opportunities include: e-commerce specialist, Webmaster, Web site designer, Web site developer, online services manager and Web site manager.

Degree: Associate of Applied Science (A.A.S.)

Educational Objectives. After successfully completing the Media Technologies program, the graduate will be equipped to do the following:

- I. Create media that communicate the desired message to the intended audience.
- II. Use a wide variety of industry-standard equipment, techniques, software, hardware and materials to produce the appropriate content.
- III. Demonstrate various styles in communications media that display a grasp of both design and communication principles and techniques.
- IV. Demonstrate proficiency in the techniques and equipment that facilitate adaptation to constantly changing media.
- V. Understand and respect the rights and responsibilities of the artist, subject, client, user and employer, including intellectual property rights.
- VI. Create a portfolio demonstrating design and communication skills, technical competence, and industry standards and practices.

Contact(s): Communication Graphics Technology: David Gilbert, (865) 694-6750, dgilbert@pstcc.edu; Photography: Margaret Ann Jeffries, (865) 539-7084, mjefries@pstcc.edu; Video Production Technology: Ron Bellamy, (865) 694-6444, rbellamy@pstcc.edu; Web Technology: Gay Bryant, (865) 694-6488, gbryant@pstcc.edu

***Media Technologies/Communication Graphics Technology Concentration—
Courses and Course Sequence***

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ART 1011	Drawing I	3
CGT 1030	Introduction to Macintosh Graphic Design	3
CGT 1950	Design Fundamentals	3
ENGL 1010	English Composition I	3
MDT 1000	Introduction to Media Technologies	3

Semester II (Spring)

CGT 1040	Digital Photography	3
CGT 1105	Digital Graphic Design I	4
CGT 1110	Typography	3
CGT 1911	Portfolio	1
HUM *	Humanities/Fine Arts Elective	3

Semester III (Fall)

CGT 2005	Digital Graphic Design II.....	4
CGT 2040	Computer Illustration	3
CGT 2140	Desktop Publishing	3
GEN ED ¹	General Education Elective.....	3-5
MATH or NS *	Mathematics or Natural Sciences Elective	3-5

Semester IV (Spring)

CGT 2105	Digital Graphic Design III	4
MDT ²	Media Technologies Electives	6
MDT 2998	Media Technologies Internship	2
SBS *	Social/Behavioral Sciences Elective.....	3-4

Total Credit Hours Needed for Graduation: 60

GEN ED ¹

the General education elective to be chosen from one unduplicated course in the categories of Communication, Humanities/Fine Arts, Mathematics or Natural Sciences, or Social/Behavioral Sciences in the General Education section of this Catalog

MDT ² Media Technologies electives to be chosen from CGT 1510, 2045, 2050, 2160, 2240; PHO 2060; VPT 1030; WEB 2000, 2110, 2120, 2400 based

on students' career needs and interests. Electives must be approved by the student's advisor or the program coordinator. Some courses may require prerequisites.

* See the General Education section of this Catalog for electives.

**Media Technologies/Photography Concentration—
Courses and Course Sequence**

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

CGT 1030	Introduction to Macintosh Graphic Design	
or VPT 1030	Intro to Desktop Video/Audio	3
ENGL 1010	English Composition I	3
MATH or NS *	Mathematics or Natural Sciences Elective	3-5
MDT 1000	Introduction to Media Technologies	3
PHO 1000	Introduction to Photography	3

Semester II (Spring)

GEN ED 1	General Education Elective	3-5
HUM *	Humanities/Fine Arts Elective	3
MDT 2100	Photoshop Essentials	3
MDT 2	Media Technologies Elective	3
PHO 1100	Advanced Photographic Techniques	3

Semester III (Fall)

PHO 2060	Advanced Digital Imaging Techniques	3
PHO 3	Photography Electives	9
SBS *	Social/Behavioral Sciences Elective	3-4

Semester IV (Spring)

MDT 2800	Professional Practices.....	3
MDT 2998	Media Technologies Internship	2
MDT 2	Media Technologies Electives	9
PHO 2850	Photography Portfolio	1

Total Credit Hours Needed for Graduation: 60

GEN ED 1

General education elective to be chosen from one unduplicated course in the categories of Communication, Humanities/Fine Arts, Mathematics or Natural Sciences, or Social/Behavioral Sciences in the General Education section of this Catalog.

MDT 2 Media Technologies electives to be chosen from CGT 1105; PHO 2200, 2300, 2400, 2500; VPT 1030, 1045, 1400; WEB 2120, 2811 based on students' career needs and interests. Electives must be approved by the student's advisor or the program coordinator. Some courses may require prerequisites.

PHO 3 Photography electives to be chosen from JOU 2000, 2030; MGT 2000; MKT 2200; PHO 2100, 2200, 2300, 2400, 2500, 2700, 2950

* See the General Education section of this Catalog for electives.

**Media Technologies/Video Production Technology Concentration—
Courses and Course Sequence**

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ENGL 1010	English Composition I.....	3
MDT 1000	Introduction to Media Technologies	3
VPT 1030	Introduction to Desktop Video/Audio	3
VPT 1045	Technical Video Production	3

VPT 1090 Campus Broadcast I (Studio Operations)3

Semester II (Spring)

HUM * Humanities/Fine Arts Elective3
 VPT 1015 Sound Production3
 VPT 1210 Video Editing4
 VPT 1400 Scriptwriting for Mass Media3
 VPT 1500 Campus Broadcast II (Producing & Directing for TV).....3

Semester III (Fall)

GEN ED 1 General Education Elective.....3-5
 MATH or NS * Mathematics or Natural Sciences Elective3-5
 MDT 2 Media Technologies Elective3
 VPT 2330 Budgeted Production3
 VPT 2500 Campus Broadcast III (Electronic Field Production)3

Semester IV (Spring)

MDT 2998 Media Technologies Internship2
 MDT 2 Media Technologies Elective3
 SBS * Social/Behavioral Sciences Elective.....3-4
 VPT 2770 Documentary Production3
 VPT 2910 Campus Broadcast IV (Program Production Management)3

Total Credit Hours Needed for Graduation: 60

GEN ED 1

General education elective to be chosen from one unduplicated course in the categories of Communication, Humanities/Fine Arts, Mathematics or Natural Sciences, or Social/Behavioral Sciences in the General Education section of this Catalog

MDT 2 Media Technologies electives to be chosen from CGT 1040; MDT 2100; MUS 1300; PHO 2060; VPT 1020, 1050, 2015, 2215, 2400, 2660; WEB 2120 based on students' career needs and interests. Electives must be approved by the student's advisor or the program coordinator. Some courses

may require prerequisites.

* See the General Education section of this Catalog for electives.

***Media Technologies/Web Technology Concentration—
Courses and Course Sequence***

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor. This program may be completed totally online, with most of the courses offered in a traditional format as well (with the exception of CSIT 1810 and 2880, which are offered in traditional format only).

Semester I (Fall)

ENGL 1010 English Composition I3
 HUM * Humanities/Fine Arts Elective3
 MDT 1000 Introduction to Media Technologies.....3
 SBS * Social/Behavioral Sciences Elective3-4

WEB 2001	Web Page Design I—HTML Coding	1
WEB 2002	Web Page Design II—Graphics	1
WEB 2003	Web Page Design III—Site Building	1

Semester II (Spring)

MATH or NS *	Mathematics or Natural Sciences Elective	3-5
MDT 2100	Photoshop Essentials	3
WEB 2200	Internet Technologies (CIW)	3
WEB 2291	CIW Foundations Certification.....	1
WEB 2300	CIW JavaScript Fundamentals	3
WEB 2391	CIW JavaScript Fundamentals Certification	1

Semester III (Fall)

ELEC 1	Guided Electives	4
MDT 2998	Media Technologies Internship.....	1
WEB 2000	Dreamweaver/Fireworks	3
WEB 2110	Flash.....	3
WEB 2350	XML.....	3
WEB 2812	Advanced Web Page/Site Design	3

Semester IV (Spring)

ELEC 1	Guided Electives	4
GEN ED 2	General Education Elective.....	3-5
MDT 3	Media Technologies Elective	3
WEB 2400	Web Project Management.....	3
WEB 2902	Web Team Practicum	1

Total Credit Hours Needed for Graduation: 60

ELEC 1 Students planning to pursue a career in a **Web design field** need the following electives in the order listed:

WEB 2210	CIW Site Designer.....	3
WEB 2292	CIW Site Designer Certification.....	1
WEB 2220	CIW E-Commerce	3
WEB 2293	CIW E-Commerce Certification	1

Students planning to pursue a career in a **Web application developer field** need the following electives in the order listed:

CSIT 1810	Introduction to Database Design.....	4
WEB 2603	Server-Side Web Development (PHP/ASP).....	3

GEN ED 2

General education elective to be chosen from one unduplicated course in the categories of Communication, Humanities/Fine Arts, Mathematics or Natural Sciences, or Social/Behavioral Sciences in the General Education section of this Catalog.

MDT 3 Media Technologies electives to be chosen from CGT 1030, 1040; PHO 1000, 2060; VPT 1015, 1030, 1045; WEB 2120, 2401, 2501, 2601, 2691, 2811 based on student’s career needs and interests. Electives must be approved by the student’s advisor or the program coordinator. Some courses may require prerequisites.

* See the General Education section of this Catalog for electives.

**NETWORKING AND COMMUNICATIONS SYSTEMS TECHNOLOGY
(SEE COMPUTER SCIENCE AND INFORMATION TECHNOLOGY)**

NURSING

Program description. Through a cooperative arrangement between Pellissippi State and Roane State Community College, students may pursue a degree in Nursing through the Tennessee Board of Regents Magnolia Avenue Nursing Center located on Pellissippi State's Magnolia Avenue Campus. Prerequisite courses are provided by Pellissippi State in a variety of formats and at different locations.

Once accepted into the competitive Nursing program, students follow the required schedule of Roane State nursing courses offered over four semesters of study. The program emphasizes patient-centered approaches to nursing care and includes clinical application of nursing theory and principles.

Upon successful completion of the program, the student will be awarded an Associate of Applied Science in Nursing by Roane State and will become eligible to take the state board examination to become a registered nurse (RN). The graduate nurse is able to provide highly skilled nursing care for patients and families in a variety of health-care delivery settings.

In addition, Pellissippi State offers prerequisite courses for several other area nursing programs, including the associate degree RN programs at Walters State Community College, Lincoln Memorial University, and the BSN (RN) programs at University of Tennessee, East Tennessee State University, Tennessee Wesleyan College and Carson-Newman College.

Contact(s): Susan McMahan, program coordinator for Pre-nursing Education at Pellissippi State, (865) 539-7050, smcmahan@pstcc.edu

OFFICE SYSTEMS TECHNOLOGY

Program description. The Associate of Applied Science degree in Office Systems Technology offers a core curriculum that provides an academic/technical foundation for individuals who wish to prepare for positions in business and industry using personal computer applications and office skills. During the last semester of the two-year curriculum, office skills will be assessed using an exam, the Office Proficiency Assessment and Certification (OPAC), developed by the International Association of Administrative Professionals. The OPAC exam uses industry-accepted testing and validation techniques. It measures proficiency and knowledge in computer software, keyboarding, clerical, financial and professional areas. Students may choose to certify based on the results of the exam.

Holders of the Certified Professional Secretary (CPS) certification may receive credit for 16 semester hours at Pellissippi State by presenting proof that they have passed all parts of the exam and have successfully completed 12 semester hours at Pellissippi State. Part or all of these credits count toward a degree at Pellissippi State (depending on the program chosen). See the Admissions and Registration Information section for additional information on CPS credits.

Business concentration. The Business curriculum is designed to update the skills required in the changing office environment and to enhance the training required for traditional office careers. Courses allow for specialized training for work environments using the newest hardware and software for business information work centers as well as professional word processing, desktop publishing applications and Web pages.

Health Care Office Administration concentration. This curriculum provides a course of study for individuals who wish to prepare for positions in a medical office. Courses allow for specialized training in medical terminology, coding, and insurance using the latest hardware and software for offices as well as professional word processing applications.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities: Administrative assistant, clerk/receptionist, coding, billing and insurance specialist, computer applications specialist, desktop publishing specialist, medical office administrator, medical transcriptionist, office manager, word/information processing supervisor

Educational Objectives. After successfully completing the Office Systems Technology program, the graduate will be equipped to do the following:

- I. Use computer application programs.
- II. Keyboard accurately.
- III. Use correct terminology specific to their field.
- IV. Communicate effectively.
- V. Use reference materials.
- VI. Show a positive attitude and work ethic.
- VII. Transcribe dictation.
- VIII. Work independently with a network of individuals and also function within a work team.
- IX. Use proofreading skills involving grammar, punctuation and language arts.
- X. Organize work and follow time and records management techniques.
- XI. Adapt to changes in the work environment; develop problem-solving skills.
- XII. Use the Internet for research.

Contact(s): Janice Wade, program coordinator, (865) 694-6656, jwade@pstcc.edu

Office Systems Technology/Business Concentration—Courses and Course Sequence

Special note: All Business and Computer Technology students who do not type 28 words per minute must enroll in OST 1100. All OST students are required to take the Office Proficiency Assessment and Certification (OPAC) exam before graduating.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ENGL 1010	English Composition I	3
HUM *	Humanities/Fine Arts Elective	3
MGT 2000	Principles of Management	3
OST 1005	Word	3
SPH 2100	Public Speaking	3

Semester II (Spring)

ECN 2010	Principles of Economics I	4
MKT 2420	Customer Service	3

OST 1006	PowerPoint CBT	1
OST 1105	Speed & Skillbuilding.....	3
OST 2621	Excel.....	3
WEB 2001	Web Design I—HTML Coding	1
WEB 2002	Web Design II—Graphics	1

Semester III (Fall)

ACC 2000	Principles of Accounting I	3
MGT 2100	Information Systems	3
OST 2006	Advanced Word	3
OST 2120	Document Design & Editing	3
OST 2340	Records Management.....	3

Semester IV (Spring)

MATH 1530	Elementary Probability & Statistics.....	3
OST 2010	Office Proficiency Assessment & Certification	1
OST 2015	Office Integration	3
OST 2302	OST Internship	2
OST 2360	Business Communications	3
OST 2600	Access.....	3

Total Credit Hours Needed for Graduation: 61

* See the General Education section of this Catalog for electives.

***Office Systems Technology/Health Care Office Administration Concentration—
Courses and Course Sequence***

Special note: All Business and Computer Technology students who do not type 28 words per minute must enroll in OST 1100. All OST students are required to take the Office Proficiency Assessment and Certification (OPAC) exam before graduating.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ENGL 1010	English Composition I	3
MATH 1530	Elementary Probability & Statistics	3
MGT 2000	Principles of Management	3
OST 1005	Word	3
OST 2910	Medical Terminology I	4

Semester II (Spring)

ECN 2010	Principles of Economics I	4
MKT 2420	Customer Service.....	3
OST 1003	Excel I CBT.....	1
OST 1105	Speed & Skillbuilding.....	3
OST 2920	Medical Terminology II	4

Semester III (Fall)

ACC 2000	Principles of Accounting I.....	3
OST 2340	Records Management.....	3

OST 2935	Medical Transcription	3
OST 2940	Medical Insurance Coding	3
SPH 2100	Public Speaking	3

Semester IV (Spring)

HUM *	Humanities/Fine Arts Elective	3
MGT 2030	Team Leadership	3
OST 2010	Office Proficiency Assessment & Certification	1
OST 2925	Medical Practicum	2
OST 2945	Insurance Billing & Coding	3
OST 2950	Health Care Insurance Survey	3

Total Credit Hours Needed for Graduation: 61

* See the General Education section of this Catalog for electives.

PARALEGAL STUDIES

Accreditation: The Paralegal Studies program is approved by the American Bar Association.

Program description. A paralegal works in a law office under the direct supervision of an attorney doing legal work such as drafting legal documents and doing file organization, legal research, investigations, and office management. The Paralegal Studies program offers a core of general education and a core of legal specialty courses designed for paralegals. Although paralegals are not permitted to practice law, they can, while working under the supervision of an attorney, perform many law office tasks once done solely by an attorney.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities: Law firms, legal aid services, corporate law departments, insurance and accounting firms, real estate and title companies, government legal departments

Educational Objectives. After successfully completing the Paralegal Studies program, the graduate will be equipped to do the following:

- I. Understand and apply principles of law and legal ethics.
- II. Demonstrate entry-level employment skills acquired through the legal specialty courses.
- III. Demonstrate analytical and problem-solving skills.
- IV. Demonstrate effective verbal and written communication.
- V. Demonstrate an understanding and practical application of law-office management and related computer applications in the legal environment.

Contact(s): Arlene Cleveland, program coordinator, (865) 971-5225, acleveland@pstcc.edu; Elizabeth McCowan, eimccowan@pstcc.edu; Paralegal Studies, (865) 971-5217

Paralegal Studies—Courses and Course Sequence

Special note: All Business and Computer Technology students who do not type 28 words per minute with five or fewer errors must enroll in OST 1100. Only students with college-level English skills (i.e. those eligible to enroll in ENGL 1010) may enroll in LAW courses.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student's responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ENGL 1010	English Composition I.....	3
LAW 1000	Introduction to Law & Ethics.....	3
MATH *	Mathematics Elective	3-5
OST 1211	Introduction to Software Applications	3
SPH 2100	Public Speaking	3

Semester II (Spring)

+LAW 1050	Legal Writing & Analysis.....	3
+LAW 1060	Legal Research	3
+LAW 2100	Torts	3
LAW 1	LAW Elective	3
OST 2700	Legal Terminology & Transcription.....	3

Semester III (Fall)

ACC 2000	Principles of Accounting I	3
+LAW 2030	Property Law	3
+LAW 2210	Litigation Skills I	3
+LAW 2300	Contracts & UCC	3
SBS *	Social/Behavioral Sciences Elective.....	3-4

Semester IV (Spring)

HUM *	Humanities/Fine Arts Elective	3
+LAW 2220	Litigation Skills II	3
+LAW 2800	Legal Internship	3
LAW 1	LAW Elective	3
SBS *	Social/Behavioral Sciences Elective.....	3-4

Total Credit Hours Needed for Graduation: 60

LAW 1 LAW electives to be chosen from LAW 1020, 2040, 2110, 2120, 2600, 2620, 2900

+ Law specialty course

* See the General Education section of this Catalog for electives.

PHOTOGRAPHY (SEE MEDIA TECHNOLOGIES)

SECURITY ENGINEERING AND ADMINISTRATION TECHNOLOGY

Program description. Security Engineering and Administration Technology offers a cross-disciplinary program that provides an academic/technical foundation for individuals who wish to prepare for positions in security fields. Security Engineering and Administration Technology students complement their studies with an internship at a selected site that allows them to gain on-the-job experience prior to graduation.

The program is designed for students interested in the physical and personnel security. Areas of emphasis include investigation techniques, emergency planning, cyber-security, computer forensics and security management.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities: Career opportunities for graduates can be found in private business and industry, federal agencies, airports, public safety works, police agencies, and many other areas now regulated under the Department of Homeland Security.

Educational Objectives. After successfully completing the program, the graduate will be equipped to do the following:

- I. Demonstrate a practical and theoretical understanding of the process of organizational planning for physical, personnel and/or information security at strategic, tactical and operational levels.
- II. Critically analyze and articulate positions on the legal and ethical implications of and influences on security management and operations, including relevant codes of ethics and federal and state laws.
- III. Recognize, define and implement appropriate security solutions to real and anticipated threats.
- IV. Adapt to emerging developments and applications in the security industry.
- V. Work independently with a network of individuals and also function within a work team.
- VI. Communicate effectively and professionally both orally and in writing.
- VII. Qualify for entry-level positions or career advancement in security-related fields.

Contact(s): John Sterling, (865) 539-7272, jasterling@pstcc.edu

Security Engineering and Administration Technology—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

ENGL 1010	English Composition I	3
MATH or NS *	Mathematics or Natural Sciences Elective	3-5
SEAT 1000	Security Operations Administration	3
SEAT 1010	Computer Forensics	3
SEAT 1100	Investigation Techniques	3

Semester II (Spring)

HUM *	Humanities/Fine Arts Elective	3
SEAT 1300	Emergency Planning	3
SEAT 1500	Security Management I	3
SEAT 1700	Physical & Personnel Security.....	3
SEAT 1900	Legal Aspects of Security Administration.....	3

Semester III (Fall)

GEN ED 1	General Education Elective	3-5
SEAT 2010	Networks for Security Specialists	3
SEAT 2500	Security Management II.....	3
SEAT 2800	Professional Practice	3
SEAT 2	SEAT Guided Electives	3

Semester IV (Spring)

SBS *	Social/Behavioral Sciences Elective	3-4
SEAT 2510	Intrusion Detection & Countermeasures	3
SEAT 2900	SEAT Internship	3
SEAT 2	SEAT Guided Electives	6

Total Credit Hours Needed for Graduation: 60

GEN ED 1

General education elective to be chosen from one unduplicated course in the categories of Communication, Humanities/Fine Arts, Mathematics or Natural Sciences, or Social/Behavioral Sciences in the General Education section of this Catalog.

SEAT 2 Guided electives may be chosen from SEAT 2200, SEAT 2600 and any CSIT, EET or SEAT courses not already required for the degree. Electives must be approved by the student's advisor or the program coordinator. Some courses may require prerequisites.

* See the General Education section of this Catalog for electives.

VIDEO PRODUCTION TECHNOLOGY (SEE MEDIA TECHNOLOGIES)

WEB TECHNOLOGY (SEE MEDIA TECHNOLOGIES)