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PLEASE NOTE: This pdf contains only the Addendums to the Course Catalog Volume 32 Yellow Highlights indicate 2006 Catalog Addendum changes

Volume Number 32

2006-07

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# **Catalog Disclaimer**

This catalog contains information regarding Chattanooga State Technical Community College, which is current at the time of publication. It is not intended to be a complete description of all Chattanooga State's policies and procedures; nor is it intended to be a contract. This catalog and its provisions are subject to change at any time, and may be revised by Chattanooga State in the future without advance notice.

# http://www.chattanoogastate.edu or call toll free 1-866-547-3733

# **Career Programs**

## Chattanooga State Technical Community College

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# **Business & Information Technologies**

http://www.chattanoogastate.edu/Business\_Information/bimain.asp

# Call (423) 697-4441 or for Paralegal **Studies and Realtime Reporting** call (423) 697-4520

# Accounting Technology

Associate of Applied Science Degree

The Accounting Technology Associate of Applied Science degree includes instruction in accounting principles and theory, business law applications, tax accounting, payroll, computerized accounting information systems, budgeting and cost accounting, financial statement preparation and analysis, and financial planning. In learning the language of accounting, the degree will assist those employed in both small and large business entities to analyze business transactions, communicate information to management, handle compliance with governmental tax regulations, and effectively communicate the data gained in the accounting process.

# **Career Opportunities**

Accountant, bookkeeper, fixed asset accountant, billing and collections clerk, regulation compliance in banking and other industries, accounts receivable, payable and payroll entry level positions, paraprofessionals in accounting and tax preparation at bookkeeping or public accounting firms, cost accountant, and brokerage assistants.

SUMMARY OF REQUIRED HOURS

		Semeste	er Hours
Course No. Freshman	Course Title	FALL	SPR
BU 114,115	Principles of Accounting I, II	3	3
BU 211	Legal Environment of Business	3	
BU 212	Business Law		3
ENGL 1010	Composition I	3	
FP 101	Fundamentals of Financial Planning	3	
MATH 1530	Introductory Statistics		3
MATH 1710	Pre-Calculus I	3	
MG 103	Business Today - An Introduction		3
	Computer Elective		3
		15	15
Sophomore			
BU 185	Federal Taxes	3	
BU 204,205	Intermediate Accounting I, II	3	3
BU 210	Business Tax Reporting		3
BU 224	Cost & Budgeting	3	
BU 250,251	Accounting Information Systems I, II	3	3
BU 255	Professional Review in Accounting and Taxation		3
	Humanities/Fine Arts Elective		3
	Social/Behavioral Science Elective	_3	
	T ( ) ()	15	15
	Iotal Hours: 60		

# **Applied Technology**

**Associate of Applied Science Degree** 

The Applied Technology degree provides students who have successfully completed specialized training at a Tennessee Technology Center (previously called the Industrial Technology Center Division at Chattanooga State) or an apprenticeship program approved by the U.S. Department of Labor to advance their careers by completing concentrations in either technology management or technology education. Students admitted to these programs are awarded 30 semester hours of advanced placement credit upon completion of all transitional studies requirements and 15 hours of college credit with a GPA of 2.0 or above.

## **Admissions Criteria**

In order to be admitted to either of the concentrations in the Applied Technology Degree, a student must meet all admissions criteria for degree seeking students at Chattanooga State and 1) hold a certificate or diploma requiring at least 1,290 clock hours from Chattanooga State's Tennessee Technology Center Division or other Tennessee Technology Center OR 2) hold a certificate of completion from an apprenticeship program approved by the U.S. Department of Labor requiring at least 1,290 clock hours.

Regardless of the criteria used for admission, documentation must be provided at the time of admission. Applicants must meet all admission requirements for degree seeking status and remove Transitional Studies deficiencies, if any.

There are two concentrations within the Applied Technology major:

1. Technology Education 2. Technology Management Please see those listings as follows.

# 1. Technology Education Concentration Management

#### Associate of Applied Science Degree

The Technology Education concentration is intended for non-credentialed teachers in technical education programs at Tennessee Technology Centers, in high school technical education programs, and in proprietary technology schools. The program will provide an AAS degree, which is the minimum SACS-approved credential for faculty in such programs. To gain admission to this program, students must present evidence of education and/or training in a technical area as provided in the Admissions Guidelines for the Associate of Applied Technology Degree, shown above, OR submit a portfolio for review and approval by the Chattanooga State Credit for Life Experience Committee. Such portfolio must include a letter of review from a subject *matter expert in the area of technical training evaluating* the applicant's technical training and abilities. The portfolio composition, review and approval process will be governed by the policies of the Chattanooga State Credit for Life Experience Committee. Admitted students will be granted 30 hours of Advanced Placement credit upon completion of all transitional studies requirements and 15 hours of college credit with a GPA of 2.0 or above.

continued on next page

# **Career** Opportunities

Medical office manager, dental office manager, supervisory or management positions in the health care field

	SUMMARY OF REQUIRED HOURS	S	emester	Hours
Course No.	Course Title	FALL	SPR	SUM
	*Advanced Placement	24		
BU 114	Principles of Accounting I		3	
BU 211	Legal Environment of Business		3	
EC 211 or 212	Macro or Microeconomics		3	
ENGL 1010	Composition I	3		
MG 103	Business Today - An Introduction	3		
MG 114	Principles of Management	3		
MG 165	Business Mathematics	3		
MG 264	Human Resources Management		3	
SP 110	Fundamentals of Public Speaking			3
	Computer Elective		3	
	Humanities/Fine Arts Elective			3
	Math/Natural Science Elective	3/4		
	Total Hours: 60/61	39/40	15	6

\*To qualify for admission to this program, students must present proof of Education: 1) completion of a clinically-based health program consisting of a minimum of 24 semester credit hours OR 2) a diploma from a Tennessee Technology Center requiring at least 1,290 clock hours in a clinically-based health program AND current registration/certification/licensure/credentials from 1) the State of Tennessee, OR 2) the regulating authority in another state OR 3) a national credentialing authority (if applicable). Students who are interested in careers in the health care industry but lack this requirement should pursue the General Management concentration.

# 5. Office Management Concentration

#### Management

#### Associate of Applied Science Degree

The Office Management Program is designed to provide a two-year degree with emphases in legal, professional and medical training. This program is for those who desire skills needed in the workforce at large. All students entering this program must take the EMAT Exam and a typing test. Graduates may enter the workforce and proceed with further education or fully dedicate their efforts toward a career as an administrative professional.

## **Career** Opportunities

Executive Assistant, Administrative Assistant, Office Manager, Office Supervisor, Administrative Coordinator, Administrative Specialist, Assistant to Executive Title, Administrative Manager, Customer Service Representative, Administrative Associate, Executive/Secretary, Word Processing Specialist, Clerk/Typist, Medical Office Administrator, Legal Office, Legal/Medical Secretary

After completion of 12 semester hours of college level work at Chattanooga State, Certified Professional Secretaries (CPS) or Certified Administrative Professionals (CAP) may receive up to 15 hours of college credit, applicable toward the AAS degree in Office Management only. This credit may not duplicate or replace previously earned college credits. The student must present proof that all parts of the CPS or CAP exam have been passed and must be actively pursuing an Office Management major. The courses for which credit may be awarded are:

BU 114	Principles of Accounting I	3	
MG 114	Principles of Management	3	
OF 104	Business Communications I	3	
OF 105	Business Communications II	3	
OF 195	General Office Procedures	3	

#### SUMMARY OF REQUIRED HOURS

		Semest	er Hours
Course No. Freshman	Course Title	FALL	SPR
ENGL 1010	Composition I	3	
OF 103	Records Management/Calculators		3
OF 105	*Business Communications II		3
OF 114	**Keyboarding/Document Processing II	3	
OF 125,126	Word Processing I,II	3	3
OF 195	General Office Procedures	3	
	Humanities/Fine Arts Elective		3
	**Math Elective	3	
	Social and Behavioral Science Elective		3
		15	15
Sophomore			
BU 114	Accounting I	3	
MG 114	Principles of Management	3	
MG 264	Human Resources Management		3
OF 127	Desktop Publishing	3	
OF 205	Administrative Office Management	3	
OF 206	Office Administration Internship		3
SP 110	Speech		3
CS 293	Computer Applications in Management	3	
	***Directed Electives		6
	Total Hours: 60	15	15

\*Prerequisite: OF 113 or instructor's consent.

\*\*MATH 1530, Introductory Statistics is recommended.

\*\*\*Directed Electives for Areas of Emphasis:

Legal: LA 110 LA 130	Fundamentals of Law Legal Research
Medical: HE 103 HE 127	Medical Terminology Medicolegal, Ethical & Professional Concepts
<b>Professional:</b> BU 211 MG 160 MG 176 BU 250	Legal Environment of Business, AND Project Management, Customer Service Skills I, OR Accounting Information Systems I

# Media Technologies

Associate of Applied Science Degree There are three concentrations within the Media Technologies major:

- 1. Graphic Design Concentration
- 2. Media Technology Concentration

# 3. Web Based Design Concentration

Please see those listings as follows.

# 1. Graphic Design Concentration

Media Technologies

# Associate of Applied Science Degree

The graphic design concentration trains students for careers in advertising agencies, art services, department stores, printing industries, television, graphic arts industries, and in-plant or agency packaging services. Students will need to spend approximately \$200–\$250 for basic professional equipment the first year.

# **Career** Opportunities

Art director, production artist, graphic designer, illustrator, printer, printing, pre-press, service bureau 3 3

3

3

3

3 3

3

#### Career Opportunities

*Civil engineering technician, construction estimator, construction inspector, land surveyor, hydraulics technician, structural design technician, construction materials lab* 

tecnnician	SUMMARY OF REQUIRED HOURS	Semest	ar Hours
Course No. Freshman	Course Title	FALL	SPR
CI 164	Construction Estimating		3
CI 174	Surveying I		4
DD 124	*CAD Engineering Drawing II		3
ENGL 1010	Composition I	3	
ENGL 2710	Technical Reports		3
ET 115	Computers in Engineering Technology	3	
MATH 1710	Pre-Calculus I	3	
MATH 1720	Pre-Calculus II		4
PHYS 1030	Concepts of Physics	4	
	Humanities/Fine Arts Elective	3	
Sophomore		16	17
ĊI 224	Hydraulics & Hydrology	3	
CI 231	Construction Materials Testing	3	
CI 242	Structural Steel		3
CI 243	Reinforced Concrete		3
CI 274	Surveying II	4	
MATH 1910	Calculus w/Analytic Geometry I	4	
MD 134,242	Statics & Strength of Materials I, II	3	3
	Social/Behavioral Science Elective		3
	**Technical Elective		_3
*Prerequisite: DL	D 114. Total Hours: 65	17	15

\*\*DD, MD, or CI course.

# 2. Construction Engineering Technology Concentration

Engineering Technology

#### Associate of Applied Science Degree

The primary objective of this program is to provide the basic technical theory, principles, and practices to enable the graduate to work in the construction industry. Opportunities may be available with testing firms, materials suppliers, specialty contractors, construction safety, subcontractors, homebuilders, general contractors, land surveyors, and inspection service bureaus. The program is intended for a student planning on immediate employment as an engineering technician, but when the concentration is accredited by TAC/ABET it will provide 2+2 transfer to a baccalaureate program.

# **Career** Opportunities

*Construction - estimator, materials testing, inspector, supervision, safety; contractor, surveying, project planning, commerce provided using a com* 

	SUMMARY OF REQUIRED	HOURS	Semest	er Hours
Course No.	Course Title		FALL	SPR
Freshman				
CI 110	Construction Safety		3	
CI 116	Construction Planning & Scheduling			3
CI 164	Construction Methods & Estimating			3
CI 174	Surveying I			4
DD 124	*CAD Engineering Drawing II			3
ENGL 1010	Composition I		3	
ET 115	Computers in Engineering Technology	,	3	
MATH 1710	Pre-Calculus I		3	
MATH 1720	Pre-Calculus II			4
PHYS 1030	Concepts of Physics		_4	
Sophomore			16	17
CI 231	Construction Materials Testing		3	
CI 233	Contracts & Specifications		3	
CI 242 or CI 243	Structural Steel or Reinforced Concret	te		3
ENGL 2710	Technical Reports			3
MATH 1910	Calculus w/Analytic Geometry I		4	
MD 134,242	Statics & Strength of Materials I, II		3	3
	Humanities Elective		3	
	Social/Behavioral Science Elective			3
	**Technical Elective			_3
*Prerequisite: DD	114. Total Hours: 64		16	15

\*\*CI, DD, or MD course.

# 3. Manufacturing Engineering Technology Concentration

Engineering Technology Associate of Applied Science Degree

The Manufacturing Engineering Technology major provides graduates with a unique blend of theoretical and hands-on knowledge with computer integration in a manufacturing environment. This curriculum includes a background in mechanical/manufacturing engineering technologies and related theory, computer-aided design (CAD), computer numerical control (CNC), computeraided manufacturing (CAM), statistical process control (SPC), quality management and control, engineering management. Computer usage for process control and effective communication skills is emphasized along with practical skills for programming and operating technically sophisticated equipment.

#### **Career** Opportunities

With an A.A.S. degree in Manufacturing Engineering Technology you will become an integral member of the team needed by modern industrial firms. Your knowledge of production systems, automated equipment, system integration, process controls, quality control and managerial skills will help you perform many different duties including applications for computer integration, process setup and control, quality control. You will be prepared to enter jobs such as equipment troubleshooter, equipment builder, equipment installation technician, manufacturing or quality control specialist, plant supervisor and other operational or management positions. Other areas may include product planning, product design, or system design. Your skills will enable you to enter your chosen field and quickly become a member of a dynamic industry.

	SUMMARY OF REQUIRED HOURS	Semeste	er Hours
Course No.	Course Title	FALL	SPR
Freshman			
DD 124	CAD Engineering Drawing II		3
ENGL 1010	Composition I	3	
ENGL 2710	Technical Reports		3
ET 115	Computers in Engineering Technology	3	
MATH 1710	Pre-Calculus I	3	
MATH 1720	Pre-Calculus II		4
MD 184	Manufacturing Processes	3	
MD 254	Elements of Material Science		3
PHYS 1030	Concepts of Physics	4	
	Humanities/Fine Arts Elective		_3
Sophomore		16	16
EE 284	Electrical Technology for Mechanical		
	Engineering Technology	3	
MATH 1530	Introductory Statistics	3	
MD 134	Statics and Strength of Materials I	3	
MD 207,208	Numerical Control I, II	3	3
MD 226	Fluid Power		3
MD 294	Automated Manufacturing	3	
MD 295	Manufacturing Management		3
QA 240	Statistical Process Control	3	
	Social/Behavioral Science Elective		3
	*Technical Elective		_3
	Total Hours: 65	18	15

\*DD 214, DD 222, DD 227, or DD 243.

# 4. Mechanical Engineering Technology Concentration

#### Engineering Technology

Associate of Applied Science Degree

Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology

This program gives students a broad education in mechanical design, manufacturing processes, creation and utilization of mechanical power, thermosciences, heating,

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ventilation and air conditioning (HVAC) design, metals and special materials, and computer-aided drafting and design.

# **Career** Opportunities

Customer support technician, draftsman/designer, engineering assistant, HVAC technician, computer-aided draftsman/designer, industrial mechanics technician, metallurgical laboratory technician, mechanical engineering technician

SUMMARY OF REQUIRED HOURS

		Semeste	er Hours
Course No.	Course Title	FALL	SPR
Freshman			
CHEM 1010	Introduction to Chemistry I		4
DD 124	CAD Engineering Drawing II		3
ENGL 1010	Composition I	3	
ENGL 2710	Technical Reports		3
ET 115	Computers in Engineering Technology	3	
MATH 1710	Pre-Calculus I	3	
MATH 1720	Pre-Calculus II		4
MD 184	Manufacturing Processes	3	
MD 254	Elements of Material Science		3
PHYS 1030	Concepts of Physics	4	
Sanhamara		16	17
SUPRIONIONE EE 284	Electrical Technology for Mechanical		
LL 204	Engineering Technology for Mechanical	2	
MATU 1010	Coloulus w(Apolitic Cosmotrul	3	
MAIN 1910	Calculus w/Analytic Geometry I	4	2
MD 134,242	Statics and Strength of Materials I, II	3	3
MD 226	Fluid Power	0	3
MD 264	Thermodynamics T	3	
MD 274	Machine Design		3
	Humanities/Fine Arts Elective		3
	Social/Behavioral Science Elective	3	
	*Technical Elective		_3
	Total Hours: 64	16	15
*PHYS 1030			

\*DD 204, DD 214, DD 222, DD 227, or DD 243.

# 5. Motor Sports Engineering Technology Concentration

#### **Engineering Technology**

Associate of Applied Science Degree

This program meets the needs of those enthusiasts involved in motor Sports vehicle design and construction. Motor Sports is a \$475 billion a year industry and Chattanooga is surrounded by major and minor motor Sports tracks and each year is host to a number of racing events and shows. Car, boat, motorcycle, and ATV race enthusiasts are seeking training avenues for making their vehicle the fastest and best. Chattanooga State began a Motor Sports initiative in the fall 2005 semester, which has generated interest and demand for motor Sports welding, machining, and engine performance. The newly formed Motor Sports Club, a multidisciplinary student organization, is now the largest at Chattanooga State.

Because of the combination of hands-on skills in machining, welding and engine operations, plus extensive training in mechanical engineering technology theory and applications, the students should also find success in jobs in industrial maintenance and manufacturing. This is an area in which local industry has major needs.

# **Career** Opportunities

Integral member of the team needed by motor sportsrelated industries ranging from racing automobiles to dragsters, marine craft, and motorcycles

	SUMMARY OF REQUIRED HOURS		
		Semeste	er Hours
Course No.	Course Title	FALL	SPR
FIESHINAN	*Advanced Discoment	10	
104		12	2
DD 124	CAD Engineering Drawing II		2
ENGL 1010			3
EI IIS	Computers in Engineering Technology		3
MATH 1/10	Pre-Calculus I	3	
MATH 1720	Pre-Calculus II		4
MOTR 101	Introduction to Motor Sports		1
	Humanities/Fine Arts Elective	_	_3
Sonhomore		15	17
EE 201	Electrical Technology for Mechanical		
LL 204	Engineering Technology for Mechanical	2	
ENCL 2710	Tophnical Reports	3	
		3	2
MATH 1530	Statistics	•	3
MD 134	Statics and Strength of Materials I	3	•
MD 226	Fluid Power		3
MD 254	Elements of Material Science		3
MD 264	Thermodynamics I	3	_
MD 295	Manufacturing Management		3
PHYS 1030	Concepts of Physics	4	
	Social/Behavioral Science Elective		_3
		16	15

Total Hours: 63

\*Students must present evidence of education and/or training at time of admissions in accordance with the Tennessee Technology Center/AAS Degree Articulation policy. Admitted student will be granted 12 hours of Advance Placement upon completion of all transitional studies requirements and 15 hours of college credit with a GPA of 2.00 or above. This program is designed for students who completed the Motor Sports Vehicle Technology Certificate as well as Automotive Technology, Diesel Mechanic Technology, and Motorcycle & Marine Service Technology diplomas.

# Industrial Maintenance Technology

Associate of Applied Science Degree There are two concentrations within the Industrial Maintenance Technology major:

## 1. Chemical

## 2. Electromechanical

Please see those listings as follows.

# 1. Chemical Concentration

Industrial Maintenance Technology Associate of Applied Science Degree

*The associate degree program in industrial maintenance* technology (chemical concentration) prepares graduates for a position as a process operator/technician in a manufacturing facility. Students will gain an understanding of chemistry and chemical processes as well as blueprint reading, electrical and mechanical fundamentals, and computer skills. Emphasis is placed upon the understanding and troubleshooting of process systems. The program combines classroom study and practical hands-on experience. The courses in the program emphasize safe and efficient work practices, teamwork, communication skills, and real world case studies.

# **Career** Opportunities

Process operators/technicians in the chemical, polymer, pharmaceutical, plastics, food/beverage, water/sewage, and pulp/paper industries.

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## Chemical Concentration continued

	SUMMARY OF REQUIRED HOURS	Semeste	er Hours
Course No.	Course Title	FALL	SPR
Freshman			
CS 101	Computer Literacy		3
CT 111	Introduction to Process Technology	3	
CT 112	Industrial Mathematics	3	
CT 113	Industrial Chemistry		4
CT 121	Industrial Process Equipment		4
ENGL 1010	Composition I	3	
MATH 1530	Introductory Statistics	3	
MD 104	Blueprint Reading and Analysis	3	
OS 116	Industrial Maintenance Safety		3
	Humanities/Fine Arts Elective		3
Sonhomore		15	17
CT 122	Introduction to Quality Control	3	
CT 123	Introduction to Process Operations	4	
CT 124	Intro to Process Controls & Instrumentation		3
	*Science Elective	4	
	Social/Behavioral Science Elective		3
	**Technical Electives	3	8
	Total Hours: 60	14	14
*CHEM 1010 a	r PHYS 1030		

\*\*Selected from courses with the following prefixes: CI, CT, DD, EE, ET, EZ, MD, MN, MZ, PZ or QA.

# 2. Electromechanical Concentration

#### Industrial Maintenance Technology

#### Associate of Applied Science Degree

The associate degree program in electromechanical technology prepares graduates for a position as a maintenance technician in an environment where electrical machinery and electro-pneumatic systems are prevalent. Students will develop a wide variety of technical skills in electrical fundamentals, fluid power, mechanical systems, and computers. Emphasis is placed upon the understanding and troubleshooting of electromechanical systems. A comprehensive understanding of how these technical skills are linked together to create automated systems is developed so that the electromechanical technician will be able to install, troubleshoot, and repair the complex machinery used in business and industry.

## **Career** Opportunities

Maintenance technician in commercial and industrial settings such as utilities, hospitals, schools, and manufacturing facilities; building superintendent and maintenance supervisory positions

	SUMMARY OF REQUIRED HOURS	Semest	er Hours
Course No.	Course Title	FALL	SPR
CS 101	Computer Literacy	2	3
MATH 1530	Introductory Statistics	3	
MD 104 MN 102.112	Blueprint Reading and Analysis Electrical Fundamentals I. II	3	3
MN 103,113 OS 116	Mechanical Fundamentals I, II Industrial Maintenance Safety	3	3
	*Science Elective	15	$\frac{4}{16}$
Sophomore MN 215 MN 218	Maintenance Management & Organization	2	3
WIN 210	Hydraulics, Friedmatics, and Fuld Systems Humanities/Fine Arts Elective Social/Behavioral Science Elective	3	3
	**Technical Electives	8	9
	<b>T</b> ( ) ( )	14	15
	Iotal Hours: 60		

\*CHEM 1010 or PHYS 1030

\*\*Selected from courses with the following prefixes: CI, CT, DD, EE, ET, EZ, MD, MN, MZ, PZ or QA.

# **Liberal Arts**

# Call (423) 697-4774 or for Human Services Specialist call (423) 697-3127

# Early Childhood Education

#### Associate of Applied Science Degree

This program trains students to work in early childhood education (ages birth through eight). It includes theoretical and practical elements and features supervised classroom practice teaching. It does not lead to a teaching certificate or qualify graduates to teach in the public schools.

#### **Career Opportunities**

Child care teacher, \*child care director, family/group child care owner, school age care teacher, assistant director, teacher's assistant (Pre K-4), substitute teacher (public/ private), entry level position in designated child and family welfare agencies

\*This job also requires some successful job experience.

	SUMMARY OF REQUIRED HOURS	Semeste	er Hours
Course No.	Course Title	FALL	SPR
Freshman ECED 1010 ECED 2010 ECED 2015	Introduction to Early Childhood Education Safe, Healthy Learning Environments Early Childhood Curriculum	2 3	3
ECED 2020 ECED 2130 ENGL 1010	Clinical Practicum I Composition I	2 3	3
SP 110	Mathematics Elective Natural Science Elective	3	3 4 2
Conhomoro	Unrestricted Elective	13	$\frac{3}{16}$
ECED 2040 ECED 2060	Family Dynamics & Community Involvement Development of Exceptional Children	3	2
ECED 2070 ECED 2080 ECED 2085 ECED 2140	Language and Literature in Early Childhood Math and Science in Early Childhood Clinical Practicum II	3 3 2	5
ECED 2150 ENGL 2630	Clinical Practicum III Literature for Children *ECED Elective Humanities/Fine Arts Elective Social/Behavioral Science Elective	L	2 3 3 3
	Total Hours: 60	14	17
*Directed Elective	must be selected from:		2
ECED 203 ECED 205 ECED 209 ECED 210 ECED 212	<ul> <li>Infant &amp; Ioddler Care</li> <li>Psychomotor Development</li> <li>Creative Expression</li> <li>The Mentoring Teacher</li> <li>Administration of Child Care Programs</li> </ul>		3 3 3 2 <mark>2</mark>

#### Child Development Associate (CDA)

The CDA is a nationally recognized credential awarded by the Council for Professional Recognition to child care providers who have demonstrated their skill in working with young children. Holders of a current CDA credential may receive up to 9 hours of college credit, applicable toward the AAS degree in Early Childhood Education only. Such credit may not duplicate or replace previously earned college credits. The courses for which credit may be awarded are:

ECED 2010	Safe, Healthy Learning Environments	3
ECED 2015	Early Childhood Curriculum	3
ECED 2040	Family Dynamics & Community Involvement	3
ECED 2130	Clinical Practicum I	2

# **Human Services Specialist**

#### Associate of Applied Science Degree

The Human Services Specialist Program is designed to provide students with the appropriate knowledge and skills necessary to become competent in working with many human service agencies in the areas of mental health, aging, child care, homelessness, disabilities, poverty and drug abuse counseling.

If a baccalaureate degree is desired, the student should consult one of the Human Services faculty for information on how this program may articulate with a baccalaureate degree in Social Work.

## **Career Opportunities**

Mental health technician, youth worker, activity therapist, social services delivery worker, child care specialist, family services advocate, psychiatric technician, drug abuse counselor, adolescent counseling assistant, customer service representative

	SUMMARY OF REQUIRED HOURS	Semeste	r Hours
Course No.	Course Title	FALL	SPR
ENGL 1010, 1020 HR 101 HR 130	Composition I, II Introduction to the Field of Social Welfare Substance Abuse Theories	3 4 3	3
HR 205 HR 210	Interviewing and Interpersonal Skills Methods of Human Service Practice	-	4
PO 110 PY 101	Introductory Statistics or Mathematics Elective Introduction to American Government General Psychology	3	3
SO 110	Introduction to Sociology	$\frac{3}{40}$	10
Sophomore BIOL 1110	General Biology I or Natural Science Elective	16	16
EC 211	Principles of Economics I		3
HR 219 HR 220 HR 245	Family Systems Human Services Practicum Introduction to Counseling	3	6 3
PY 213 SO 216	Abnormal Psychology or Approved Psychology Elective Cultural Anthropology	3	3
	Total Hours: 60	13	15

# Associate of Science in Teaching

#### K-6 Curriculum

The Associate of Science Teaching Degree (AST) assists students to complete some of the professional teacher licensing standards at the community college level. Students who complete the degree requirements and graduate can transfer into a teacher education program in any TBR

university.	SUMMARY OF REQUIRED HOURS	Semeste	er Hours
Course No.	Course Title	FALL	SPR
Freshman ART 1030 or			
MUS 1030	Art Appreciation or Music Appreciation	3	
ECED 2060	*Development of the Exceptional Child	3	
ED 201	Foundations of Education	3	
ENGL 1010,1020	Composition I, II	3	3
GEOG 1025	World Geography		3
HIST 2010	United States History I	0	3
MATH 1410	Structure of Number System I	3	4
PSUI 1030	Fundamentale of Public Speaking		4
SF IIU	r undamentals of Fublic Speaking	15	16
Sophomore		15	10
BIOL 1110	General Biology		4
EDPY 207	Educational Psychology		3
ENGL 2110,2120 GEOL 1040 or	American Literature I, II	3	3
ESC 1110	Physical Geology or Environmental Science	4	
HIST 2020	United States History II	3	
MATH 1420	Structure of Number Systems II	3	
MATH 1530 or			
MATH 1710	Introductory Statistics or Pre-Calculus I		3
PO 110 or SO 110	Introduction to American Government or		
	Introduction of Sociology	3	
	Total Hours: 60	16	13
*Prereauisite: EC	ED 2060 - ECED 2020, 2040 or departmente	al consent.	

\*Prerequisite: ECED 2060 - ECED 2020, 2040 or departmental consent Additional Degree Requirements:

•"C" or better required for all courses and a 2.75 cumulative grade point average (GPA) for all college level work

Successful completion of Praxis I

•Satisfactory rating on an index of suitability for the teaching profession (procedure will be developed through collaboration between university and community college representatives)

# Math & Sciences

# Call (423) 697-4442

# **Veterinary Technology**

Associate of Applied Science Degree

The Veterinary Technology Program is a five semester Associate of Applied Science (A.A.S.) degree encompassing both general education requirements and veterinary technology knowledge and skills acquisition. The program is designed to prepare the student to become a licensed veterinary technician. The courses at Chattanooga State will make use of state-of-the-art facilities. Clinical experiences will occur in local veterinary clinics and hospitals.

## **Career Opportunities**

Career opportunities for licensed veterinary technicians include, but are not limited to, traditional private practices (small animal, large animal, and mixed), research facilities, zoos, aquariums, educational institutions, private industry and local, state, and federal government positions.

## **Admission Information**

Additional admission procedures are required for this program. Contact the Natural Sciences Department for application materials and other pertinent information. The application deadline is April 1 of the year in which fall admission is sought. Applications would be accepted after this deadline date only if there were not enough qualified applicants to fill the class.

NOTE: The program is not designed to meet educational requirements for those students desiring to transfer to a pre-veterinary program.

	SUMMARY OF REQUIRED HOURS	S	emester	Hours
Course No.	Course Title	FALL	SPR	SUM
Freshman BIOL 1110 CHEM 1110 ENGL 1010	*General Biology I **General Chemistry Composition I	4	4	
HE 103 PHIL 2230 SP 110	Medical Terminology Ethics Speech	3	3	3
VETT 1010 VETT 1015 VETT 1020	Introduction to Veterinary Technology Pharmacology & Calculations Animal Anatomy & Physiology	3	4	4
VETT 2000 VETT 2010	Laboratory Procedures Clinical Practicum I		4	4
Sophomore		13	15	11
BIOL 2230 VETT 2015	Microbiology Animal Nursing	4 4		
VETT 2016 VETT 2020 VETT 2020	Topics in Veterinary Technology Clinical Practicum II Clinical Practicum III	4	3	
VETT 2030 VETT 2040 VETT 2050	Anesthesia & Surgical Nursing Imaging	4	4	
	Social/Behavioral Sciences Elective	16	$\frac{3}{15}$	
Prerequisites:	Iotal Hours: 70			
*Remedial/Devel	opmental courses, if applicable.			

\*\*CHEM 1010 or equivalent and Math 1710.



Admission is based on college grade point averages, personal interviews, references, and evaluation of motivation and individual qualities needed to successfully complete the nuclear medicine technology program. Non-RT students must take the Hobet test.

All applicants must present postsecondary education credits for human anatomy and physiology, college algebra, written communications, general chemistry with lab, and physics (radiation physics preferred). Basic computer knowledge is also strongly recommended. Junior colleges, universities and postsecondary technical institutes may be used to earn these course prerequisites to study in nuclear medicine.

Contact the Allied Health Division office for application materials and other pertinent information. The application deadline for priority consideration is April 15. Applications received after the deadline will be accepted if space permits.

	SUMMARY OF REQUIRED HOURS			
		Se	Semester Hours	
Course No.	Course Title	FALL	SPR	SUM
NM 200	Introduction to Nuclear Medicine	2		
NM 201	Instrumentation and Statistics	3		
NM 205,215,225	Clinical Procedures I, II, III	2	4	6
NM 207,217,227	Practicum in Nuclear Medicine I, II, III	9	2	6
NM 208	Radiopharmacology	2		
NM 212	Physics and Radiation Biology of			
	Nuclear Medicine		4	
		18	10	12
	Total Hours: 40			

## For LPN, Surgical Technology and Medical Assistant See the Tennessee Technology Center, pages 49-50

# Nursing (RN)

Associate of Applied Science Degree Accredited by the National League for Nursing Accrediting Commission 61 Broadway, New York, New York 10006 1-800-669-1656

# Approved by the Tennessee Board of Nursing

The Nursing Program prepares individuals to be providers and managers of nursing care and members of the nursing discipline. Graduates use a clinical decision making process to provide care to diverse individuals across the life-span.

Following acceptance into a nursing class, the day program includes a sequence of four clinical courses that can be completed in two academic years. A new day class is accepted each fall. The night program includes five clinical courses and takes two and one-half years to complete. New night classes are accepted every three years. The next class is fall 2007. A minimum grade of "C" must be earned in all courses included in the summary of required hours. Contact the Nursing Program office or nursing web site for detailed information on program policies (Nursing Program Handbook) or for information about admission, readmission, transfer from an accredited nursing program, and articulation with baccalaureate programs.

#### **Career Opportunities**

Hospitals, physician's offices, home health care agencies, nursing homes

#### **Admission Information**

Additional admission procedures are required for this program and may include college level prerequisite courses, e.g. CHEM-1010 or equivalent. Contact the Nursing Program office or nursing web site for application materials and other pertinent information. Application deadline is March 15.

# Day Program

	Day Program			
Prerequisites	SUMMARY OF REQUIRED HOURS			
Remedial/developr	nent courses, if applicable			
CHEM 1010 or equ	uivalent	Se	emester	Hours
Course No. Freshman	Course Title	FALL	SPR	SUM
BIOL 1430 BIOL 2010,2020 ENGL 1010	Nutrition Human Anatomy and Physiology I, II Composition I	3 4	4	3
NS 119,128 PY 101 PY 217	Nursing I, II General Psychology Human Growth and Development	9 3	9 3	
	*Mathematics Elective		16	<u>3</u>
Sophomore BIOL 2230 NS 238,249	Microbiology Nursing III, IV Humanities/Fine Arts Elective Total Hours: 66	4 9 13	9 <u>3</u> 12	
	Night Program			
	SUMMARY OF REQUIRED HOURS			
Prerequisites Remedial/developr CHEM 1010 or equ	nent courses, if applicable uivalent			
BIOL 2010, 2020 (A BIOL 1430 (Nutritic BIOL 2230 (Microb	Anatomy and Physiology I, II) on) iology)	8 3 4		
	Prerequisite Total Hours: 15			
Course No.	Course Title	Se FALL	emester SPR	Hours SUM
ENGL 1010	Composition I	_	_	3

Freshman		ITALL	OFIX	001
ENGL 1010	Composition I			3
NS 110, 120	Night Nursing I, II	7	7	
PY 101	General Psychology		3	
PY 217	Human Growth and Development	3		
		10	10	3
Sophomore				
NS 210,220	Night Nursing III, IV	7	7	
	Humanities Elective	3		
	*Math Elective		3	
		10	10	
NS 230	Night Nursing V	8		
	Total Hours: 66			

\*Recommended: MATH 1010 MATH 1530 or MATH 1710

MATH 1410 not acceptable for Nursing/Allied Health Programs.

# Nursing (RN)

## **LPN Transition Program**

The LPN Transition Program offers an accelerated curriculum track for LPNs to pursue the Associate of Applied Science Degree in Nursing and RN licensure. The associate degree nursing curriculum is adapted to recognize the knowledge and skills of the licensed practical nurse. All first year general education and support courses must have been completed prior to enrollment in NS 024 (Nursing Transition). Upon successful completion of NS 024, LPNs will be awarded credit for NS 119, 128 in the day program or NS 110 and 120 in the night program and progress into the second year of the nursing program.

continued on next page

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# **Regents Online Degree Programs**

# Chattanooga State Technical Community College

2006-07



http://www.tn.regentsdegrees.org or call toll free 1-423-697-4492

# **Regents Online Degree Programs—Associate's and Bachelor's**

Beginning Fall 2001, Chattanooga State Technical Community College joined with the other Tennessee Board of Regents institutions in offering the *Regents Online Degree Programs (RODP)*. Many courses required in these programs can be completed entirely online and will be transferable among all the participating institutions.

*The Regents Online Degree Programs* bring college to students—at home, the library, the office or on the road ... anytime of the day or night. No long waiting lines or hours away from job and family. No commuting. Simply click into class and start learning. The student can pick up a few courses or go for an associate's or bachelor's degree on his/ her own schedule.

Degrees are granted by any Tennessee Board of Regents university or community college of the student's choice and are the same as those earned by any other graduates of a Board of Regents school—and just as valuable in getting the career the student seeks.

College goes to the student, with Tennessee's *Regents Online Degree Programs*. So no matter where the student is, he/she can still invest in his/her future.

There is an extra charge per credit hour for these courses.

# **Additional Regents Degrees**

Degree: Major:	Bachelor of Professional Studies
Concentration:	InformationTechnology or Organizational Leadership
Degree: Major:	Bachelor of Interdisciplinary Studies
Concentration:	General Studies/Liberal Studies/ University Studies

# **Teacher Education Online**

Each of the six Tennessee Board of Regents universities will be addressing online programs for teacher education. Details at website.

# Information about these programs can be found at:

www.rodp.org

# Regents Online Degree Programs offered by Chattanooga State

Degree:	Associate of Applied Science
Major:	<b>Professional Studies</b>
Concentration:	Information Technology
Degree:	Associate of Arts
Major:	General Studies

Degree: Major: Associate of Science General Studies

# Information about these programs can be found at:

www.rodp.org/campus/cstcc



Students enjoy the beautiful campus between classes.

# General Education Requirements/Transfer

Information

# Chattanooga State Technical Community College

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Every year, hundreds of Chattanooga State students *save thousands of dollars* on the total cost of an undergraduate education by graduating first from Chattanooga State and then transferring to a four-year degree granting institution. Because Chattanooga State is accredited by the Southern Accreditation of Colleges and Schools, its graduates are accepted as juniors by institutions nationwide and they increase their chances to earn a degree. It's the *cost-effective* and *student-friendly* route to the university of your choice. Here are some examples of universities Chattanooga State graduates transfer to without loss of credit:

- Austin Peay State University
- Bryan College
- Covenant College
- East Tennessee State University
- Emory University
- Georgia Institute of Technology
- Georgia State University
- Lee University
- Mercer University

- Middle Tennessee State University
- Morehouse College
- Samford University (pharmacy)
- Southern Adventist University
- Tennessee Technological University
- University of Georgia (pharmacy)
- University of Memphis
- University of Tennessee at Chattanooga
- University of Tennessee at Knoxville



Chattanooga State Outdoor Museum of Art

http://www.chattanooaastate.edu

E-mail: AskCSTCC@chattanoogastate.edu

Chattanooga State Technical Community College Official Bulletin, Volume XXXII, Addendum/November 2006

It is a Class A misdemeanor to misrepresent academic credentials. A person commits the offense of misrepresentation of academic credentials who, knowing that the statement is false and with the intent to secure employment at or admission to an institution of higher education in Tennessee, represents, orally or in writing that such person:

- 1. Has successfully completed the required course work for and has been awarded one (1) or more degrees or diplomas from an accredited institution of higher education;
- 2. Has successfully completed the required course work for and has been awarded one (1) or more degrees for diplomas from a particular institution of higher education; or
- 3. Has successfully completed the required course work for and has been awarded one (1) or more degrees or diplomas in a particular field or specialty from an accredited institution of higher education.

Chattanooga State Technical Community College does not discriminate on the basis of race, sex, color, religion, national origin, age, disability or veteran status in provision of educational programs and services of employment opportunities and benefits. This policy extends to both employment by and admission to Chattanooga State Technical Community College.

Chattanooga State Technical Community College does not discriminate on the basis of race, sex, or disability in its education programs and activities pursuant to the requirements of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) of 1990.

Inquiries and charges of violation concerning Title VI, Title IX, Section 504, ADA or the Age Discrimination in Employment Act (ADEA) or any of the other above referenced policies should be directed to the College's Affirmative Action Officer. Requests for accommodation of a disability should be directed to the ADA Coordinator at Chattanooga State Technical Community College.

Chattanooga State Technical Community College is one of 45 institutions in the Tennessee Board of Regents system, the sixth largest system of higher education in the nation. The Tennessee Board of Regents is the governing board for this system which is comprised of six universities, thirteen community colleges, and twenty-six area technology centers. The TBR system enrolls more than 80 percent of all Tennessee students attending public institutions of higher education. Crime statistics, rate, and institutional security policies and procedures are available upon request.

The Title IX Coordinator for your campus is: Jerome Gober

Room 232D, CBIH Building, 697-4457

This catalog is intended for information purposes only. Requirements, rules, procedures, courses and informational statements set forth herein are subject to change. Notice of changes will be conveyed to duly enrolled students and other appropriate persons at the time such changes are effected. The period during which the degree requirements set forth in this catalog shall remain in effect, subject to changes provided herein, shall not exceed five (5) years from the beginning of the Fall 2006 academic term, two (2) years for technical certificates.



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http://www.chattanoogastate.edu or call toll free 1-866-547-3733 E-mail: AskCSTCC@chattanoogastate.edu

# **Collision Repair**

#### **Technical Diploma**

This course prepares students to work in automotive body repair and refinishing. The program focuses on automobile construction and repair and emphasizes hands-on activities. The course provides instruction on diagnosing damages and estimating repair costs, while covering the subjects included in the National Institute for Automotive Service Excellence (NIASE) certification tests "Body Repair" and "Painting and Refinishing."

## **Career Opportunities**

Auto body metal straightener, insurance adjuster, painter, repair

## cost estimator

# (423) 697-4780

SUMMARY OF REQUIRED HOURS			Semester Clock Hours		
Course No.	Course Title	FALL	SPR	SUM	
AB 000	Collision Repair Technology	450	450	390	
	Total Clock Hours: 1290				

Note: Students register for AB 000 each term until all competencies are mastered.

# **Commercial Truck Driving**

## **Technical Certificate of Proficiency**

This 7 1/2 week program trains students to drive commercial trucks, focusing on driving skills, safe operating practices, and proper record keeping.

#### **Additional Admission Requirements**

Applicants must be at least 21 years of age.

#### **Career Opportunities**

Truck driver, dispatcher, operations manager, safety supervisor, terminal (423) 875-8448

Course No.	Course Title SUMMARY OF REQUIRED HOURS	Total Clock Hours
CD 000	Commercial Truck Driving	216

# **Computer Operations Technology**

## **Technical Diploma**

This program is designed to provide students with first hand knowledge of the software, hardware, and operations of personal computers used in business and industry today; students will explore how the personal computer works, how data is processed, and how to apply the functions to solutions on the job. The program consists of studies in the major operating systems, diagnostics, and configuration of computers and their related peripheral devices.

## **Career Opportunities**

Information processing technician, personal computer hardware technician, microcomputer specialist, networking specialist

## (423) 697-4729

mester Clock Hours

		OCITIC		1 IOUIS
Course No.	Course Title	FALL	SPR	SUM
COT 000	Computer Operations Technology	450	450	390
	Total Clock Hours: 1290			

Note: Students register for COT 000 each term until all competencies are mastered.

# **Computer Repair**

See "Computer Operations Technology"

# Cosmetoloav

**Technical Diploma** 

This four-semester program prepares students to take the State Board of Cosmetology's practical and written examinations.

#### **Additional Admission Requirements**

Applicants must have completed at least two years of high school (8 credits) or score 38 or higher on the GED.

#### **Career Opportunities**

Color technician, esthetician, hair stylist, manicurist, make-up artist, shop manager

# (423) 697-4477 or Kimball (423) 837-9105

#### Grundy County High School (931) 692-5400

		SUMMARY OF REQUIRED HU	UR5	Semester	Clock Hou	rs
Course No.	Course Title		FALL	SPR	SUM	FALL
CY 000	Cosmetology		450	450	390	*
	0,	Total Clock Hours: 1500*				

\*1500 clock hours required for State Board licensure

# **Cosmetology Instructor Training**

## **Technical Certificate of Proficiency**

This 300 hour course is a presentation of concepts of instruction in cosmetology. Topics include history of teaching, educator characteristics, curriculum development-evaluation, and teaching assessment in techniques.

#### **Additional Admission Requirements**

Applicants must have completed 1500 hours in the course of cosmetology and have a valid cosmetologist license.

# (423) 697-4477 or Kimball (423) 837-9105

		SUMMARY OF REQUIRED HOURS	Semester Clock Hours
Course No.	Course Title		Total Clock Hours
CYT 000	Cosmetology		300

# **Diesel Equipment Mechanics**

#### **Technical Diploma**

This program trains students in diesel engine mechanics. **Career Opportunities** 

Diesel mechanic, heavy diesel equipment repair, mechanic helper, truck mechanic

# (423) 697-4778

	SUMMARY OF REQUIRED HOURS	Seme	ester Cloc	k Hours
Course No.	Course Title	FALL	SPR	SUM
DM 000	Diesel Mechanics Total Clock Hours: 1290	450	450	390

Note: Students register for DM 000 each term until all competencies are mastered.

# Electrician

See "Industrial Electricity"

## Greenhouse

See "Landscaping and Turf Management"

# Horticulture

See "Landscaping and Turf Management"

## HVAC

See "Air Conditioning and Refrigeration"

# Industrial Electricity

**Technical Diploma** 

This program prepares students to install, maintain, and repair electrical systems and equipment.

**Tennessee Technology Center** 

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	Child Development Center		

# **Notice To Students**

The College's course offerings and requirements are regularly scrutinized and revised. This catalog shows the offerings and requirements in effect at the time of publication. They may be changed or revoked. Adequate and reasonable notice will be given to students affected by any substantive changes.

This catalog is not intended to state contractual terms and does not constitute a contract between the student and the institution.

The institution reserves the right to make changes as required in course offerings, curricula, academic policies and other rules and regulations affecting students to be effective whenever determined by the institution. These changes will govern current and formerly enrolled students. Enrollment of all students is subject to these conditions.

Current information may be obtained from the following sources:

Admission Requirements Course Offerings Degree Requirements Fees and Tuition

- Admissions Office
- Department or Division Offering Course
- Academic Affairs
- Bursar's Office

# http://www.chattanoogastate.edu or call toll free 1-866-547-3733 E-mail: AskCSTCC@chattanoogastate.edu

# Academic Programs continued

Certificate Programs	
Technical Certificate of Credit	CAD Technology Chemical Process Operations Diagnostic Medical Sonography E-Commerce Information Systems Technology Nuclear Medicine Technology Office Systems Specialist Pharmacy Technician Radiation Therapy Technology
Technical Diploma (clock hour)	Air Conditioning and Refrigeration Automotive Technology Building Construction Technology Business Systems Technology Collision Repair-(Auto Body Repair) Computer Operations Technology Cosmetology Diesel Equipment Mechanics Industrial Electricity Industrial Electronics Industrial Electronics Industrial Maintenance Mechanics Landscaping and Turf Management Machine Tool Technology Medical Assistant Motorcycle & Marine Service Technology Practical Nursing Realtime Reporting: Scopist Surgical Technology Welding
Technical Certificate of Proficiency (clock hour)	Commercial Truck Driving Cosmetology Instructor Motor Sports Vehicle Technology

# Regents Online Degree Programs

DEGREE	MAJOR (within degree)	CONCENTRATION (within major)
Associate of Arts	_ General Studies	
Associate of Science	_ General Studies	
Associate of Applied Science	Professional Studies	_ Information Technology

# Admissions

# **General Admissions Requirements**

Chattanooga State has an open door admission policy. The College is open to all persons, regardless of race, color, religion, sex, age, national origin, veteran status, or physical, mental or educational disability.

Admissions requirements and procedures vary, depending on the student's goals and classification. Each category has its own requirements and procedures. However, the following apply to all applicants:

- Applicants should meet physical standards appropriate to their occupational choices.
- An admission application is not complete until the Admissions Office has received all required documents. An applicant may be denied admission until all are received.
- Males between 18 and 26 must certify registration with Selective Service before they can register for classes.
- The State of Tennessee requires all students who plan to enroll full-time to provide proof of two immunizations with the measles, mumps and rubella (MMR) vaccines. Contact Admissions for detailed information. (Exempt if born before 1957.)
- All first-time students must submit a completed Hepatitis B Health History Form prior to enrollment.

In addition to the admission requirements/procedures listed below, some programs have extra requirements, procedures, and deadlines. See the specific program in the "Career Programs" section of this catalog for more information.

# Admissions Procedures - How To Apply Regular Admission

A regularly admitted student is one who is pursuing an associate degree or Tennessee Technology Center program from Chattanooga State.

## **Associate Degree Programs**

#### **First Time Freshmen**

- Submit an application to the Admissions Office and pay the non-refundable application fee.
- Submit an official high school transcript or General Education Development (GED) transcript.

An official transcript has the granting institution's seal and is either mailed directly to the Admissions Office or hand delivered in a sealed school envelope.

- High School graduates must hold a regular high school diploma. The high school transcript must show the student's graduation date and, for Tennessee high school graduates, must include a transcript entry that indicates the student passed the required proficiency test battery. Note: Certificate of attendance or Special Education diplomas are not equivalent to a regular high school diploma.
- Minimum scores for GED Certificate holders are based upon when the GED test was taken and are as follows:

JANUARY 1, 2002 OR LATER

- Minimum score: 2,250
- Minimum sub-score: 410
- Minimum sub-score average: 450 JANUARY 1, 1997 THROUGH DECEMBER 31, 2001
  - Minimum score: 45
  - Minimum subscore: 40
- PRIOR TO 1997
  - Minimum score: 45
  - Minimum subscore: 35
- Graduates of a non-regionally accredited or non-state approved high school will be required to take the test.

Test Requirements

For applicants under 21: Submit ACT (American College Testing Program) or SAT (Scholastic Aptitude Test) scores. Scores are valid if taken within three years of the first semester of attendance and are used for advising and placement purposes. Additional assessment may be required.

Note: Students without the ACT (or SAT) may take the ACT residual test available in the Testing Center (valid for admission only at Chattanooga State); fee required. Residual test scores cannot be used for Tennessee Lottery eligibility.

For applicants 21 or older: Submit valid ACT or SAT scores or take assessment tests in reading, writing, and-math.

#### **Transfer Students**

- Submit an application to the Admissions Office and pay the non-refundable application fee.
- Submit official transcript(s) from all colleges previously attended. An official transcript has the granting institution's seal and is either mailed directly to the Admissions Office or is hand delivered in a sealed school envelope.

Transcripts are evaluated and credit may be given for equivalent courses completed at regionally accredited institutions. Transfer credits will not be used in computing the student's GPA at Chattanooga State.

Students transferring from non–regionally accredited institutions follow the same procedures as first time freshmen. Credits from non–regionally accredited institutions may be evaluated on an individual basis or may be validated by examination. See "Alternative Sources of Credit" for information on procedures and-fees.

· Testing and Placement

Transfer students who have not earned credits in college-level English composition or college-level, algebra-based math will be assessed in writing and math based on a valid ACT score or other appropriate assessment test. Chattanooga State accepts assessment and placement, as well as equivalent Transitional Studies courses, from all TBR schools. Assessment and placement from other non–TBR institutions, as well as Transitional Studies course credits, may be approved by Chattanooga State's Transitional Studies director.

Testing is not required for students who have any of the following from a regionally accredited college:

- successful completion of 60 hours of college level courses
- associate degree
- baccalaureate degree

Transfer students are held to the same standards as other Chattanooga State students. Transfer students deficient in a Basic Academic Competency cannot continue in a related college-level course until they have satisfactorily met the exit criteria of the appropriate Transitional Studies course(s).

- Transfer students pursuing an AA or AS must also submit official high school transcripts or GED scores. This is waived for students who:
- graduated from high school (or GED) before 1989, or
- transferred 60+ hours of college level work, or
- have a baccalaureate or associate degree
- Grade Point Average

Transfer students must be eligible to return to the institution they transferred from and meet the academic retention standards of Chattanooga State. Students not meeting these criteria may be admitted to Chattanooga State after not attending any college for at least one term (not including summer). Such students are admitted on probation their first term and can be suspended at the end of the term if they do not meet Chattanooga State's academic retention standards. (See "Academic Retention Standards" in the "Academic Regulations" section.)

# **Technical Certificate of Credit Programs**

- Submit an application to the Admissions Office (with non-refundable fee).
- Be admitted as a Special Student (see below).
- Testing requirements, if any, are determined by the program's content.

If a student enrolled in a Technical Certificate of Credit program later changes to degree-seeking status, all regular admission requirements, including assessment, must be met. Likewise, a regularly admitted student pursuing an associate degree may concurrently pursue a Technical Certificate of Credit, but this provision does not alter any requirements for regular admission.

Additional Admission Requirements

Some Technical Certificate of Credit programs have additional requirements, procedures, and deadlines which must be met. See the specific program in the "Career Programs" section of this catalog for information.

# **Special Students**

A Special Student is one who takes credit courses without working toward a degree. Special Students must:

- Submit an application to the Admissions Office (with non-refundable fee).
- Be 21, or (if under 21) have a regular high school diploma or GED.
- Testing
- Meet course prerequisites. Transcripts may be required by advisement.

Some Technical Certificate of Credit programs require testing before admission. Testing may also be required in order to take certain courses (see below). Though Special Students are not required to complete normal assessment procedures, they are responsible for having the requisite knowledge and skills to succeed in their course(s).

# Limitations:

- Special Students cannot enroll in a college level English or math course or in a course with an English or math prerequisite until they (1) satisfy the course's Mandatory Assessment Requirements, or (2) show successful completion of an appropriate college level English and/or algebra-based math course.
- Special Students are not eligible for financial aid unless enrolled in an approved Technical Certificate of Credit program.
- There is no limit on the number of credits Special Students may carry per term other than those stated in the Academic Load policy.
- Special Students are not restricted in how many credits they can earn. But, if the student changes to degree-seeking status, credit hours accumulated as a Special Student do not apply to the final twenty-four (24) semester hours required for the associate degree (exclusive of R/D requirements).

When special students change to degree seeking status, ALL regular admissions requirements must be met prior to registration regardless of the number of credit hours earned as a Special Student.

# **Transient Students**

Students who are regularly enrolled in another college may attend Chattanooga State as transient students. Transient students-must:

- Submit an application to the Admissions Office (non-refundable fee).
- For each semester attending, submit a letter of good standing from their regular college, dated after the end of the last term attended.

- Meet course prerequisites. (Transcript may be required for advisement.)
- If taking English or math, show successful completion of appropriate college level English and/or algebra-based math course(s), or satisfy the course's Mandatory Assessment Requirements.

Note: Transient students cannot enroll until the first day of regular registration for a semester, nor are they eligible to receive financial aid through Chattanooga State. If a transient student changes to Chattanooga State degree seeking status, ALL admissions requirements must be met prior to registration.

**Early Admission**—Submit an application to the Admissions Office with nonrefundable application fee.

- **1. Early admission** is available to high school students who-have:
  - completed the 9th, 10th, and 11th grades with a 3.2+ GPA on a 4.0 scale or the equivalent.
  - ACT composite score of at least 22.
  - written statement from their high school principal or counselor specifying the college courses that will be substituted for the remaining high school courses needed for high school graduation.
  - written endorsements from their high school counselors and from their parents or guardians.

The student will leave the high school at the end of the junior year and matriculate into Chattanooga State. The Chattanooga State courses will substitute for courses needed for graduation from high school. The high school principal or counselor, or designee, will determine appropriateness of the courses before the student's matriculation.

The student is awarded senior credit after successfully completing the college freshman year. Since 4 units of English is required for high school graduation, each student will enroll in freshman English, plus American History and Economics if not already completed in high-school.

2. **Dual Enrollment**—The Dual Enrollment Program provides college courses for qualified high school honor students. Students receive college and high school credit simultaneously. These courses are offered during the school day on the high school campus, or students may attend one of Chattanooga State's sites with the parent's and principal's or counselor's permission. All courses are taught by properly credentialed Chattanooga State instructors.

Prospective dual enrollment students: sophomore (by exception), junior, or senior high school students with a minimum of 3.0 GPA and an ACT composite score of 19 or above. Additionally:

- For English—ACT English score of 19 required; open to seniors only
- For Math—ACT math scores required: 21 for Pre-Calculus II (MATH 1720); 25 for Calculus (MATH 1910)
- 3. Middle College High School—Courses are offered during the day at the Chattanooga State main campus located on Amnicola Highway. Students will matriculate into Chattanooga State with parent and principal's or counselor's permission. SACS qualified instructors teach all courses. Since 4 units of English are required for high school graduation, each student will enroll in an English course developed and taught by a Hamilton County teacher, housed on the Chattanooga State campus for this purpose.

# **Course Descriptions**

Chattanooga State Technical Community College

Volume Number 32

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# **Course Listing By Subject Abbreviation**

The following is a list in alphabetical order of Chattanooga State courses by subject abbreviation code.

For example, ENGL=English, FI=Fire Science and WD=Welding.

Courses numbered 000 or 0000 are Tennessee Technology Center (vocational) courses and carry clock-hour credit.

Course numbers beginning with **0** (e.g. 0700) are *Transitional Studies* or other remedial-type courses.

Course numbers beginning with 1 (e.g. 101, 1010) are *freshman* level.

Course numbers beginning with 2 (e.g. 201, 2010) are *sophomore* level.

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CO	Mass Communications	81-82	ET EZ	Electrical/Electronic Engineering	00-92	MG	Management	96-97
COT	Computer Operations Technolog	gy 82	EZ	Technology (DuPont)	89	MN	Maintenance Technology	97
СР	Cooperative Education	82	FI	Fire Science	89-90	MO	Medical Assistant	97
CS	Information Systems	82-83	FM	Financial Management	90	MOTR	Motor Sports Technology	97
CT	Chemical Technology	83-84	FP	Financial Planning	90	MRI	Magnetic Resonance Imaging	97
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DM	Diesel Equipment Mechanics	85	HE	Health Information Management	91	ND	(DuPont)	98-99
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D01 WI	bee manemates	05	HMSC	Homeland Security	92	NM	Nuclear Medicine Technology	99-100

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production, direction, camera and audio operation, electronic graphics use, satellite news gathering and uplinking; class 2 hours, lab 2 hours. [F,S]

#### CO 232 Public Relations (3)

Introduces strategic issues and effective practices of communication between organizations and their constituencies. Includes the study of public opinion research, media relations, public communication campaigns, consumer identity, and representational ethics. Students gain practical experience in writing news releases, conducting surveys, and designing integrated campaigns. Prereq: ENGL 1010. [S]

#### **CO 240 News and Sports Broadcasting (3)**

Techniques and methods used by Radio-TV news and sports broadcasters; focus on reporting, writing, management of resources and on-camera presentation. Prereq: CO-202-or-204 or instructor's consent. [on demand]

#### CO 241 Non-linear Video Editing (3)

Master and employ advanced electronic video editing skills by completing various editing assignments utilizing a variety of linear and nonlinear editing technologies and techniques. Prereq: CO 110. [F]

#### CO 249 Special Topics in Mass Communications (3)

Specialized topics in the field of mass communications; repeatable for credit on different topics. Prereq: Instructor's consent. [on demand]

#### CO 281 Media Management (3)

This course deals with various media management functions, models, and operations. Topics will include advertising planning, media, strategy, creative execution, consumer behavior, campaign management, and the role of advertising agencies and governmental regulations. Prereq: CO 110, ENGL 1010. [S]

# Computer Programming, See "CS-Information Systems"

**Computer Repair, See "ER-Industrial Electronics"** 

**Computer Science, See "CS-Information Systems"** 

Construction, See "CI-Civil Engineering Technology"

# **COT - Computer Operations Technology**

#### **COT 000 Computer Operations Technology** Computer components and functions; data; software applications; hardware assembly and repair; system diagnostics; networking; programming; 30 clock hours/week. [E]

Court Reporting, See "REAL-Realtime Reporting"

#### **CP** - Cooperative Education

#### CP 101,102,103,104,105,106 Cooperative Education Work Experience I,II,III,IV,V,VI (1-3 each)

Combines off-campus work with on-campus study, allows students to gain marketable job skills and develop self-confidence and interpersonal skills; credit based on hours worked; approved for unrestricted elective credit in career programs (AAS).

#### Creative Writing, See "ENGL-English"

## **CS** - Information Systems

#### **CS 101 Computer Literacy (3)**

Information about the nature of a computer applied to the roles that computers play in society; intro to the use and operation of microcomputers and commercial applications software packages; basic components of a computer, computer applications, data processing careers, electronic spreadsheets, databases, intro to word processing, and issues in computing. [E]

#### CS 104 Fundamentals of Information Systems (3)

Overview of the information systems discipline; base number systems, computer, data, and file organization, career opportunities, and current technology concepts. [E]

# CS 108 Internet Applications for Educators (3)

History of the Internet and classroom application; focus on accessing Internet resources. [Su]

#### **CS 109 Maintaining Classroom Technology (3)** Covers basic skills needed to set up and maintain technology in the classroom. [Su]

#### **CS 114 Concepts of Programming (3)**

Basic concepts of traditional computer program design, design tools, and an intro to object technology. [E]

## CS 124,225 Visual BASIC I,II (3,3)

Intro to the concepts of computer program design through the Visual BASIC language. *124*–Use of controls, forms, code modules, functions and procedures to create Windows applications. *225*–Advanced features: file processing, data access, and communicating with other Windows applications, including object linking and embedding. Must be taken in sequence. Coreq for 124: CS-114. [124–F,S; 225–S]

#### CS 140 Introduction to Web Site Design Internet Foundations (3)

Fundamentals of Web Site Design - domains, Web hosting, evolution of browsers and HTML/ XHTML, current standards in Web design, basic techniques for creating and maintaining Web pages using software tools, basic understanding of issues related to use of scripting, Web page interactivity, accessibility and multimedia. Prereq: CS 101. [F,S]

#### CS 150 Principles of Web Site Design (3)

Concepts and principles for designing Web sites; basics of creating Web pages using XHTML and Cascading Style Sheets; enhancing a Web site with color, images, tables and other page elements; and publishing a Web site to a Web server. [on demand]

#### CS 151 Building Web Sites (3)

Use of current web authoring tools to create web sites; focus on web page construction and use of themes, templates, and forms. Prereq: CS-150 or instructor's consent. [on demand]

#### CS 152 Multimedia Projects (3)

Use of latest web design tools for web publishing. Prereq: CS-150 or instructor's consent. [on demand]

#### CS 160,161 Java Programming I,II (3,3)

*160*–Intro to the Java programming language; includes object-oriented techniques and development of simple application and applets. *161*–Covers advanced features. Must be taken in sequence or have instructor's consent. Prereq for 160: CS-124 or instructor's consent. [on demand]

#### CS 176 Microcomputer Operating Systems (3)

Microcomputers, operating systems, system commands, and machine codes; data representation and elementary machine instructions studied in detail; survey of communication codes and terminology. Prereq: CS-104 or instructor's consent. [S]

#### CS 178 Fundamentals of Unix (3)

Overview UNIX system administration; booting and shutting down, root account, controlling processes, file system organization, drivers and the kernel, networking, security, daemons, and other UNIX concepts. Prereq: CS-176 or instructor's consent. [on demand]

#### CS 185, 285 C++ Programming Language I, II (3,3)

185-Intro to computer program design concepts and development using the C++ programming language; orientation towards syntax, usage, modularity of program design, and development of program libraries; credit not allowed for both CS-185 and EG-124. 285-Covers object-oriented design, design and implementation of C++ classes, inheritance, C++ pointers and dynamic memory, recursion, linked lists, and data structures - stacks and queues. Prereq for 185: CS-114; or experience with a block structure language or instructor's consent. Prereq for 285: CS 185; or instructor's consent. [185-S,285-F]

## CS 190 Introduction to Macintosh (3)

Intro to Macintosh computers, system maintenance, software installation, use of peripherals, efficiency enhancement; survey of mainstream advertising and graphic arts software. [F]

#### CS 197 Spreadsheet Software Applications (3)

Designed for students who have been introduced to microcomputer use and operation, have basic knowledge of Windows environment, and wish to learn to use electronic spreadsheet software package. [F,S]

#### CS 198 Database Software Applications (3)

Designed for students who have been introduced to microcomputer use and operation, have basic knowledge of Windows environment, and wish to learn to use commercial database software package. [F,S]

## **CS 204 Microcomputer Architecture (3)**

Provides background for using the microcomputer as a business tool; microcomputer basics with focus on hardware components and configurations, security, and networking. Prereq: CS-104 or instructor's consent. (Same as NW-204; credit not allowed for both courses.) [F]

#### CS 205 Computer Networks (3)

Basic data communications and networks; data communication concepts, standards, local area networks OSI model, and network hardware and software. Prereq: CS-176 with a "C" or better or instructor's consent. Coreq: CS-204. [F]

## CS 215 Local Area Network Management (3)

Management of computer local area networks; server and workstation installation, network performance management, managing client services, print services, and security. Prereq: CS-205 and experience with microcomputers or instructor's consent. [S]

#### CS 231 Numerical Methods (3)

Foundation for basic numerical methods; higher order equations, systems of equations, interpolation and curve fitting, numerical integration, and differential equations; problem solution using the computer and elementary discussion of error control. Prereq: CS-185. Coreq: MATH-1920. [on demand]

## CS 240 Computer User Support (3)

Overview of computer user support; includes troubleshooting, problem-solving, personal communications, needs assessment, product documentation, user training, and help-desk operation. Coreq: CS-244 or instructor's consent. [on demand]

#### CS 241 Intermediate Web Site Design (3)

Advanced concepts in Web site design using XHTML and Cascading Style Sheets to create forms and advanced page layouts. Provides an introduction to shopping carts and other advanced page features. Prereq: CS 150. [S]

# CS 242 Introduction to Scripting Languages (3)

Introduction to Javascript for non-programming majors. Students use Javascript to incorporate Dynamic HTML (DHTML) into pages with Cascading Style Sheets. Prereq: CS 241 or instructor's consent. [S]

## CS 244 Systems Analysis and Design (3)

Integration of manual and data processing techniques applied to business and science; complex application areas studied with view toward development and analysis of systems and procedural improvements; focus on case study approach. Prereq: Advanced standing or instructor's consent. [S]

#### CS 248 Survey of Computer Topics (1-4)

Specialized topics and/or problems in information data processing studied at an introductory level; repeatable for credit on different topics. Prereq: Instructor's consent. [on demand]

# CS 249 Topics in Computer Applications (3)

Specialized topics and/or problems in computer data processing studied in detail; repeatable for credit on different topics. Prereq: Instructor's consent. [on demand]

#### CS 250 Advanced Web Page and Site Design (3)

Development of web sites driven by underlying databases; Active Server Page (ASP) technology; client-side and server-side scripting. Prereq: CS-124, 151, 296; or instructor's consent. [S]

#### CS 251 Scripting Languages (3)

Intro to JavaScript and VBScript programming languages; covers both client-side and server-side programming. Prereq: CS-250 or instructor's consent. [on demand]

#### CS 293 Computer Applications in Management (3)

Designed for those who will use a suite of commercial software applications in the office setting; must have working knowledge of word processing software applications and excellent keyboarding/document formatting skills. Prereq: CS 101 or equivalent, proof of computer competence, or instructor's consent. [F,S]

#### CS 296 Principles of Database Management Systems (3)

Basic concepts of database management systems (DBMS); terminology, types of systems, large and small system implementation, report generators, and user interface. Prereq: At least 1 programming language course. [F]

## CS 299 Special Projects (3)

Integrates concepts and skills learned in previous programming courses; focus on solutions to typical problems encountered in business; case studies in systems and programming; repeatable for credit with different programming languages. Prereq: instructor's consent. [S]

# **CT - Chemical Technology**

#### CT 101 Foundational Studies for Chemical Process Operator (4)

Intro to terms and basic concepts used in food and chemical process industries; helpful to prospective and existing employees in the industry and provides base for follow-up studies in chemical and food processing; class 3 hours, lab 3.5 hours. [on demand]

# CT 102 Fundamentals of Process Operations (4)

Intro to chemical process operation basics; overview of basic process equipment characteristics involved in chemical manufacturing—heat exchangers, steam traps, pumps, valves, piping, and sensors; class 3 hours, lab 3.5 hours. [on demand]

#### CT 107 Plant Statistics (1)

Intro to statistical thinking and its industrial applications; includes statistical process control, Excel use, and plant-specific control charts and graphs. Prereq: CT-112. [on demand]

#### CT 111 Introduction to Process Technology (3)

Overview of process technology ranging from safety to process utilities; includes a plant visit. Prereq: DSPM-0800, DSPR-0800, DSPW-0800. [F]

#### CT 112 Industrial Mathematics (3)

Basic mathematical operations, systems of measure, problem solving, geometry, right angle trigonometry, and their industrial applications. Prereq: DSPM 0800, DSPR-0800, DSPW-0800. [F]

#### CT 113 Industrial Chemistry (4)

Intro of inorganic and organic chemical theories and their industrial applications; includes case studies, safety, and communication skills; class 3 hours, lab 2 hours. Prereq: DSPM-0800, DSPR-0800, DSPW-0800. [F]

#### CT 115 Process Chemistry (3)

Intro to organic chemistry and industrial applications of organic and inorganic theories; focus on plant-specific process chemistry; includes case studies, safety, and communication skills. Prereq: CT 111, 113. [on demand]

## **CT 121 Industrial Process Equipment (4)**

Intro to operation and utilization of industrial process equipment; includes preventative maintenance, safety, troubleshooting; and communication skills; class 3 hours, lab 3 hours. Prereq: CT-111. [S]

#### CT 122 Introduction to Quality Control (3)

Intro to quality concepts and applications used in process industries; includes a study of the statistical methods of quality control, quality tools, control charts, team skills and communication skills. Prereq: CT-111, 112. [S]

#### CT 123 Introduction to Process Operations-(4)

Intro to theory, equipment, and application of common industrial processes such as distillation and evaporation; includes case studies, safety, troubleshooting, and communication skills; class 3 hours, lab 3 hours. Prereq: CT-111, 113. [S]

#### CT 124 Introduction to Process Control and Instrumentation (3)

Intro to the principles of process control and the functions of instruments used to monitor and control chemical processes; includes the use of process control diagrams, case studies, troubleshooting and communication skills. Prereq: CT-111. [S]

#### CT 150,220 Unit Operations I,II (4,4)

Processes and equipment used to convert raw materials into chemical products; class 3 hours, lab 3 hours. *150*–Characteristics and operations of materials handling and storage systems; checks and maintenance requirements; mixing operations, tanks, pumps, conveyors, and piping. *220*–Focus on types of reactors, energy input/output, and reactor control methods. Must be taken in sequence. [on demand]

#### **CT 210 Basic Laboratory Techniques (4)**

Intro to basic laboratory techniques; filtration and extraction; use of laboratory equipment and glassware; focus on industrial applications, safety, and plant-specific techniques; class 3 hours, lab 2 hours. Prereq: CT 115. [on demand]

#### FI 148, 230 Firefighter I, II (3,3)

*148*–Credit for course given for state or national certification to NFPA-1001 Firefighter-I. *230*–Credit given for completion of standards set for state or national advanced Certified Fire Fighter-II. [F,S]

#### FI 215 Fire Behavior and Combustion (3)

Theories and fundamentals of how and why fires start, spread, and how they are controlled. [F]

#### FI 217 Fire Hydraulics (3)

Basic math and hydraulic formulas for fluid flow, friction loss and forces; internal and external fire protection water distribution and supply; fluid flow in hoses; nozzle discharge and fire streams; and application of principles to fire department operations. [S]

#### FI 221,222 Fire Administration I,II (3,3)

Organization and management of fire department. 221–Focus on fire service leadership from perspective of the company officer; relationship with government agencies. 222–Budget administration, organization of divisions; relationship with outside agencies. Prereq for 222: FI 221 or 251. [F,S]

#### FI 235 Fundamentals of Emergency Service Safety (3)

Application of safety during emergency and nonemergency operations; basic understanding of causes of injuries and death and how to apply that understanding to emergency and non-emergency operations; emergency operations, emergency medical, equipment and vehicle, facility, hazardous materials, wildland, and general safety, protective clothing and safety equipment. [F]

#### FI 240 Emergency Service Instructor (3)

Credit given for national or state certification to NFPA-1041 Instructor Level-I. [F,S]

#### FI 251 Fire Officer I (3)

Credit given for national or state certification to NFPA-1021 Fire Officer Professional Qualifications. May be substituted for FI 221. Prereq: FI 230 or instructor's consent. [F,S]

#### FI 260 Fire Prevention and Inspection (3)

Provides fundamental information regarding the history and philosophy of fire prevention; organization, and operation of a fire prevention bureau; use of fire codes; identification and correction of fire hazards, and the relationship of fire prevention with built-in fire protection systems, fire investigation, and fire and life safety education. [S]

#### FI 262 Fire Causes and Investigation (3)

Analysis of fire causes; relationship of fire characteristics and causes; recognition of equipment failure responsible for fires, incendiary fires; collection, preservation, and documentation of evidence substantiating fire causes. [S]

#### FI 270 Emergency Service Strategic Planning & Innovation (3)

Basic concepts strategic planning and innovation for emergency services; community emergency service planning issues, budget/cost containment, and evaluation review; alternative delivery systems, innovation management and emergency service future. Prereq: Instructor's consent. [S]

#### FI 275 Emergency Response to Hazardous Materials (4)

Basic principles and techniques regarding emergency response to hazardous materials incidents; recognition information, analysis and mitigation of hazardous materials incidents by emergency response personnel; regulatory considerations, detection and personal protective equipment, decontamination, and facility and transportation containers; class 3 hours, lab 3 hours. [on demand]

#### FI 280 Emergency Services Practicum (3)

Research paper on contemporary issues or problems within emergency services field; written report required; findings may be applied in work environment. Prereq: instructor's consent. [F,S]

#### FI 299 Special Topics in Emergency Services (1-3)

Topics of traditional and current interest in emergency service field; repeatable for credit on different topics. Prereq: Instructor's consent. [on demand]

#### **FM - Financial Management**

#### FM 201 Financial Management (3)

Designed to improve decision skills related to financial resources of the firm; financial analysis techniques, time value of money, valuation, and risk; nature and scope of financial markets and investment opportunities. Prereq: BU 115, BU 250 or MG 103. and MG 103 with a "C" or better. [F,S]

#### Foreign Language, see "FREN-French," "GERM-German," "SPAN-Spanish"

#### **FP** - Financial Planning

# FP 101 Fundamentals of Financial Planning (3)

Intro to financial planning principles; focus on communication with the client; basic areas of financial planning surveyed, i.e., tax planning, risk and insurance, investments, retirement benefit, and estate planning. [F]

#### FP 219 Computerized Financial Planning (3)

Applications course teaching simple household budgeting and money management software and more extensive programs which track investments; students use spreadsheet software to develop their own applications; experience with computer applications required. Prereq: BU-185. [on demand]

#### **FREN** - French

#### FREN 1010,1020 Elementary French I,II (4,4)

Elementary grammar, vocabulary, reading, idiomatic conversation, and French culture. Must be taken in sequence. [1010–F, 1020–S]

# FREN 2010,2020 Intermediate French I,II (3,3)

Intermediate French conversation and reading. Must be taken in sequence. Prereq: FREN-1020 or 2 years of high school French. [on demand]

#### SPECIAL INTEREST COURSES

The following courses are offered as a community service and are not intended to be used to satisfy the foreign language requirement or remove high school deficiencies for any degree program at Chattanooga State or any other college or university.

#### FREN 1000 Conversational French (2)

Contemporary French language and culture; focus on spoken language, basic vocabulary and idiomatic expressions needed in real-life situations. [on demand]

#### FREN 1990 French Field Work (3)

Basics of teaching French; includes observation/ participation; class 2 hours, lab 2 hours. Prereq: FREN-1010. [on demand]

#### FREN 2990 Special Topics in French (1-3)

Specific topics in French language and culture; repeatable for credit on different topics. Prereq: FREN-1010 and instructor's consent. [on demand]

#### **GEOG** - Geography

#### **GEOG 1010 Physical Geography (3)**

The Earth's physical environment; processes that determine Earth's climate, water, soil, landforms, vegetation, and distribution patterns of each. [S]

#### **GEOG 1025\* World Geography (3)**

Study of selected world regions; focus on each region's characteristics, problems and global interrelationships. [E]

#### **GEOL** - Geology

#### **GEOL 1040\* Physical Geology (4)**

Intro to geology; Earth's age and origin; Earth materials, processes, and resultant structures; class 3 hours, lab 3 hours. [F]

#### **GEOL 1050\* Historical Geology (4)**

Earth's origin and geologic history; concept of geologic time and the fossil record; class 3 hours, lab 3 hours. [S]

#### DELETION: PE 202 Group Fitness Instructor Internship (3)

#### PE 209 Individual and Team Sports (3)

Teaching techniques of individual and team sports. [F]

#### PE 210 Introduction to Physical Education (3)

Role of physical activity in American education; historical, political, economic, and social forces affecting physical education and society. [S]

#### PE 211 Personal and Community Health (3)

Significant information useful in making intelligent decisions about personal health; focus on personal, family, social living, and community health. [F]

#### PE 220 Care and Prevention of Athletic Injuries (3)

Prevention, analysis, prompt diagnosis, treatment and rehabilitation of common athletic injuries; focus on practical aspects of athletic training within a theoretical framework; lab experiences significant part of course. [F]

#### PE 230\* The Science of Fitness and Wellness (3)

Developing personal responsibility for optimal well being; encompassing health concerns and risk factors, lifestyle behaviors and preventive health measures. This course may <u>not</u> be substituted for a physical education activitiy class. [F,S].

#### PE 235 Special Topics in Wellness and Health Promotion (1-3)

Specific topics of interest in wellness and health promotion fields; repeatable for credit on different topics.

#### **PHED - Physical Education - Activity** Courses

Physical Education Activity courses meet 2 hours per week for each semester hour of credit. *To encourage students to develop and maintain an active, healthy lifestyle, designated Physical Education Activity Courses are repeatable for credit, but no more than 6 hours (in any combination) may be applied toward a degree. Each course has a maximum limit as well (see course description).* 

#### **Adaptive Physical Education**

Students with Adaptive Physical Education needs may enroll in any of a number of regular Physical Education activity classes. These classes routinely begin with evaluation of each student's physical profile and establish a personalized training or conditioning program based on the individual's needs. A wide range of adaptations may be implemented, limited by considerations of the student's personal safety and abilities and reasonable and appropriate use of the College's equipment and facilities.

#### PHED 1010 Aerobics (1)

Repeatable; maximum of 4 hours applicable toward a degree. [E]

#### PHED 1020 Step Aerobics (2)

Repeatable; maximum of 4 hours applicable toward a degree. [F,S]

# PHED 1030 Aerobic Kickboxing (1)

Repeatable; maximum of 2 hours applicable toward a degree. [F,S]

#### PHED 1040 Indoor Cycling (1)

Basic instruction and practice of indoor cycling on a stationary bike; repeatable, maximum of 2 hours applicable toward a degree. [F,S]

#### PHED 1080 Introduction to Pilates (1)

A class emphasizing mat exercise that increases muscular strength, tone and flexibility. Repeatable; maximum of 2 hours applicable toward a degree. [F,S]

#### PHED 1090 Introduction to Yoga (1)

Repeatable; maximum of 2 hours applicable toward a degree. [F,S]

## PHED 1095 Power Yoga (1)

Practice in an intense form of yoga; repeatable; maximum of 2 hours applicable toward a degree. [F,S]

#### **PHED 1100 Weight Loss Management (1)**

Class will cover the major components of weight loss management through nutrition and physical well being. Repeatable; maximum of 4 hours applicable toward a degree. [F,S]

#### PHED 1110 Concepts of Wellness (1)

Concepts, understandings, and values of activity as applied to optimal living through wellness; lab in motor activity. [E]

#### **PHED 1120 Strength and Conditioning (1)**

Intro to weight training and conditioning; repeatable; maximum of 4 hours applicable toward a degree. [E]

#### PHED 1130 Fitness for Living (2)

EncompassesStrength training, body contouring and toning, aerobic conditioning, and flexability. Each student's current status will be assessed and progress monitored. Repeatable; maximum of 4 hours applicable toward a degree. [F,S]

# PHED 1140 Walking for Fitness (2)

Repeatable; maximum of 4 hours applicable toward a degree. [E]

#### PHED 1150 Body Sculpting (1)

Basic instruction and practice in the fundamentals of weight training using light hand weights; repeatable; maximum of 2 hours applicable toward a degree. [F,S]

PHED 1450 Beginning Self-Defense (1) [F,S]

#### PHED 1460 Self-Defense for Women (1) [F,S]

#### PHED 1470 Advanced Self-Defense for Women (1)

Prereq: PHED-1460 or instructor's consent. [S]

#### PHED 1560 Skin and Scuba Diving (1)

Scuba equipment rental not included in course cost; swimming proficiency needed; repeatable; maximum of 2 hours applicable toward a degree. [F,S]

#### PHED 1570 Backpacking and Hiking (1)

Repeatable; maximum of 2 hours applicable toward a degree; equipment, campsite rental fees, food, and transportation not included in course cost. [F,S]

**PHED 1750 Elementary Ballet Technique (1)** Repeatable; maximum of 2 hours applicable toward a degree. [F,S]

PHED 1820 Beginning Table Tennis (1) [F,S]

PHED 1830 Racquetball (1) [F,S]

PHED 1840 Volleyball (1) [F,S]

PHED 1850 Basketball (1) [F]

PHED 1860 Golf (1) [F]

#### PHED 1870 Beginning Tennis (1) [E]

PHED 1880 Intermediate Tennis (1) [on demand]

#### PHED 1890 Wallyball (1)

Repeatable; maximum of 2 hours applicable toward a degree. [F,S]

#### PHED 1895 Bowling (1)

Repeatable; maximum of 2 hours applicable toward a degree. [F,S]

#### PHED 1990 Special Topics: Physical Education Activity (1-2)

Repeatable for credit on different topics; maximum of 6 hours applicable toward a degree. [on demand]

## **PHIL - Philosophy**

#### PHIL 1030\* Introduction to Philosophy (3)

An introduction to life's fundamental questions. Addresses issues pertaining to rationality, value, knowledge, and reality. Prereq: ENGL-1010. [E]

#### PHIL 1130 Critical Thinking (3)

An introduction to practical reasoning and how to think critically. [S]

#### PHIL 2130 Formal Logic (3)

An introduction to formal deductive logic: syllogistic, modal, propositional, and predicate arguments. [F]

#### PHIL 2230\* Ethics (3)

A study of the challenges faced by traditional morality, the major ethical theories, and moral dimensions of specific issues. Prereq: ENGL-1010. [F,S]

#### PHIL 2430 Philosophy of Religion (3)

Philosophical examination of religion; issues include the existence and nature of God, relationship between faith and reason, and challenges to religious belief. Prereq: ENGL-1010. [on demand]

#### PHIL 2990 Special Topics in Philosophy (3)

Special topics of traditional and current relevance in Philosophy; repeatable for credit on different topics. Prereq: ENGL-1010. [on demand]

#### **PHYS - Physics**

#### PHYS 1000 Basic Technical Physics (3)

Preparation for college physics for students with no previous physics and/or weak math background; algebraic equations, trigonometry and vectors; intro to physical mechanics; not intended for transfer; not accepted toward any degree program at Chattanooga State. Recommended coreq: MATH-1710 or 1740. [F]

#### PHYS 1030\* Concepts of Physics (4)

One semester intro physics course for non-science and non-engineering majors; focus on the nature of physics and applying basic physics concepts in everyday life experience and work; math limited to basic algebra required to understand and apply physics concepts; mechanical motion, energy, temperature and heat, fluids, electricity, magnetism, wave motion and optics; class 3 hours, lab 3 hours. [E]

#### PHYS 2010\*,2020\* Non–Calculus-Based Physics I,II (4,4)

Algebra-based physics for engineering technology and preprofessional majors; class 3 hours, lab 3 hours. *2010*–Mechanics, heat and thermodynamics. *2020*–Electricity and magnetism, ray and wave optics. Must be taken in sequence. Prereq for 2010: PHYS-1000 or equivalent. Coreq for 2010: MATH-1720 or 1750. [2010–E; 2020–S,Su]

#### PHYS 2110\*,2120\* Calculus-Based Physics I,II (4,4)

Calculus-based physics; for engineering and science majors; class 3 hours, lab 3 hours. **2110**–Mechanics: statics, kinematics, work, energy, power, momentum, conservation laws, heat, rotation and harmonic motion, and thermodynamics. **2120**–Electrostatics, fields and potentials, electromotive force, AC/DC circuits, electromagnetism, capacitance and inductance, and electromagnetic waves. Must be taken in sequence. Prereq for 2110: MATH 1910, PHYS-2010; or departmental consent. Coreq for 2110: MATH-1920. [2110–F, 2120–S]

## **PO - Political Science**

#### PO 110\* Introduction to American Government (3)

Basics of democratic government; constitutional principles, functions, operations, and processes of governmental change; attention given to the role of political institutions and parties, public opinion, interest groups and the media. [F,S]

#### PO 112\* Introduction to World Politics (3)

World politics with emphasis on international competition, cooperation, war, and peace. Theories explain political and economic events, military conflicts, and how domestic politics are linked to foreign policy. The behavior of states and non-state actors are linked to the evolution of the contemporary world order. [F,S]

#### PO 217 Introduction to Urban Politics (3)

Historical and policy investigation of urban politics in American government and the evolutionary place of cities in American politics and society. Prereq: ENGL 1010, PO 110. [F,S]

#### PO 218 The American Presidency (3)

This course examines the growth and development of the Presidency and its place in the American political system. Topics covered include policy, image, campaigning, domestic and foreign policies, and the economy. Prereq: ENGL 1010, PO 110. [F,S]

#### PO 219 State and Local Government (3)

Intro to state and local government; focus on the interrelationships between state and local, state and federal, and local and federal governments. [F]

#### PO 220 Comparative Governments (3)

A comparison of the basic principles of the presidential, parliamentary, presidentialparliamentary, and totalitarian systems of government. Prereq: PO 110,112. [on demand]

#### PO 240 International Relations (3)

An examination of the external factors affecting the American political system. Emphasis is given to the role of the United States as a nation-state by examining behavior and the nature of interaction with international powers. Prereq: PO 110,112. [on demand]

#### PO 260 American Foreign Policy (3)

Selected themes in American foreign policy. Emphasis on the trends of American foreign policy from the beginning of the nation's history up to the present. Prereq: PO 110,112. [on demand]

#### **PSCI - Physical Science**

**PSCI 1030\* The Physical Environment (4)** Explores physical science in its historical and sociological significance, the process of science, and the present content of scientific fact and theory; includes physics, chemistry, geology and astronomy; class 3 hours, lab 3 hours. [F,S]

#### **PSCI 2990 Special Topics in Science (1-4)**

Study of a specific topic in science; repeatable for credit on different topics. Prereq: Department head and instructor's consent. [on demand]

## **PT - Physical Therapist Assistant**

Admission to the Physical Therapist Assistant Program is a prerequisite for all PT courses. Please consult the SUMMARY OF REQUIRED HOURS; all PT courses shown in the same term are corequisites, all PT courses shown in the preceding term(s) are PT prerequisites, and all BIOL and PHYS courses are pre/corequisites to PT courses as shown.

## PT 104 Introduction to Physical Therapy (2)

History, function, purpose of physical therapy; PTA's role in ethics, medical-legal issues, medical terminology, administration and communication skills with all clients/patients/and other care providers. [F]

#### PT 111,210,221 Clinical Practice I,II,III (2,4,10)

Clinical experience in local health care facilities; students observe and apply skills and interventions learned in class and lab under direct supervision of PTs or PTAs; clinic hours: 6 in 111, 12 in 210, 30 in 221; Satisfactory/No Credit grading; liability insurance required. [111–S, 210–F, 221–S]

#### PT 112 Pathological Conditions (3)

Survey of diseases and injuries treated by physical therapy; associated medical or surgical treatment of these conditions; physical therapy treatment for specific conditions. [S]

#### PT 115,125 Physical Therapy Procedures I,II (5,4)

Physical therapy principles; class 3 hours, lab hours: 6 in 115, 3 in 125; liability insurance required. *I15*–Basic principles, interventions and modality techniques. *125*–Focus on spinal traction, electrical stimulation, biofeedback, pain control, protocol exercise routines, iontophoresis, CPM, manual muscle testing. [115–F, 125–S]

#### PT 123 Functional Anatomy (4)

Integrates muscle innervation, position, and function of the musculoskeletal system for specific joints and their muscular components; palpation skills, joint range of motion, goniometry, and manual muscle testing; biomechanical concepts related to simple movement analysis and kinesiology; class 3 hours, lab 3 hours. [F]

#### PT 201 Physical Therapy Seminar (2)

Critique sessions concerning physical therapy interventions and clinic participation; student presentations on PT interventions for specific pathologies, specific process for licensure. [S]

#### PT 205 Therapeutic Exercise (5)

Principles and uses of therapeutic exercises and exercise equipment options; special assessment procedures, exercise techniques, neurodevelopmental exercises, and techniques utilized in specific conditions; intro to orthotics, prosthetics, splinting and gait analysis; class 3 hours, lab 6 hours. [F]

#### Public Speaking, See "SP-Speech"

## PY - Psychology

#### PY 101\* General Psychology (3)

Intro survey course; study of mental processes and human behavior to better understand ourselves and anticipate and predict the behavior of others; history and methods of psychology, principles of human development (infancy through adulthood), motivation, emotion, stress, learning and remembering, and abnormal psychology. [E]

## Secretarial Science, See "MG-Management/Office Management Concentration"

## **SO** - Sociology

#### **SO 110\*** Introduction to Sociology (3)

Intro to field of sociology; focus on basic concepts, principles, and processes used to study the structure and function of society. [E]

#### SO 202 Social Problems (3)

Study of social problems in the U.S.; provides sociological perspective for making sense of future developments in our society. Prereq: ENGL 1010, SO 110. [F,S]

#### SO 214 Introductory Criminology/Criminal Justice (3)

An overview of principles of criminology and the criminal justice system, analyzing how the criminal justice system currently operates in its three major components: police, courts, corrections. A broad-based interdisciplinary perspective is employed to introduce the student to theories of crime and the process of criminal justice in modern America. The following is also examined; what constitutes a crime; the relevance of crime statistics; the social costs of crime; variation in public crime policy and its effects on society. [F]

#### SO 215 Marriage and Family (3)

Emphasizes values and family dynamics of contemporary American life; helps students make knowledgeable choices in their interpersonal lives by providing sound facts and using a problemsolving approach. Prereq: ENGL-1010. [F,S]

#### SO 216\* Cultural Anthropology (3)

Comparative study of culture, social organization, economics, government, education, religion, language, and arts in various primitive and present societies. [E]

#### SO 217 Sociology of Aging (3)

Basic course in social gerontology; focus on the aging process and the problems of the aged. [on demand]

#### **SO 218 American Ethnic Relations (3)**

Sociological analysis of racial and ethnic relations in the United States. Historical and sociology overview of race and ethnicity focusing primarily on four ethnic groups: Native Americans, African Americans, Latinos, and Asian Americans. Brief analysis of white ethnic Americans of Irish, Italian, and Jewish ethnicities. Emphasis on group interrelations and their relations with the dominant culturre. Global issues of race and ethnicity provide parameters for understanding issues within the United States. Prereq: ENGL 1010. [S]

#### SO 219 Violence and Society (3)

Historical investigation into violence in American society and the evolutionary response of criminal justice agencies. Prereq: ENGL-1010. [F,S]

## SO 235 Special Topics in Sociology (1-3)

Specific topics of traditional and current sociological interest; repeatable for credit on different topics. Prereq: ENGL-1010. [on demand]

Sonography, See "US-Diagnostic Medical Sonography"

#### **SP** - Speech

# SP 110\* Fundamentals of Public Speaking (3)

Introductory public speaking course stressing organization and presentation of the extemporaneous speech in a variety of formats. Prereq. ENGL 1010, [E]

# SP-120 Interpersonal Communication Skills (3)

Covers basic interpersonal communication skills including listening, nonverbal awareness, interviewing and conflict management; focuses on strategies for college, personal and professional success. [on demand]

#### SP 235 Special Topics in Speech (1-3)

Specific topics in speech communication and forensics; repeatable for credit on different topics. Prereq: ENGL-1010 with grade of C or better. [on demand]

## **SPAN - Spanish**

#### SPAN 1010,1020 Elementary Spanish I,II (4,4)

Elementary grammar, vocabulary, reading, idiomatic conversation, and Spanish culture. Must be taken in sequence. [F,S]

#### SPAN 2010,2020 Intermediate Spanish I,II (3,3)

Intermediate grammar, reading and conversation. Must be taken in sequence. 2010–Focus on oral skills and Spanish culture. 2020–Focus on reading and translation. Prereq: SPAN-1020 or 2 years of high school Spanish. [2010–F, 2020–S]

#### **SPECIAL INTEREST COURSES**

The following courses are offered as a community service and are not intended to be used to satisfy the foreign language requirement or remove high school deficiencies for any degree program at Chattanooga State or any other college or university.

#### SPAN 1000,2000 Conversational Spanish I,II (2,2)

Everyday Spanish language and culture; focus on spoken language. *1000*–Basic vocabulary and idiomatic expressions in real-life situations. *2000*– Sophisticated vocabulary and complex grammar structures: discussion and debate of politics, environment and current events. [1000–F,S; 2000–S]

#### SPAN 1002 Medical Spanish (2)

Basic vocabulary to communicate at the elementary level in everyday situations in the medical field. [F,S]

#### SPAN 1990 Spanish Field Work (3)

Basics of teaching Spanish: includes observation/ participation; class 2 hours, lab 2 hours. Prereq: SPAN-1020. [on demand]

#### SPAN 2811,2812,2813,2814 Spanish for Healthcare Professionals I,II,III,IV (1,1,1,1)

Spanish language development for medical profess ionals'interaction with patients and staff including basic conversation, medical questions, medical terms, and cultural elements. 2811–Introduction to language, conversation, culture; 2812–Focus on more complex dialogues, introduce medical terms; 2813–Expand dialogue skills, study culture, build medical term knowledge;2814–Focus on medical interviews, explaining diagnoses, building cultural bridges. Must be taken in sequence.[on demand]

#### SPAN 2821 Spanish for Human Resources Professionals I (1)

Spanish language development for human resources professionals' interaction with employees and applicants including basic conversation, interview questions, human resources related terms, and cultural elements. [on demand]

#### SPAN 2831 Spanish for Business Professionals I (1)

Spanish language development for business professionals' interaction with employees and applicants including basic conversation, sales presentations, business related terms, and cultural elements. [on demand]

#### SPAN 2841 Spanish for Education Professionals (1)

Spanish language development for educational professionals' interaction with employees, parents and students including basic conversation, education related terms, and cultural elements. [on demand]

#### SPAN 2990 Special Topics in Spanish (1-3)

Specific topics pertaining to Spanish language and culture; repeatable for credit on different topics. Prereq: Instructor's consent. [on demand]

Sustainability, See "ESC-Environmental Science"

## TFAP - Technology Foundations in Basic Anatomy & Physiology

#### TFAP 0000 Technology Foundations in Basic Anatomy & Physiology

Human anatomy and physiology related to body systems; relationship between structural and functional roles of system components; basic histology and terminology. The class is an 8-week, 160 clock hour course. [U]

## TFMA - Technical Foundations in Mathematics

#### TFMA 0000 Technology Foundations in Mathematics

Course of study includes whole numbers, fractions, decimals, percents, ratio and proportion; 5-clock hours/week.

#### **THEA** - Theatre

#### THEATRE-GENERAL COURSES

#### THEA 1001 Artist in Residence (1-3)

Visiting artists interact with students in lectures and workshops; 2 workshops for 1 credit; 3 workshops for 2 credits; 4 workshops for 3 credits; repeatable; maximum of 3 hours applicable toward a degree. [F,S]

#### THEA 1030\* Introduction to the Theatre (3)

Representative survey of drama and stagecraft from its beginning to the present; analysis of significant plays from outstanding periods of theatre history; enhances understanding and appreciation of the theatre. [E]

#### **THEA 1990 Performance and Production (3)**

Basic principles of performance and play production for non-majors; includes developing and presenting a public performance. [on demand]

#### THEA 2430,2440 Musical Theatre Performance I,II (2,2)

2430–Performance techniques used in modern musical theatre productions/auditions; voice, acting, and movement for the stage developed through scene studies from musical theatre repertory. 2440–Advanced rehearsal and performance techniques and performance of a Musical Theatre Play. Prereq for 2440: THEA 2430 or instructor's consent. [on demand]

#### THEA 2810 Actor's Workshop (3)

Ongoing study in the foundational skills of acting and improvisation for students interested in a a career in the theatre arts, television and film. Repeatable for credit; maximum of 3 hours applicable toward a degree. [F,S]

## THEA 2990 Special Topics in Drama (3)

Study of topics relating to the historical and cultural significance of theatre; repeatable for credit on different topics. [on demand]

#### **PROFESSIONAL ACTOR TRAINING COURSES**

Admission to participate in the Professional Actor Training is a prerequisite for Professional Actor Training courses. All Fall Semester courses are prerequisite to all Spring Semester courses, and all courses taught in the same term are corequisites. Designated courses are repeatable for credit, but no more than 12 hours of Applied Instruction and/ or Performing Ensemble, in any combination, may be applied toward a degree.

#### **APPLIED INSTRUCTION COURSES:**

#### THEA 1110,1120,2110,2120 Acting I,II,III,IV (3,3,3,3)

1110–Introduces foundational skills of acting to students interested in a career in theatre arts. 1120–Explores the use of senses, response, and imagination to develop and enhance actor's performance skills. 2110–Develops and integrates voice, body, and face to enhance actor's performance skills in classical and contemporary dramas. 2120–Applies collective knowledge and skills gained in the professional theatre program in context of a full-scale performance. Must be taken in sequence. [1110, 2110-F; 1120, 2120-S]

#### THEA 1230,1235,2230,2235 Movement I,II,III,IV (3,3,3,3)

1230–Principles and techniques of improvisational dance and movement; exploration of movement as an integral part of the actor's performance skills. 1235–Advances the skills of THEA 1230. 2230– Advances the skills of THEA 1235 so that students are more fully prepared for dramatic performance situations. 2235–Advances the skills of THEA 2230 so that students are more fully prepared for contemporary and musical theatre performance situations. Must be taken in sequence. [1230, 2230-F; 1235, 2235-S]

#### THEA 1310,1320,2310,2320 Production I,II,III,IV (3,3,3,3)

1310-Fundamental knowledge of vocabulary, principles and techniques employed in major theatrical production; basic principles and techniques of stagecraft, lighting, costuming and sound; hands on application in actual theatrical productions. 1320-Review of the vocabulary, tools and techniques of theatre craft; introduction of process, prinicples, and techniques of scenic, lighting, and costume design; practical projects in each design area. 2310-Introduction to publicity, tickets, programs, ushering, and house management in the theatre; includes overview of process and internship in production of a play or performance. 2320-Introduction to the business of acting; includes photos and resumes, auditioning techniques, scenes and monologues for auditions, and how to market oneself as an actor. Must be taken in sequence. [1310, 2310-F; 1320, 2320-S]

#### THEA 1410,1420,2410,2420 Voice and Speech I,II,III,IV (3,3,3,3)

1410–Introduces concepts and practices to develop a voice suitable for theatrical performance. 1420–Provides opportunity to train the voice for a wide range of situations in theatrical performance. 2410–Extends student's ability to employ his/her voice to express emotion, develop character, and enhance performances. 2420–Prepares student to apply voice and speech skills to a professional performance. Must be taken in sequence. [1410, 2410-F; 1420, 2420-S]

#### THEA 1520,1525,2520,2525 Improvisation I,II,III,IV (3,3,3,3)

1520–Introduces foundational skills of improvisational acting to students interested in a career in the theatre arts. 1525–Advances skills of students to prepare them for performance situations. 2520–Advances skills of students; engages them in performance situations. 2525–Advances skills of students; engages them in professional performances. Must be taken in sequence. [1520, 2520-F; 1525, 2525-S]

#### THEA 2810 Actor's Workshop (3) moved to "THEA - Theatre" afer THEA 2430,2440

#### **TM - Computed Tomography**

The following 3-course set provides formal specialized training in CT whole-body imaging prior to independent performance. All 3 courses must be taken together. Prereq: Graduate of CAHEA/JRCERT accredited Radiologic Technology Program and certified or eligible for certification by American Registry of Radiologic Technologists.

#### TM 210 Computed Tomography Patient Care and Management (3)

Patient care and management, whole body crosssectional anatomy, pathology, imaging procedures with protocols, special procedures in CT. [F]

#### TM 220 Computed Tomography Physics (3)

History of CT, computer basics, scanning methods, digital imaging, quality control, radiation protection. [F]

#### TM 230 Computed Tomography Clinic (4)

Supervised performance of computed tomography of head, neck, spine, chest, abdomen, pelvis and musculoskeletal system at program approved CT facility in student's geographic area. [F]

#### Truck Driving, See "CD-Commercial Truck Driving"

#### **US - Diagnostic Medical Sonography**

OLD: Admission to the Diagnostic Medical Sonography Program is a prerequisite for all US courses unless otherwise noted. Please consult the SUMMARY OF REQUIRED HOURS. All courses shown in the same term are corequisites and all courses shown in the preceding term(s) are prerequisites.

NEW: Admission to the Diagnostic Medical Sonography or Cardiovascular Sonography Program (or part-time Breast Sonography course sequence) is a prerequisite for all US courses. Please consult SUMMARY OF REQUIRED HOURS. All courses shown in the same term are corequisites and all courses in the preceding term(s) are prerequisites. Effective Fall 2007

#### US 200 Introduction to Diagnostic Medical Sonography (2)

Basic ultrasound instrumentation and clinical terms; cross-sectional/sagittal anatomy review; rules, regulations, clinical affiliates, diagnostic ultrasound history and student-instructor responsibilities in clinical settings; liability insurance fee required. [F]

#### US 201,211,221 Ultrasound Physics I,II,III (2,2,2)

Physics of diagnostic medical sonography; correlation with instrumentation procedures; class 2 hours, lab 1 hour. 201–Sound wave characteristics, matter-ultrasound interaction; basic algebraic review. 211–Real-time ultrasound transducer characteristics, the ultrasound beam, and the imaging process; application of theoretical concepts in lab. 221–Focus on instrumentation and clinical environment; artifactual image analysis and corrective factors, quality control measurements and observations, and ultrasound's biologic effects; advanced scanning techniques, including Doppler and color flow principles. [201– F, 211–S, 221–Su]

#### US 202,212,222 Obstetrics and Gynecology I,II,III (4,2,3)

A 3-course sequence in female pelvic & obstetrical ultrasound. **202**–Physiological processes affecting imaging; pathological processes and sonographic appearance. **212**–Fetal anatomy; gestational age estimation; fetal anomaly detection and

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intrauterine growth retardation; transabdominal and transvaginal techniques for assessing early intrauterine and ectopic pregnancies. 222–Advanced fetal and pelvic sonography techniques; multiple gestations, antenatal syndromes, placental, umbilical cord and membrane evaluation; fetal and maternal disorders; intro to infertility studies; uncommon pathological processes in nongravid pelvis. [202–F, 212–S, 222–Su]

#### US 203,213,223 Abdominal and Small Parts I,II,III (4,2,3)

203–Abdominal organs, their relation and normal sonographic presentation; physiologic process; metabolic functions; importance of lab data. 213–Pathologic patterns of abdominal organs; relation to sonographic appearance, physiologic changes, and lab findings; anatomic variations; Doppler and color-flow technique in vascular anatomy evaluation. 223–Neonatal encephalography and demonstration of anatomy and pathology of superficial structures (small parts). [203–F, 213–S, 223–Su]

#### US 204 Cardiovascular Anatomy & Physiology (3)

OLD: Please contact the Allied Health Department for further information. Prereq: Admission to Cardiovascular Program. Coreq: US 206; 208 or 209. [F]

*NEW:* To demonstrate the role of sonography in the evaluation of the cardiovascular system. The student will map the arterial and venous systems from the heart through the abdomen and throughout the periphery. Emphasis will be placed on abdominal vasculature, and cardiac anatomy and physiology, with an introduction to echocardiography protocol. The student will also become familiar with basic ECG interpretation, learning the relationship between ECG timing and cardiac events, as seen in the echocardiogram. [F] Effective Fall 2007

## US 205,215,225 Clinic I,II,III (7,2,2)

Increasing development of sonographic knowledge and skills in the clinical setting; performance of sonographic exams under clinical supervision; weekly case studies and imaging critiques; clinic hours: 540 in 205, 520 in 215, 420 in 225. **205**–Intro to the sonographic imaging process and the clinical setting; exam protocol; operation of ultrasound instrumentation. **215**–Normal anatomy; pathology and abnormal physiological processes. **225**–Focus on completion of all clinical objectives. [205–F, 215–S, 225–Su]

#### US 206 Cardiovascular Hemodynamics (3)

OLD: Please contact the Allied Health Department for further information. Prereq: Admission to Cardiovascular Program. Coreq: US 204; 208 or 209. [F]

*NEW:* Assessment of vascular hemodynamics for the cardiovascular sonography student through a topic-based analysis of various abdominal vascular structures, as well as an introduction to lower venous examinations and indirect pulse) recognition of potential arterial disease of the lower extremities. [F] Effective Fall 2007

#### US 207 Breast Sonography (4)

Specialty course for development of a breast imaging specialist, providing a comprehensive review of sonography's targeted role in the diagnosis and treatment of breast disease, while comparing mammography and other  imaging techniques, to apply to an appropriate understanding of scanning principles for optimal diagnostic results. Achievement of course competencies will assist in preparation of the breast sonography certification examination.
 Prereq: US 200, 201. Coreq: US 245, 255, or 265.
 [S] Effective Fall 2007

#### US 208,218,228 Vascular Clinic I,II,III (3,2,2)

Progressive development of vascular sonographic skills. Case group studies and imaging critiques will be performed, and the student's performance will be evaluated through clinical competencies in each related category through sonographer and instructor evaluations.

208-An introduction to the vascular sonographic imaging process. The student will become familiar with the clinical setting, the operation ultrasound instrumentation, exam indications, and the required protocol for vascular sonography exams. 218-The student will have the opportunity to develop increased knowledge and skills in performing vascular examinations and demonstrating normal anatomy, physiology and pathology. Pathologic processes shall be further described to build on the student's present understanding of abnormal physiological processes. 228-The student will continue performance of vascular exams under clinical supervision. Special emphasis will be given to final category evaluations and completion of all clinical objectives in specified vascular categories. Prereq for 208: Admission into Cardiovascular Program. Coreq for 208: US 204, 206. Prereq for 218: US 208. Coreq for 218: US 214. Prereq for 228: US 218. Coreq for 228: US 224. [F,S,U] Effective Fall 2007

#### US 209,219,229 Echocardiography Clinic I,II,III (3,2,2

Progressive development of echocardiography imaging skills. Case group studies and imaging critiques will be performed, and the student's performance will be evaluated through clinical competencies in each related category through sonographer and instructor evaluations. OLD: 209-The student will become familiar with the clinical setting, the operation ultrasound instrumentation, exam indications, and the required protocol for adult echocardiography sonographic exams. NEW: 209-An introduction to the adult cardiographic imaging process. The student will become familiar with the clinical setting, the operation ultrasound instrumentation. exam indications, and the required protocol for adult echocardiography sonographic exams. Case group studies and imaging critiques will be performed, and the student's performance will be evaluated through clinical competencies in each related category through sonographer and instructor evaluations. Effective Fall 219-The student will have the opportunity to develop increased knowledge and skills in performing echocardiographic examinations and demonstrating normal anatomy and pathology. Pathologic processes shall be further described to build on the student's present understanding of abnormal physiological processes. 229-The student will continue performance of

adult echocardiography exams under clinical supervision. Special emphasis will be given to final category evaluations and completion of all clinical objectives in specified adult echocardiography categories. Prereq for 209: Admission to Cardiovascular Program. Coreq for 209: US 204, 206. Prereq for 219: US 209. Coreq

# for 219: US 216. Prereq for 229: US 219. Coreq for 229: US 226 [F,S]

#### **US 210 Ultrasound Administration (1)**

Research, quality control, and accreditation practices and procedures of a general sonography department; research paper, oral presentation, and group accreditation project. [S]

#### US 214,224 Vascular Testing I,II (2,3)

Please contact the Allied Health Department for further information. Prereq for 214: US 204,206. Coreq for 214: US 218. Prereq for 224: US 214. Coreq for 224: US 228. [S,U] Effective Fall 2007

#### US 216,226 Adult Echocardiography Testing I,II (2,2)

Please contact the Allied Health Department for further information. [S,U] Effective Fall 2007

#### **US 220 Ultrasound Seminar (2)**

Integrated coverage of ultrasound topics related to image production/evaluation, ultrasound procedures, and patient care and management; focus on needed skills, attitudes and knowledge for judgment and discretion in ultrasound imaging. [Su]

#### US 231 Vascular Physics (3)

Review and extension of general ultrasound physics; principles of vascular physiology and hemodynamics; other physics principles related to vascular physics. Prereq: Successful completion of a CAAHEP-accredited general sonography program or a physics examination administered by ARDMS. [F,S]

#### US 245,255,265 Breast Sonography Clinic I,II,III (4,4,4)

245-An introduction to basic scanning and patient care skills and physical principles for the sonographer, as related to breast sonography for the clinical breast specialist. Appropriate protocols will be introduced, along with operation of ultrasound instrumentation. 255-Builds upon scanning, patient care skills and physical principles introduced in US 245. Competency in breast protocols and instrumentation will be demonstrated; differential diagnoses and utilization of specialized procedures will be introduced. 265-Progression from skills developed in the US 255 course, with final assessment of scanning, patient care skills and physical principles for the breast sonographer imaging specialist. The formulation of differential diagnoses and the utilization of specialized procedures will be introduced. Prereq for 255: US 245; Coreq for 255: US 200,201,207 if not ARDMS certified. Prereq for 265: US 200,207,255. Coreq for 265: US 211 IF NOT ARDMS certified. In all courses, case studies, competency objectives, and image critiques will serve as assessment mechanisms during the mentoring process. Malpractice insurance is required for all clinics. [On Demand] Effective Fall 2007

# VC - Motor Sports Vehicle Technology

#### VC 000 Motor Sports Vehicle Technology

To provide training to those with an interest in constructing vehicles in racing industries by focusing their skills and knowledge development in four areas: Machining, Welding, Basic Engine Performance, and Advanced Engine Performance.

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## **VETT - Veterinary Technology**

#### VETT 1010 Introduction to Veterinary Technology (3)

Introduction to the animal health care profession. Topics will include career choices, animal welfare, breed identification, basic concepts of husbandry, nutrition and occupational safety. Overview of clinic/hospital management techniques and skills, concepts of human animal bonds, pet loss, euthanasia communication strategies and an introduction to the agencies, ethics, and laws pertaining to the animal health care industry. [F]

#### VETT 1015 Pharmacology & Pharmaceutical Calculations (4)

Pending Curriculum Committee Approval Introduction to major drug classifications and federal regulatory guidelines. Proper techniques in use, administration, and control of pharmaceutical agents. Recognize actions and interactions in various animal breeds and species. Develop skills in pharmaceutical computations, measurements, mixtures and conversion factors. Class 3 hours, lab 3 hours. [Su]

#### VETT 1020 Animal Anatomy & Physiology

(4) OLD: Pending Curriculum Committee Approval

Focus on the detailed anatomy and related basic physiology of selected animal species. Topics include the interrelationships between major body systems as well as the study of special sense organs. Labs will include skeletons, live animals and cadavers. Class 3 hours, lab 3 hours. [S] *NEW:* This class focuses on the detailed anatomy and related basic physiology of selected animal species. Topics include the interrelationships between major body systems as well as the study of special sense organs. Labs will include skeletons, live animals and cadavers. Class 3 hours, lab 3 hours. Prereq: VETT 1010. [S]

#### VETT 2000 Lab Procedures (4)

#### <u>OLD: Pending Curriculum Committee</u> Approval

Prepare the student for specimen management including techniques of proper preparation, handling and analysis; recognize relationships to fields of dermatology, mycology, virology, microbiology, histology, parasitology, pathology and toxicology; to become familiar with use and maintenance of lab equipment and be able to perform a variety of commonly used laboratoryevaluations, Class 3 hours, lab 3 hours. Prereq: <u>CHEM 1010, VETT 1010. [S]</u>

#### *NEW:* Prepare the student for specimen management including techniques of proper preparation, handling and analysis; relationships to fields of dermatology, mycology, virology, microbiology, histology, parasitology, pathology and toxicology; to use and maintenance of lab equipment and ability to perform a variety of commonly used laboratory evaluations. Class 3 hours, lab 3 hours. Prereq: CHEM 1110, VETT 1010. [S]

#### VETT 2010, 2020, 2030 Clinical Practicum I,II,III (4,4,4)

**Pending Curriculum Committee Approval** Students are required to participate in a handson work experience at an assigned off-campus facility; private practice, business, industry, or government. The student will be involved in all aspects of the day-to-day operation of the facility. Prereq for 2010: BIOL 1110, VETT 1020, 2000. Prereq for 2020: VETT 2010. Prereq for 2030: VETT 2020 [Su,F,S]

## **VETT 2015 Animal Nursing (4)**

**Pending Curriculum Committee Approval** Introduction and application of patient assessment techniques, including history taking, basic physical examination, therapeutic bathing, grooming, nail trims, and restraint. Additional topics include basic patient care including wound management and bandaging, fluid therapy, special nutritional requirements and therapeutics. Class 3 hours, lab 3 hours. Prereq: VETT 1020. [F]

#### VETT 2016 Topics in Veterinary Technology (3)

**Pending Curriculum Committee Approval** Study of select current topics pertaining to the field of veterinary technology. Exotic, laboratory and wildlife animal issues, care and handling will be addressed as well as refinement of skills, techniques and review of other pertinent materials. Field trips will be used to facilitate course materials when possible. Prereq: VETT 1020. [S]

#### VETT 2040 Anesthesia & Surgical Nursing (4)

**Pending Curriculum Committee Approval** Coverage of the safe and effective management of patients undergoing anesthesia and surgical procedures. Topics include calculations and administration of drugs, monitoring and management of patient status, operation and maintenance of anesthetic equipment. Surgical nursing emphasis placed on pre-op assessment and prep of the patient, post-op assessment and care of the patient as well as surgical set up and assistance. Class 3 hours, lab 3 hours. Prereq: VETT 1015. [S]

#### VETT 2050 Imaging (4)

**Pending Curriculum Committee Approval** Overview of the theory and safe application of radiological techniques in order to produce diagnostic films. Topics addressed will include patient handling, restraint and positioning, correct use and maintenance of radiographic films and equipment and introduction to special contrast techniques. Class 3 hours, lab 3 hours. Prereq: VETT 2000. [F]

#### WD - Welding

# WD 000 Welding Technology

Theory and practice in welding; oxyacetylene flame cutting, welding and brazing; MIG welding procedures; gas metal arc welding on aluminum; TIG welding on mild steel plate and aluminum; gas tungsten arc pipe welding; flux cored arc welding, covering self shielding and shielded flux cored electrode wire; welding instruction and practice in all positions on thin and thick gauge aluminum and 11-gauge plate; math and blueprint reading for welding; 30 clock hours/week. [E]

#### Wellness, See "PHED-Physical Education"

#### X-Ray Technology, See "RT-Radiologic Technology"

#### **YT - Cosmetology Instructor Training**

#### YT 000 Cosmetology Instructor Training

This course is a presentation of concepts of instruction in cosmetology. Topics include history of teaching, educator characteristics, curriculum development-evaluation, and teaching assessment in techniques. This course is a combination of lecture and lab (300 contact hours). [on demand]

# NOTICE OF COURSE NUMBER AND TITLE CHANGES

#### **EFFECTIVE FALL 2006**

EG124 renumbered to EG225

- BU173 Legal Environment of Business renumbered to BU211
- Name was changed from Business Law I to Legal Environment of Business
- BU175 renumbered to BU212
- Name was changed from Business Law II to Business Law

Name change from Intro to Engineering Computations to Engineering Programming EG274 renumbered to EG104 Name was Engineering Mechanics to Vector Statics

# **EFFECTIVE SPRING 2007**

EG285 Mechanics of Materials Lab renumbered to EG247 PY251 Psychology of Personal Adjustment renumbered to PY151 SO120 Social Problems renumbered to SO202

EG284 renumbered to EG246 Name was changed from Mechanics of Solids to Mechanics of Materials EG294 Dynamics renumbered to EG248

# Governance

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# **Tennessee Higher Education Commission**

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\*The offense of misrepresentation of academic credentials constitutes a Class A misdeamonor.

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