

### 2009-2010 Catalog Supplement

The 2008-2009 Catalog remains in effect for the 2009-2010 academic year with the updates and additions published in this Catalog Supplement.

## CAPITOL COLLEGE

### 2009-2010 Catalog Supplement

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### **General Information**

### Directory

### **Capitol College**

11301 Springfield Road Laurel, MD 20708-9758

### Main Telephone Numbers

301-369-2800 888-522-7486

#### Admissions

 Washington, DC
 301-953-3200

 In-State
 800-950-1992

 Out-of-State
 888-522-7486

 Fax
 301-953-1442

 Undergraduate Admissions Email

Undergraduate Admissions Email admissions@capitol-college.edu

Graduate Admissions Email gradadmit@capitol-college.edu

#### Website

www.capitol-college.edu

#### Office Hours

The following offices are open Monday through Friday, 8:30 a.m.- 5 p.m. (EST).

#### President

Vice President for Academic Affairs
Vice President for Finance and
Administration
Vice President for Planning and
Assessment
Administration and Human Resources
Advancement and Alumni Services
Career Services\*
Office of the Deans
Marketing and Communications

The following offices are open as indicated (EST).

#### Admissions

M, F 9 a.m.- 5 p.m. T-Th 9 a.m.- 7 p.m. Saturday appointments are available.

#### **Business Office**

M, F 9 a.m.- 5 p.m. T-Th 9 a.m.- 7 p.m.

#### Financial Aid

M, F 9 a.m.-5 p.m. T-Th 9 a.m.- 7 p.m.

#### Registration and Records

M, F 9 a.m.- 5 p.m. T-Th 9 a.m.- 7 p.m.

#### Student Life

M-W 9 a.m.-7 p.m. Th, F 9 a.m.- 5 p.m.

### **Emergency Closing**

In the event of severe weather or other emergencies, any possible cancellations or late openings will be announced to area radio and television broadcasts and posted on the college website.

The college maintains a recorded message at 301-369-2800, 888-522-7486, 800-950-1992 and 301-953-3200 and posts a weather advisory on the website when possible. Due to power outages and other circumstances that occur during adverse weather, it is not always possible to update this information. It is the responsibility of students to tune in to the radio or television for announcements.

The television channels and radio stations notified by the college are listed in the student handbook and on the college website.

<sup>\*</sup>Evening appointments are available.

### Catalog Supplement

This Catalog Supplement is intended to provide information regarding changes to the college catalog for the 2009-2010 academic year. Information in this document is not complete; it only represents changes from the 2008-2009 Catalog. Unless superseded by this document, the information in the 2008-2009 Catalog remains in effect.

The information that follows on this page and the following page has not changed.

## Changes in Catalog Information

Capitol College reserves the right to make changes in policies, procedures, degree requirements, schedules, course offerings and other college standards or announcements to meet circumstances that may arise after publication.

The provisions of this publication are not to be regarded as an irrevocable contract between the student and Capitol College. The college reserves the right to change any provision or requirement in any college publication without notice at any time during the student's term of attendance.

Capitol College reserves the right to require a student to withdraw, or to refuse to grant a degree or certificate if, in the judgment of the administration of the college, the student fails to meet the college's requirements satisfactorily. The college reserves the right to change tuition and fees at any time at the discretion of the Board of Trustees.

### Accreditation

Capitol College is authorized by the state of Maryland (Maryland Higher Education Commission, 839 Bestgate Road, Suite 400, Annapolis, MD 21401, 410-260-4500) to confer bachelor of science (BS) degrees in astronautical engineering, business administration, computer engineering, computer science, electrical engineering, information assurance, management of information technology, software engineering and software and Internet applications. The college is authorized to confer BS and associate in applied science (AAS)

degrees in computer engineering technology, electronics engineering technology, and telecommunications engineering technology. The BS programs in business administration and management of information technology are fully accredited by the International Assembly for Collegiate Business Education (IACBE, PO Box 25217, Overland Park, KS 66225).

The college is authorized by the state of Maryland to confer master of science (MS) degrees in computer science, electrical engineering, information assurance, information and telecommunications systems management, and Internet engineering. The college is authorized by the state of Maryland to confer a master of business administration (MBA) degree. The MBA and information and telecommunications systems management programs are fully accredited by the International Assembly for Collegiate Business Education (IACBE, PO Box 25217, Overland Park, KS 66225).

The college is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools (Commission on Higher Education, Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, 215-662-5606). The BS degree program in electrical engineering is also accredited by the Engineering Accreditation Commission of Accreditation Board for Engineering and Technology. The baccalaureate degree programs in computer engineering technology, electronics engineering technology and telecommunications engineering technology are also accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (111 Market Place, Suite 1050, Baltimore, MD 21202, 410-347-7700). Capitol College is approved for veterans' education by the Maryland Higher Education Commission.

### **Equal Opportunities**

Capitol College actively subscribes to a policy of equal educational and employment opportunity and, in accordance with Title IX of the education amendments of 1972, does not discriminate on the basis of race, color, sex, handicap, religion, national or ethnic origin in admission, treatment of students or employment.

### Student Records

The procedures and guidelines adopted by Capitol College regarding student records comply fully with the Family Educational Rights and Privacy Act of 1974. This federal law establishes the rights of students to inspect and review their records, to have the privacy of their educational records maintained and to provide guidelines for the correction of inaccurate or misleading data.

Educational records are defined as records, files, documents, and other materials containing information related to a student that are maintained by Capitol College. Included in this category are records maintained by faculty advisors, Office of Admissions, Office of Financial Aid, Business Office, Office of Career Services, Office of the Student Life and Office of Registration and Records.

Students who wish to gain access to a particular record should contact the office responsible for maintaining that record. Under college policy, records will be produced within a maximum period of three weeks, although in most instances the student will be shown the record upon request.

Certain documents, including financial records of parents and records being withheld for unpaid financial obligations, are not available to students. Students may waive access to their academic, employment and financial aid records.

Students discovering an error in their records should bring it to the attention of the official in charge of the record. Disagreements will be resolved by the appropriate Executive Council member.

Access to individual academic and financial records is denied to parents of students over the age of 18, unless the student signs a consent form. College personnel with a need to know may have access to student records.

The college may disclose directory information (name, address, date and place of birth, telephone number, attendance dates, previous institutions attended, class, major field of study, awards, honors and degrees) without the student's consent.

Students may restrict the release of directory information, except to school officials with legitimate educational interests. To do so, a student must make the request in writing to the Office of Registration and Records. Once filed, this request becomes a permanent part of the student's record until the student instructs the college, in writing, to have the request removed.

Students have the right to receive copies of their Capitol College academic and financial records. Reproduction of academic transcripts costs \$5 per copy. There is no charge for copies of financial aid transcripts.

Alleged failure by the college to comply with the Family Educational Rights and Privacy Act may be directed, in writing, to the Family Educational Rights and Privacy Act office by the student. Questions about this act may be referred to the appropriate Executive Council member.

<b>Tuition and Fees</b>
The following rates are in effect for the 2009-2010 academic year beginning fall 2009 and continuing through summer 2010 Tuition rates are subject to change without notice.

### **Undergraduate Tuition**

Engineering, Computer and Technol Degree Programs Full-time tuition, per semester	ogy
(12-18 credits) \$	9,655
Full-time credits above 18 (per credit)	805
Part-time 1-11 credits (per credit)	619
Audited courses (per credit)	619
Southern Maryland Higher Education	
Center (per credit)	489
Business and Management Degree Programs	
On-campus and Online (per credit)	332

## 3-credit course, plus fees **Graduate Tuition**

Center (per credit)

Independent Study (per credit)

Southern Maryland Higher Education

Online (per credit)	549
Independent study (per credit)	650
Southern Maryland Higher Education	
Center (per credit)	549
Online 3-credit course	1,647

#### Fees

### Admissions

Undergraduate application	25
Graduate application	40
Online applicationfree	
Processing fee for international	
students	150

#### Registration

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Late registration for continuing	
students	40
Drop/add (each form)	10
Deferred payment plan	30
Late payment	25
Returned check	40
Check stop payment request	40

### Undergraduate On-campus Student Services, per semester

Services, per semester	
Resident students	60
Full-time commuter students	
(12+ credits)	36
Part-time commuter students	
(1-11 credits)	10

Information Technology, per semeste	er
Undergraduate Full-time (flat fee, 12+ credits)	300
Undergraduate Part-time (per credit, 1-11 credits)	15
Southern Maryland Higher Education Center (per credit) Graduate (per credit)	15 15
Academic Services	
Transcripts (each)	10
Certificates (each)	25
Replacement of Diploma	50
Graduation (non-refundable)	
AAS degree programs	75
BS, MS, MBA degree programs	150

### Validation exam

Residence Halls

400

332

996

Single room (per semester)	2,709
Double room (per semester)	2,338
Room reservation deposit,	
continuing students	50
Security deposit (refundable)*	200

<sup>\*</sup>See Guide to Residence Life to determine eligibility for refund.

### **Academic Policies**

The information below represents only the changes for 2009-2010. Please consult the 2008-2009 Catalog for additional information.

### **Transcripts**

Student academic records are maintained exclusively by the Office of Registration and Records. These records are considered privileged documents between the student and the college and will be released only upon a signed, written request from the student, except as may be required by law.

Transcripts will be issued when the student submits a signed request form and the student's financial account is current. A \$10 transcript fee is assessed for each issuance. Transcript request forms are available in the Office of Registration and Records and on the Capitol College website.

Capitol College will neither issue a transcript that reflects only part of a student's record nor make copies of transcripts on file from other colleges or universities. Federal guidelines prohibit the faxing or emailing of grades and transcripts.

### **Academic Performance**

#### **Satisfactory Progress**

Undergraduate students receiving federal aid must meet the following satisfactory academic progress (SAP) standards to receive federal, state and institutional financial aid.

A minimum cumulative GPA of 1.7 for undergraduate students who have attempted fewer than 30 semester-credit hours; 2.0 for undergraduate students who have attempted 30 semester-credit hours or more or have completed their second academic year, whichever comes first.

#### Financial Aid Probation

Undergraduate students receiving financial aid who do not meet the satisfactory academic progress standards will be placed on financial aid probation for the following two (2) periods of enrollment. During this probationary period, students

must meet with their academic advisor to develop a plan to improve their academic performance.

Failure to maintain satisfactory progress, as described above, may result in cancellation of financial aid awards, and the student may have to repay any funds already received.

### Graduate Student Financial Aid Satisfactory Academic Progress

Graduate students receiving federal student aid must maintain a 3.0 GPA during each term. Graduate students not meeting this standard will be placed on financial aid probation for the following two (2) periods of enrollment. During this probationary period, students must meet with their academic advisor. Failure to maintain satisfactory progress, as described above, may result in cancellation of financial aid awards, and the student may have to repay any funds already received.

### **Honor Society Chapter**

#### Sigma Delta Beta

The purposes of Sigma Beta Delta are to encourage and recognize scholarship and achievement among students of business, management and administration, and to encourage and promote personal and professional improvement and a life distinguished by honorable service to humankind. Membership in Sigma Beta Delta is the highest national recognition a business student can receive at a college or university with a Sigma Beta Delta chapter. To be eligible for membership, a business student must rank in the upper 20 percent of the junior, senior or master's class and be invited to membership by the faculty officers.

### Financial Aid

The information below represents only the changes for 2009-2010. Please consult the 2008-2009 Catalog for additional information.

## Maximum Time Frame to Complete Course of Study

Students must complete their educational program within a period no longer than 150 percent of the published length of the educational program, as measured by credits attempted and including transfer credits. For example, a student must complete the program after attempting a maximum of 198 credits for a 132 credit hour program. Half-time students must earn 5.5 credits per semester; three-quarter-time students must earn 7.5 credits per semester; full-time students must earn 11 credits per semester.

The chart shows the minimum number of semester-credit hours and years of study students must have achieved to remain in good academic standing to receive financial aid.

Students who do not meet these standards will be given one semester of financial aid probation. Students who fail to meet one or both standards after the probationary period will not be permitted to participate in any financial aid program. Students barred from participation in federal financial aid programs due to unsatisfactory academic progress may regain eligibility if these standards are met at a future time. Students remain on probationary status for two consecutive semesters after regaining financial aid eligibility.

Students may appeal financial aid eligibility termination by submitting a written letter to the Office of Financial Aid. Appeals are reviewed by the College Financial Aid Appeals Committee. Student will be notified in writing of the decision.

#### **Additional Information**

Course withdrawals (W) after the drop/ add period are considered a non-completion of attempted credit hours.

An audit grade is not considered attempted coursework.

Incomplete grades are not included in the GPA calculation nor are they counted as attempted coursework. When the course is completed and a permanent grade is assigned the Office of Financial Aid will reevaluate the student's academic progress.

Students will not receive financial aid for audited courses.

#### **Credit Hours**

Half-time Students												
Year	1	2	3	4	5	6	7	8	9	10	11	12
Credits (5.5 credits per semester)	11	12	33	44	55	66	77	88	99	110	121	132
Three-quarter-	time S	Studen	ıts									
Year	1	2	3	4	5	6	7	8	9	Х	Х	Х
Credits (7.5 credits per semester)	15	28	44	59	73	88	103	117	132	х	Х	х
Full-time Students												
Year	1	2	3	4	5	6	Х	Х	Х	Х	Х	Х
Credits (11 credits per semester)	22	44	66	88	110	132	Х	Х	Х	Х	Х	Х

### Undergraduate Admissions

The information below represents only the changes for 2009-2010. Please consult the 2008-2009 Catalog for additional information.

### **Degree-seeking Students**

### First-Time, Full-Time Freshman

#### **Tuition Deposit**

Upon acceptance, all full-time applicants are required to pay a nonrefundable \$200 tuition deposit or \$200 housing deposit to the college. The tuition deposit is credited to the applicant's first-semester tuition. The housing deposit is held until graduation, or permanent move to off-campus housing.

### **Full-Time Transfer Students**

#### **Application Requirements**

- 1. File a formal application for admission as far in advance of the proposed entrance date as possible. An application for admission can be obtained from the Office of Admissions or online.
- 2. Enclose a \$25 nonrefundable admissions processing fee with the application. (Applications remain on file for one academic year.) The application fee is waived for those students submitting electronic applications through the college website.
- 3. Forward all official transcripts to the Office of Admissions. Applicants who are completing, or who have already earned, an associate or bachelor's degree from a regionally accredited college need only forward college transcripts. Applicants who have less than 24 college credits must forward an official high school transcript denoting graduation date or General Equivalency Diploma (GED) record and college transcripts, if applicable.
- 4. For transfer credit policies, see page 18 of the 2008-2009 Catalog.

### **International Students**

#### **Application Requirements**

- 1. File a formal application for admission as far in advance of the proposed entrance date as possible. An application for admission can be obtained from the Office of Admissions or online.
- 2. Enclose a \$150 nonrefundable admissions processing fee with the application. (Applications remain on file for one academic year.)
- 3. Verify that you meet the academic and financial requirements stated below.

### **Academic Requirements**

Submit certified transcripts (with English translations) of secondary school and/or college records, or examination results when periodic grades are not used for measurement purposes. The college may require that you have your transcripts evaluated by a recognized credential evaluation service.

Applicants should have two years of college preparatory mathematics, such as algebra, geometry and trigonometry.

English proficiency for direct admission into a degree program:

TOEFL paper-based test score of 500 or computer-based test score of 173, or proof of completing a specified level of proficiency at an English language school, or satisfactory completion of English courses at an accredited university or college within the United States.

#### **Financial Requirements**

See page 33 of the 2008-2009 Catalog.

### Undergraduate Program Updates

Capitol College offers undergraduate programs of study for the following degrees.

Course requirements follow for only those programs with changes for 2009-2010. Please consult the 2008-2009 Catalog for the course requirements for the other degree programs (marked with an asterisk), and for course descriptions.

### Bachelor of Science (BS)

- Astronautical Engineering
- Business Administration
- Computer Engineering\*
- Computer Engineering Technology
- Computer Science
- Electrical Engineering
- Electronics Engineering Technology\*
- · Information Assurance
- Management of Information Technology\*
- Software Engineering
- Software and Internet Applications
- Telecommunications Engineering Technology

### Associate in Applied Science (AAS)

- Computer Engineering Technology
- Electronics Engineering Technology\*
- Telecommunications Engineering Technology

### Astronautical Engineering

The astronautical engineering (AE) program is structured to prepare students for engineering careers in the space industry, primarily with NASA Goddard Space Flight Center. Students learn to work as mission specialists with an engineering understanding of the spacecraft, terrestrial systems and space-based platforms required to support a mission; create software applications that can be integrated into space operations to support missions; and design electrical and electronic systems for space mission applications. AE majors study the fundamentals of space operations and technology, flight dynamics maneuvering and propulsions systems and spacecraft design, as well as earth science and NASA missions devoted to the study of the planet. All engineering majors must take courses in humanities and social science to broaden. their understanding of professional and ethical responsibilities and the impact of their engineering solutions in a global context. All students complete a capstone course in which they propose, design, test and deliver a space operations or hardware project that meets specifications.

#### **Course Requirements**

Course

### Bachelor of Science 130/131 Credits

Compute CS-130 CS-230	r Sciences 7 Cre Computer Science Fundamentals I Computer Science Fundamentals I	4
Engineeri	ing 42 Cre	edits
AE-150	Introduction to Space	3
AE-311	Spacecraft Systems	3
AE-351	Orbital Mechanics	3
AE-361	Remote Sensing	3
AE-401	Computational Dynamics	3
AE-454	Spacecraft Dynamics and Control	3
AE-455	Satellite Communications	3
AE-458	Senior Project in Space Science	3
EE-309	Circuit Design and Simulation	3
EE-453	Control I	3
EE-463	Control II	3

Astronautical Engineering electives (3)\*

9

Credits

<sup>\*</sup> See the 2008-2009 Catalog for program descriptions and course requirements.

English C EN-101 EN-102 EN-408	English Communications II		Credits 3 3
FS-100 HU-331 o SS-351 Humanitie	es and Social Sciences Freshman Seminar or HU-332 Arts and Ideas Ethics es electives (2)* iences electives (2)*	19	Credits 1 3 6 6
Mathema CH-120 MA-261 MA-262 MA-263 MA-300 MA-340 MA-360 PH-261 PH-262 PH-263	Calculus I Calculus II Calculus III Mathematical Methods	ns	Credits 3 4 4 4 3 3 3 4 4 4 4 4
Technical EE-159 EL-200 EL-204 EL-250 EL-261	Courses Circuit Theory Electronic Devices and Circu Digital Electronics Advanced Analog Circuits Introduction to Communicati	uits	Credits 4 4 3 4
	0'		_

\*See appropriate department for approved list.

Circuits and Systems

All bachelor of science degrees require a minimum of 39 credits at the 300-level or above. For descriptions of required courses, see the 2008-2009 Catalog.

### Business Administration

The business administration (BA) curriculum provides students with the knowledge necessary to integrate business, analytical and decision-making skills into a culturally, politically, socially and demographically diverse environment. Graduates will bring to the job market the ability to effectively apply the acquired skills and knowledge (theory, tools and models) to everyday work situations of current or future employers. The goals of the program are to give students an understanding of how private and public sector organizations function effectively and efficiently. Students will gain a clear picture of how the functional business areas work together to achieve organizational success in a global environment. Course content builds a solid business. and management foundation to include marketing, accounting, finance, information technology and human resource management. The combined required and elective courses provide students with a breadth of skills important in today's technology-driven business climate.

#### **Course Requirements**

Bachelor	of Science	120/121 Credits
Course		Credits
Business A	dministration	33 Credits
BUS-270 F	inancial Accountin	ng I 3
BUS-271 F	inancial Accountin	ng II 3
BUS-280 M	1acroeconomics	3
BUS-281 M	1icroeconomics	3
BUS-200 B	Business Communi	ications 3
BUS-376 M	larketing Principle:	s 3
	egal Environment	
BUS-384 P	roduction and Ope	erations
N	1anagement	3
BUS-386 C	Organizational Theo	ory and Behavior 3
BUS-410 S	trategic Managem	ent 3
BUS-458 S	Senior Project	3
Business F	undamentals	18 Credits
BUS-173 B	Business Managem	nent 3
BUS-275 F	Resource Managen	ment 3
BUS-283 M	lanagerial Accoun	ting 3
BUS-372 F	inancial Managem	nent 3
BUS-379 Ir	ntroduction to Lead	dership 3
BUS-454 Ir	nternational Busine	ess 3

English C EN-101 EN-102 EN-408	3	9 Credits 3 3 3 Il
General E	Electives electives (5)*	15 Credits 15
FS-100 HU-331 o SS-351 Humanitio	es and Social Sciences Freshman Seminar or HU-332 Arts and Ideas Ethics es/History/Philosophy electivitiences electives (2)*	19 Credits 1 3 es (2)* 6 6
CT-101 BUS-250 BUS-301	on Technology Computer Applications Database for Managers Project Management Information Systems for Ma Human-Computer Interactio	•
BUS-400	tics and Sciences Research Methods Business Math Introduction to Statistics	12 Credits 3 3 3

\*Any course may be taken to satisfy the general elective requirement.

Science elective

All bachelor of science degrees require a minimum of 39 credits at the 300-level or above. For descriptions of required courses, see the 2008-2009 Catalog.

## Computer Engineering Technology

The Computer Engineering Technology (CET) program is structured to teach students to work at the interface between hardware and software linking digital technology to computer applications. Students are trained to work in a wide range of technical jobs in the information technology industry. The main objective of the program is to produce technologists who support industry in areas ranging from telecommunications and manufacturing to computer programming. CET majors study software design and testing, operating systems programming languages, digital systems, computer organization and architecture, micro-controller systems, and the latest programmable chip technology. All bachelor of science students complete a capstone course in which they propose, design, build, test and deliver a computer-based system.

### Associate in Applied Science Degree

The AAS degree program is designed to prepare graduates to work in technical positions of the computer technology industry. The program also provides further education for people who seek to broaden their base of knowledge and update their skills.

### **Bachelor of Science Degree**

The BS degree program is designed to educate students for computer technology fields by providing a comprehensive understanding of computers. Academic instruction is augmented by requiring students to design and write programs, and through carefully planned laboratory exercises during which students build, interconnect, test, service and operate computer devices and systems.

### **Course Requirements**

EL-204 Digital Electronics

EL-262 Microprocessors/Microassembly

TC-110 Introduction to Telecommunications

IAE-201 Intro to Information Assurance

### Associate in Applied Science 64/65 Credits

Course	Cred	lits
English C EN-101 EN-102	ommunications 6 Cred English Communications I English Communications II	dits 3 3
FS-100 History/H	es and Social Sciences 7 Cred Freshman Seminar umanities/Philosophy elective (1)* iences elective (1)*	dits 1 3 3
Mathema MA-114 MA-124 MA-128 MA-261 PH-201 PH-202	tics and Sciences Algebra and Trigonometry Discrete Mathematics Introduction to Statistics Calculus I General Physics I General Physics II	dits 4 3 4 3 4 3
Technical CS-130 CS-230 CT-115 CT-152 EL-100	Courses 32 Cree Computer Science Fundamentals I Computer Science Fundamentals II Introduction to Programming Introduction to Unix Introductory DC/AC Circuits	dits 4 3 3 3
EL-200	Electronic Devices and Circuits	4

### Bachelor of Science 128/129 Credits

All requirements for the associate in applied science degree, plus the following:

Science C	legree, plus the following.		
Course		Cred	its
English C EN-408	Communications  Writing Seminar in	3 Cred	its
	Technical Research		3
	es and Social Sciences	12 Cred	
HU-331 o SS-351	or HU-332 Arts and Ideas Ethics		3
	umanities/Philosophy electiv	e (1)*	3
•	cience elective (1)*	- ( )	3
Mathema	tics and Sciences	10 Cred	its
	Chemistry		3
	Calculus II		4
MA-300	Mathematical Methods		3
Technical	Courses	39 Cred	its
CS-220	Database Management		3
CS-418	Operating Systems		3
CT-240	Network Routers and Switch	hes	3
EE-304	Digital Design I		3
EE-354	3		3
EE-362	· · · · · · · · · · · · · · · · · · ·	ign	3
EL-452			3
SE-458	· · · · · · · · · · · · · · · · · ·		3
TC-309	9		3
	elective (1)		3 3 3
	elective (1) (2xx or above)		
Technical	electives (2) (3xx or above)		6

<sup>\*</sup> See appropriate department for approved list.

All bachelor of science degrees require a minimum of 39 credits at the 300-level or above. For descriptions of required courses, see the 2008-2009 Catalog.

3

3

3

### **Computer Science**

The computer science (CS) program is structured to teach students to design and program computers and computer-based systems to meet the needs of all areas of society. Students are trained to work in a wide variety of careers in the computer field, from software programming to system design to network security and administration. The main objective of the program is to encourage critical thinking and thoughtful ethical behavior and to foster professional programming practices and promote sound planning and design techniques. CS majors study programming languages, computational science, algorithms and complexity, the architecture and organization of computers, software engineering, humancomputer interaction, intelligent systems, information management, and the social and professional issues associated with the practice of computer science. All students complete a capstone course in which they propose, design, build, test and deliver a computer-based system.

### **Course Requirements**

#### Bachelor of Science 127/128 Credits

Course		Credits
English (	Communications	9 Credits
EN-101	English Communications I	3
EN-102	English Communications II	3
EN-408	Writing Seminar in	
	Technical Research	3

Compute	ers and Engineering Science 46 Cred	lits
CS-130	Computer Science Fundamentals I	4
CS-220	Database Management	3
CS-225	Intermediate Java Programming	3
CS-230	Computer Science Fundamentals II	3
CS-310	Computer Algorithms	3
CS-316	Intelligent Systems	3
CS-320	Database Administration	3
CS-351	Assembly Language	3
CS-405	Introduction to Software Design	
	with UML	3
CS-407	Database Systems Implementation	3
CS-418	Operating Systems	3
CT-115	Introduction to Programming*	3
CT-152	Introduction to Unix	3
SE-321	Human Computer Interaction	3
SE-458	Senior Proiect	3

Humanities and Social Sciences	22 Credits	
FS-100 Freshman Seminar	1	
HU-331 or HU-332 Arts and Ideas	3	
SS-272 Group Dynamics	3	
SS-351 Ethics	3	
History/Humanities/Philosophy elective (2)***		
Social Science elective (1)***		
Social Science/Management elective (1)***		

12 Credits

12

3

3

Computer Science Electives

Computer Science electives (4)\*\*

Mathema	tics and Sciences	30 Credits
CH-120	Chemistry	3
EL-100	Introductory DC/AC Circuits	3
MA-114	Algebra and Trigonometry	4
MA-124	Discrete Mathematics	3
MA-128	Introduction to Statistics	3
MA-261	Calculus I	4
MA-262	Calculus II	4
PH-201	General Physics I	3
PH-202	General Physics II	3
Technical	Courses	9 Credits

TC-110 Introduction to Telecommunications 3

\* Students who validate CT-115 or who place into Calculus I may replace this course with any

technical course not already required for the CS

EL-262 Microprocessors/Microassembly

EL-204 Digital Electronics

degree.

\*\*Students who do not test into Calculus I may use MA-114 here. CT-240 is recommended for students interested in additional networking courses. CT-102 and CS-356 are recommended for students interested in constructing websites with dynamic webpages. CS-432 is recommended for students interested in taking CS-513 in the MSCS program.

\*\*\*See appropriate department for approved list.

All bachelor of science degrees require a minimum of 39 credits at the 300-level or above. For descriptions of required courses, see the 2008-2009 Catalog.

### **Electrical Engineering**

The electrical engineering (EE) program is structured to teach students a blend of theory and practice directed at engineering design, rather than research. The main objective of the program is to produce practical design engineers. Students start in the program with basic circuit theory with laboratory projects that provide them a practical background. The students are then taught to use increasingly sophisticated design and testing techniques to conduct experiments, and interpret data. As students progress through the program they are taught more theoretical methods of circuit modeling and computer-aided circuit simulation tools that enable them to design, build, test and analyze sophisticated circuits and systems. There are elective courses that allow for specialization in communications systems, micro-controller system design, signals and systems, digital signal processing, microwave engineering, VHDL and telecommunications. All engineering majors must take courses in humanities and social science to broaden their understanding of professional and ethical responsibilities and the impact of their engineering solutions in a global context. All students complete a capstone course in which they propose, design, build, test, analyze and deliver a working prototype circuit to meet engineering standards and realistic constraints.

#### **Course Requirements**

Bachelor of Science 135/1	136 Credits
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Course		Credits
Electrical	Engineering 48	Credits
EE-304	Digital Design I	3
EE-309	Circuit Design and Simulation	3
EE-359	High Frequency Circuit Design	3
EE-362	Microcontroller System Design	3
EE-406	Signals and Systems	3
EE-409	Network Analysis and Synthesi	s 3
EE-419	Electrostatics	3

	Digital Signal Processing Senior Project Electromagnetic Field Theory Communications Theory Control II relective (1)*	3 3 3 3 3 3 6
English C EN-101 EN-102 EN-408	English Communications II Writing Seminar in	s 3 3
FS-100 HU-331 o SS-351 Humanitie	r HU-332 Arts and Ideas Ethics es electives (2)*	s 1 3 6 6
Mathemat	tics and Sciences 39 Credit	s
CH-120	Chemistry	3
MA-261	Calculus I	4
MA-262	Calculus II	4
MA-263	Calculus III	4
MA-300	Mathematical Methods	3
MA-340	Ordinary Differential Equations	3
MA-345	Probability and Statistics	
	for Engineers	3
MA-360		3
PH-261	Engineering Physics I	4
PH-262	Engineering Physics II	4
PH-263		4
Technical	Courses 21 Credit	s
EE-159	Circuit Theory	4
EL-200		4
EL-204	9	3
EL-250	, lavarious , iliaiog Girounio	4
EL-261	Introduction to Communications	
	•	3
EL-262	Microprocessors and Microassembly	3

\*See appropriate department for approved list.

All bachelor of science degrees require a minimum of 39 credits at the 300-level or above. For descriptions of required courses, see the 2008-2009 Catalog.

### **Information** Assurance

The Capitol College Bachelor of Science in Information Assurance (BSIA) Program is designed to meet current and anticipated needs for highly-skilled information assurance professionals, particularly as it relates to securing information and defending the information systems that store it. As society becomes increasingly reliant on information in electronic form, identifying and addressing vulnerabilities where information resides is vital to any public, private or government organization. The BSIA degree develops and builds upon students' mastery in computer networking and programming, so that they become effective technologists for managing information security risk. In addition, BSIA students complete courses by the end of their sophomore year that prepare them to pass industry certification exams to include A+, Network+, and Security+. By attaining a combination of the BSIA degree and one or more of the industry certifications, graduates of Capitol College will not only possess the professional knowledge required for a successful career in information assurance, but also have the credentials to prove it.

### **Course Requirements**

Bachelor of Science

Course		Crea	its
Programm	ming and Computer	25 Cred	lits
CS-130	Computer Science Funda	mentals I	4
CS-220	Database Management		3
CS-230	Computer Science Funda	mentals II	3
CS-320	Database Administration		3
CT-115	Introduction to Programmi	ing	3
CT-152	Introduction to Unix		3
NT-100	Computer Architecture & C	Construction	n 3
SE-458	Senior Project		3
Information Assurance Courses 24 Credit		lits	

IAE-201 Introduction to Information Assurance Concepts

IAE-301 Comprehensive Computer and Network Security I\*

IAE-302 Comprehensive Computer and Network Security II\*

127/130 Credits

	Secure System Administ		3
IAE-325	Operation Secure Data Communica Cryptography*	tions and	3
IAE-402 I	Introduction to Incident H	landling and	
IAE-406 [	Malicious Code* Digital Forensics* Design and Testing*		3 3 3
MA-114 A MA-124 E MA-128 I	cs and Sciences Algebra and Trigonometr Discrete Mathematics Introduction to Statistics Calculus I ective (1)**		s 4 3 4 3
CT-240 I	unications and Networkir Internetworking with Rou	ters	
TC-110 I	and Switches Introduction to Telecomm Computer Networking	unications	3 3 3
	ent Principles of Managemer Project Management		3 3
EN-101 E EN-102 E EN-408 \	ommunications English Communications English Communications Writing Seminar in Technical Research	II	3 3
FS-100 F HU-331 or SS-351 E History/Hu	s and Social Sciences Freshman Seminar HU-332 Arts and Ideas Ethics manities/Philosophy electorices electives (2)**	ctives (2)**	s 1 3 6 6
General El	ectives	19-21 Credit	s
* Offered o ** See app	online only. propriate department for a	approved list.	
All bachelor of science degrees require a minimum of 39 credits at the 300-level or above. For descriptions of required courses, see the 2008-2009 Catalog.			

3

3

### **Software Engineering**

The software engineering (SE) program is structured to teach students to design and program computers and computerbased systems to meet the needs of all areas of society. Students are trained to analyze and determine the needs of a system and apply engineering principles to create software and hardware solutions. The main objective of the program is to produce practical design engineers. SE majors study modern programming languages and applications, algorithm development, and software design and testing in the software component, computer organization and architecture, micro-controller system design and the latest programmable chip technology in the hardware portion, and modern approaches to knowledge acquisition using UML in both individual and team environments. All engineering majors must take courses in humanities and social science to broaden their understanding of professional and ethical responsibilities and the impact of their engineering solutions in a global context. All students complete a capstone course in which they propose, design, build, test and deliver a working software application.

### **Course Requirements**

#### Bachelor of Science 131/132 Credits

Course	Crea	lits
Compute	ers and Software 31 Cred	lits
CS-130	Computer Science Fundamentals I	4
CS-220	Database Management	3
CS-230	Computer Science Fundamentals II	3
CS-310	Computer Algorithms	3
CS-418	Operating Systems	3
CS-432	Computer Graphics	3
CT-152	Introduction to Unix	3
CS-225	Intermediate Java Programming	3
IAE 315	Secure System Administration	3
SE-458	Senior Design Project	3

Engineeri	ing	27 Credits
EE-304	Digital Design I	3
EE-362	Microcontroller System Desi	ign 3
EE-364	Computer Architecture	3
SE-301	Software Engineering	3
SE-321	Human Computer Interactio	n 3
SE-351	Software Testing	3
Software	or Engineering electives (3)*	9
English C	communications	9 Credits
EN-101	English Communications I	3
EN-102	English Communications II	3
EN-408	Writing Seminar in	
	Technical Research	3
General E	Electives	6 Credits
General e	electives (2)**	6
Humanitie	es and Social Sciences	19 Credits
FS-100	Freshman Seminar	1
HU-331 o	r HU-332 Arts and Ideas	3
SS-351	Ethics	3
	es electives (2)*	6
Social Sc	iences electives (2)*	6
Mathema	tics and Sciences	34 Credits
CH-120	Chemistry	3
MA-124	Discrete Mathematics	3
MA-261	Calculus I	4
MA-262		4
MA-300	Mathematical Methods	3
MA-345	Probability and Statistics	
	for Engineers	3
PH-261	Engineering Physics I	4
PH-262	Engineering Physics II	4
Physics N	Math or Science elective (2)*	6
Technical		6 Credits
EL-204	Digital Electronics	3

- EL-262 Microprocessors and Microassembly 3
- \* See appropriate department for approved list.
- \*\* Any course may be taken to satisfy the general elective requirement.

All bachelor of science degrees require a minimum of 39 credits at the 300-level or above. For descriptions of required courses, see the 2008-2009 Catalog.

### Software and **Internet Applications**

The software and Internet applications (SIA) program is structured to prepare students to be Internet specialists. Students are trained in computer and web programming as well as networking and server administration so that they understand and can effectively respond to the entire spectrum of Internet issues. The main objective of the program is to produce well-rounded Internet experts with a strong foundation in computer technology and networking. SIA majors study web pages, websites, computer graphics, Unix/Linux, website security, network security, firewalls, XML, CGI programming, database management, C++, and Java with options for specialization in areas such as data communications and networking, computer programming, digital electronics, management, Cisco or Microsoft certifications, and/or liberal studies. All students complete a capstone course in which they propose, design, test and deliver a web-based project.

### **Course Requirements**

#### **Bachelor of Science** 124/125 Credits

Course	Crea	lits
Compute	rs 46 Cred	lits
CS-130	Computer Science Fundamentals I	4
CS-220	Database Management	3
CS-230	Computer Science Fundamentals II	3
CS-225	Intermediate Java Programming	3
CS-321	Computer Human Interaction	3
CS-356	Dynamic Web Page Development	3
CT-102	Introduction to Internet Applications	3
CT-115	Introduction to Programming*	3
CT-152	Introduction to Unix	3
CT-201	Multimedia Applications	3
CT-376	Javascript	3
CT-406	Web Programming Languages	3
IAE-201	Intro to Information Assurance	3
IAE-301	Comprehensive Network Security I	3
SE-458	Senior Design Project	3

EN-101	English Communications I	3
EN-102	English Communications II	3
EN-408	Writing Seminar in	
	Technical Research	3
General Electives		15 Credits
General electives (5)**		15

9 Credits

12

**English Communications** 

Humanities and Social Sciences 19 Cr	redits
FS-100 Freshman Seminar in Computers	1
HU-331 or HU-332 Arts and Ideas	3
SS-351 Ethics	3
History/Humanities/Philosophy electives (2)**	
Social Sciences/Management electives (2)**	

Mathema	tics and Sciences	12 Credits
MA-110	College Math with Business	
	Applications***	3
MA-124	Discrete Mathematics	3
MA-128	Introduction to Statistics	3
Science (	elective (1)**	3
Option		12 Credits

Technical/Science/Business Electives 12 Credits Technical/Science/Business electives (4) 12

Choose four related courses (4)\*\*\*\*

(300-level or above)\*\*

\* Students who validate CT-115 or place into Calculus I may replace this course with any technical course not already required for the SIA degree.

\*\* See appropriate department for approved list. \*\*\* Students planning to go on to a master's degree program should take MA-114 instead of MA-110. They should also take MA-261, MA-262 and MA-340 as electives.

\*\*\*\* The Option must consist of four related courses: four telecommunications, four management, four math courses, etc. Students should consult with an advisor before selecting courses for the Option. Poorly selected options may make it difficult to fill the twelve credits of Technical/Science/Business electives with 300-level or above courses.

All bachelor of science degrees require a minimum of 39 credits at the 300-level or above. For descriptions of required courses, see the 2008-2009 Catalog.

### Telecommunications Engineering Technology

The telecommunications engineering technology (TET) program is structured to teach students to design, build, maintain, troubleshoot and expand networks of all types. Students are trained to work in a wide range of telecommunications and computer networking jobs on both the technical and the design sides. The main objective of the program is to produce technologists who support industry in areas ranging from data communications and networking to routers and switches to network modeling and design. TET majors study digital electronics, noise and shielding, fiber-optic communications, microprocessors and micro assembly, and may specialize in either data communications and networking or RF and satellite communications. All bachelor of science students complete a capstone course in which they propose, design, build, test and deliver a working telecommunications project.

### Associate in Applied Science Degree

The AAS degree program is designed to teach students about the design and construction of networks by giving them a broad foundational background in the field of telecommunications. Students at the AAS level will be able to construct and test telecommunications circuits and networks using many different types of test equipment. Some theoretical courses are included to prepare students who are continuing with the bachelor's degree.

### **Bachelor of Science Degree**

The BS degree program is designed to build on the AAS program with more advanced studies in simulation, analysis and modeling of communications circuits and networks. Courses in optical communications, data communications and networking and Internet networks provide students with the necessary background to do network design and administration work and to pursue continued studies in engineering, engineering technology or information technology.

### **Course Requirements**

Associa Credits	ate in Applied Science 64	4/65
Course	Cre	edits
English 0 EN-101 EN-102	Communications 6 Cre English Communications I English Communications II	edits 3 3
FS-100 Humaniti	es and Social Sciences 7 Cre Freshman Seminar es elective (1)* ciences or MIT elective (1)*	edits 1 3 3
Mathema MA-114 MA-128 MA-261 PH-201 PH-202	Atics and Sciences 17 Creatics and Sciences 17 Creatics and Trigonometry Introduction to Statistics Calculus I General Physics I General Physics II	edits 4 3 4 3 3
Technica CS-130 CT-115 CT-152 CT-240	Courses 35 Cre Computer Science Fundamentals Introduction to Programming** Introduction to Unix Internetworking with Routers	edits 4 3 3
EL-100 EL-200 EL-204 IAE-201	and Switches Introductory DC/AC Circuits Electronic Devices and Circuits Digital Electronics Introduction to Information	3 3 4 3
TC-110 NT-100	Assurance Concepts Introduction to Telecommunications Computer Architecture and Construction	3 s 3
	Construction	-

<sup>\*</sup> See appropriate department for approved list.

3

Computer Networking

NT-150

<sup>\*\*</sup> Students with some computer background should take CS-130.

Bachelor of Science 128/129 Co All requirements for the associate in applie ence degree, plus the following:		Option I or II Students must select one of the following options. Consult an academic advisor for guidance.
Course	Credits	Option I
English Communications 3 0 EN-408 Writing Seminar in Technical Research	Credits 3	Data Communications and Networking 12 Credits IAE-301 Computer/Ntwk Sec I 3 IAE-302 Computer/Ntwk Sec II 3 IAE-315 Secure Systems Admin 3
General Electives 6 0	Credits	300/400 level technical elective 3
General electives (2)*	6	Option II
Humanities/Social Sciences 12 (	Credits	RF and Satellite 12 Credits
HU-331 or HU-332 Arts and Ideas	3	AE-455 Satellite Communications 3
SS-351 Ethics	3	EE-301 Advanced Communications Sys 3
Humanities elective (1)**	3	MA-360 Laplace and Fourier Analysis 3
Social Science elective (1)**	3	MA-345 Probability and Statistics for Engineers 3
Mathematics and Sciences 10 0	Credits	Engineers
CH-120 Chemistry	3	Advanced Option (online) 12 credits
MA-262 Calculus II	4	IAE-301 Computer/Ntwk Sec I 3
MA-340 Ordinary Differential Equations	3	IAE-302 Computer/Ntwk Sec II 3
mir o ro oraman y zmoroman zquanono	·	IAE-670 Network Systems Sec Concepts 3
Technical Courses 21 0	Credits	IAE-611 Wireless Security 3
EL-261 Introduction to Communications		
Circuits and Systems	3	* Any course may be taken to satisfy the general
EL-307 Noise and Shielding	3	elective requirement.
OP-301 Fiber Optic Communications	3	** See appropriate department for approved list.
TC-309 Network Simulation	3	
TC-359 Network Modeling and Design	3	All bachelor of science degrees require
TC-458 Senior Design Project	3	a minimum of 39 credits at the 300-level or
Technical elective (1)**	3	above. For descriptions of required courses, see the 2008-2009 Catalog.

### Undergraduate Certificate Updates

The undergraduate certificates listed below have been updated for 2009-10. Requirements for undergraduate certificates in Computer and Network Security, Financial Management, Object-Oriented Programming, and Software Engineering remain the same as published in the 2008-2009 Catalog, which also contains course descriptions.

## Operations Management (12 credits)

This lower-level certificate provides students with a foundation in business and management with a concentrated emphasis on productivity in a world economy. Students learn the fundamentals of business and management in a project-oriented environment with an emphasis on the needs and concerns of the consumer. Coursework allows students a choice to explore the financial aspects of business management with principles of accounting or the legal policies and regulations that effect business with legal environment of business. The production and operations management course stresses the decisions that managers make in increasing productivity by considering the strategies, techniques and problems in meeting customer needs, in forecasting and scheduling, and in quality management. An alternate course in marketing principles emphasizes the relationships among consumers, business and government about product, promotion, pricing and distribution strategies.

#### Required Courses (choose any four)

BUS-173	Business Fundamentals
BUS-270	Financial Accounting I
BUS-376	Marketing Principles
BUS-279	Introduction to Leadership
BUS-378	Legal Environment of Business
BUS-384	Production and Operations
	Management

## Personnel Management (12 credits)

This upper-level certificate provides students with a foundation in the development of employer-employee relations in both the private and public sectors in order to facilitate organization productivity. Students learn the fundamentals of business and management in a project-oriented environment with an emphasis on human business interaction. Courses in the principles of management and personnel management focus on the aspects of supervision and human resource management, with concentration on administration, recruiting and selection, evaluation and training. The organizational theory course combines behavioral sciences with management theory to reinforce concepts of organizational development, organizational structure and processes, and organizational conflict and change. An alternate course in group dynamics focuses on organizational climate and culture and their relationship to and impact on individuals and groups in hightech organizations.

#### Required Courses (choose any four)

BUS-173	Business Fundamentals	3
BUS-279	Introduction to Leadership	3
BUS-375	Human Resource Management	3
BUS-386	Organizational Theory and Behavior	3
SS-272	Group Dynamics	3

### Programming and Data Management (13 credits)

This lower-level certificate provides a good understanding of how programmers store and manage computer data. Students learn the fundamental aspects of the storage and management of computer data. Courses in C++ and Java introduce the student to the object-oriented paradigm and the underlying principles of the structures and methods associated with data management. In addition, Oracle is used in the database management course, which introduces students to relational databases and the techniques for analyzing and designing

database solutions. Finally, a course in advanced data structures teaches students the theory and underlying techniques used to store, search, sort and access computer data.

### Required Courses

CS-130	Computer Science Fundamentals I	4
CS-220	Database Management	3
CS-310	Computer Algorithms	3
CS-225	Intermediate Java Programming	3

### Space Missions and Operations Specialist (12 credits)

This upper-level certificate provides students with a general overview of satellites, including simple physics of satellite orbits and the history of NASA and scientific mission operations. Students will learn satellite design with emphasis on power management, heating and cooling considerations, telemetry and communications and control systems. Coursework includes the study of orbital mechanics and the physics of the instruments used to monitor and analyze the earth and atmosphere. Prerequisites for the certificate include an understanding of math through differential equations with basic engineering physics.

#### Required Courses

AE-150	Introduction to Space
AE-311	Spacecraft Systems
AE-351	Orbital Mechanics
AE-361	Remote Sensing

## Web Programming (12 credits)

This lower-level certificate provides students the foundation to write programs that support transactions conducted over the Internet. Students learn about the web and the basic tools used for webpage construction, including HTML, DHTML, scripting, CSS and an overview of XML. The database management course provides students with an understanding of relational databases, how they are designed, how data is stored in them, and how that data

can be accessed. The final two courses, Intermediate Java Programming and Web/CGI Programming Using Perl, provide students with the programming techniques and tools needed to create truly dynamic webpages.

#### Required Courses

CT-102	Introduction to Internet Applications	3
CS-225	Intermediate Java Programming	3
CS-220	Database Management	3
CS-356	Dynamic Web Page Development	3

Prerequisite: CT-115, CS-130 or equivalent.

## Website Development (12 credits)

This upper-level certificate is designed for students interested in building websites. Students learn a variety of tools and applications such as HTML, Java Script, ASP, PHP, Microsoft FrontPage and Macromedia Director used to build webpages and add multimedia content to them. The website construction course deals with website and browser requirements, platform selection issues, web server functions, client and server side applications, cookies and other topics. In the website administration course, students learn concepts in the use of software to monitor and optimize website operations, alternatives to CGI such as ASP and website security.

#### Required Courses

3

3

3

CT-102	Introduction to Internet Applications	3
CT-201	Multimedia Applications	3
CT-406	Web Programming Languages	3
IAE-315	Secure System Administration	3

Prerequisite: CT-115, CS-130 or equivalent.

### Post-Baccalaureate Certificate Updates

The post-baccalaureate certificates listed below have been introduced or updated for 2009-10. Requirements for post-baccalaureate certificates in Client/ Server and Wireless Devices, Component Technologies and Online Collaboration, and Information Technology remain the same as published in the 2008-2009 Catalog, which also contains course descriptions.

### Information Assurance Administration

### Required Courses

IAE-671	Legal Aspects of Computer Security
	& Information Privacy
IAE-674	Security Risk Management
IAE-675	Computer Forensics and Incident
	Handling
IAE-680	Perimeter Protection

#### **Network Protection**

### Required Courses

IAE-621	Applied Wireless Network Security
IAE-677	Malicious Software
IAE-679	Vulnerability Mitigation
IAE-682	Internal Protection

### **Security Management**

#### Required Courses

IAE-611	Wireless Security
IAE-670	Network Systems Security Concepts
IAE-673	Secure Information Transfer and
	Storage
IAE-684	Complementary Security

# Critical Infrastructures and Cyber Protection Center

Capitol College established the Critical Infrastructures and Cyber Protection Center (CICPC) to address the technical and managerial needs of the information assurance (IA) workforce, particularly working professionals who do not desire or have the resources to participate in formal degreebearing academic programs. CICPC programs provide the IA professional, or those seeking to enter the IA workforce, technical skills training, focused professional development, certification(s) in various specialty areas, and examination review opportunities for individuals and organizations seeking industry recognized security certifications. Participants earn continuing professional education units (CPEs) along with a certificate or document of completion reflecting their participation. The CICPC program inventory also includes a suite of offerings that satisfy requirements of Department of Defense Directive 8570.1.

Programs are usually delivered on-line with real-time lectures recorded for later playback, enabling program participants unable to attend in real-time the ability to review the course material as their schedule permits. Customized programs can be arranged and delivered on-site or online, including delivery in alternative time zones. CICPC program offerings include: Certification and Accreditation (CAP) programs tailored for government, DoD, or the commercial sector; FISMA compliance; federal CNSS standards (CNSSI 4012 & NSTISSI 4015); and industry certification preparation (CISSP, SSCP, Security+, IdM).

All CICPC programs are taught by subject matter experts from government and industry, most of whom also serve as lead faculty in our master of science in information assurance degree program.

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### Calendar

### Fall Semester 2009

### **Undergraduate Classes**

Semester-long Classes

Ū	Registration for part-time students	Oct. 28	Last day to drop a course with
Aug. 19-21	Orientation/registration and residence hall check-in for new students		a W  Registration for spring semester begins for continuing students
Aug. 21	Final day of registration	Nov. 25	Classes canceled – college
	December graduates notify Office		closes at 5 p.m.
Aug. 22	of Registration and Records Residence hall check-in for	Nov. 26-29	Thanksgiving recess – college closed
Aug. 22	returning students	Nov. 30	Classes resume
Aug. 24	Classes begin	Dec. 11	Classes end
	Last day for 100% refund		Electronics and physics/chemistry
	First tuition installment due		labs close
	Library opens		Tutoring Resource Center closes
	Cooperative education work		All library materials are due
Aug. 31	period begins Electronics, physics/chemistry		Last day for cooperative education work
Aug. 51	and computer labs open		Last day to Withdraw
	Tutoring Resource Center opens	Dec. 14-18	3 Final examinations
Sept. 7	Labor Day - college closed	Dec. 18	Library, computer labs close
Sept. 8	Last day for 75% refund	Dec. 18	Residence halls close at 5 p.m.
	Last day to add or audit a course	Dec. 23	College closes at 5 p.m. for recess
	Last day to drop a course without a W	Dec. 24-Ja	an 3
Sept. 14	Last day for 50% refund		Winter recess – college closed
Sept. 14 Sept. 21	Last day for 25% refund		
Осрі. 2 і	Second tuition installment due		for undergraduate terms, not n a 16 week schedule, are available
Sept. 21-25	5 Financial Aid Disbursement Week/ Pell Census	online.	i a 10 week scriedule, are avallable
Sept. 22	Career Day – no classes		
	Colloquium		
Oct. 19	Final Tuition installment due		

### **Graduate Classes**

Semester-long	Classes
---------------	---------

	•		
Aug. 28	Final day of registration		Last day to drop a course without
Aug. 31	Classes begin		a W
	Last day for 100% refund	Sept. 14	Last day for 50% refund
	First 50% tuition installment due	Sept. 21	Last day for 25% refund
Sept. 7	Labor Day – college closed (Online classes will meet		Last day to drop a course with a W
	asynchronously.)	Sept. 28	Final 50% tuition installment due
Sept. 14	Last day for 75% refund	Oct. 16	Last day to Withdraw
	Last day to add or audit a course	Oct. 23	Classes end
	Last day to drop a course without a W		
Sept. 21	Last day for 50% refund	Fall – Tern	n II
Sept. 28	Last day for 25% refund	Oct. 23	Final day of registration
•	Final 50% tuition installment due	Oct. 26	Classes begin
Nov. 4	Registration for spring semester		Last day for 100% refund
	begins		First 50% tuition installment due
Nov. 9	Last day to drop a course with	Nov. 2	Last day for 75% refund
	a W		Last day to add or audit a course
Nov. 25	College closes at 5 p.m. (Online classes will meet		Last day to drop a course without a W
	asynchronously.)	Nov. 4	Registration for spring semester
Nov. 26-29	Thanksgiving – college closed		begins
	(Online classes will meet	Nov. 9	Last day for 50% refund
D 44	asynchronously.)	Nov. 16	Last day for 25% refund
Dec. 11	Last day to Withdraw		Last day to drop a course with
Dec. 18	Classes end		a W
Dec. 23	College closes at 5 p.m. for	Nov. 23	Final 50% tuition installment due
Dec 04	recess	Nov. 25	College closes at 5 p.m.
Dec. 24 – J	Winter recess – college closed		(Online classes will meet asynchronously.)
		Nov. 26-29	Thanksgiving – college closed
Fall – Tern	n I		(Online classes will meet asynchronously.)
Aug. 28	Final day of registration	Dec. 11	Last day to Withdraw
Aug. 31	Classes begin	Dec. 18	Classes end
	Last day for 100% refund	Dec. 23	College closes at 5 p.m. for recess
	First 50% tuition installment due	Dec. 24-Ja	n. 3
Sept. 7	Labor Day – college closed (Online classes will meet asynchronously.)		Winter recess – college closed
Sept. 8	Last day for 75% refund		
•	Last day to add or audit a course		

### **Spring Semester 2010**

### **Undergraduate Classes**

### Semester-long Classes

Jan. 7	Residence hall check-in for new students	Mar. 15-19	Spring recess (service offices open)
Jan. 8	Final day of registration	Mar. 22	Classes resume
	Graduation applications due for Class of 2009	Mar. 23	Last day to drop a course with a W
	Orientation/registration for new students		Registration for summer session begins
Jan. 9	Residence hall check-in for	Mar. 25	Honors Convocation
	returning students	Mar. 29	Registration for summer semester
Jan. 11	Classes begin		begins for continuing students
	Last day for 100% refund First tuition installment due	Apr. 6	Pre-registration for fall semester begins for continuing students
	Library opens	May 3	Classes end
	Co-op work period begins		Last day to Withdraw
Jan. 18	Martin Luther King Jr. Day – college closed		Electronics and physics/chemistry labs close
Jan. 19	Electronics, physics/chemistry and computer labs open		Tutoring Resource Center closes All library materials are due
	Tutoring Resource Center opens		Last day for cooperative education
Jan. 25	Last day for 75% refund		work
Jan. 26	Last day to add or audit a course	May 6 -12	Final examinations
	Last day to drop a course without	May 12	Library, computer labs close
	a W	May 12	Residence halls close at 5 p.m.
Feb. 1	Last day for 50% refund	May 15	Commencement
Feb. 8	Last day for 25% refund		
	Second tuition installment due	Calendars	for undergraduate terms, not
Feb. 8-12	Financial Aid Disbursement Week/ Pell Census	running on online.	a 16 week schedule, are available
Mar. 8	Final Tuition installment due		

### **Graduate Classes**

Semester-long Classes		Spring – Term I	
Jan. 4 Jan. 5	Final day of registration Classes begin Last day for 100% refund First 50% tuition installment due Graduation applications due for Class of 2007	Jan. 4 Jan. 5 Jan. 12	Final day of registration Classes begin Last day for 100% refund First 50% tuition installment due Last day for 75% refund Last day to add or audit a course
Jan. 18	Martin Luther King Jr. Day – college closed (Online classes will meet asynchronously.)	Jan. 18	Last day to drop a course without a W Martin Luther King Jr. Day –
Jan. 19	Last day for 75% refund Last day to add or audit a course	Jan. 10	college closed (Online classes will meet asynchronously.)
	Last day to drop a course without	Jan. 19	Last day for 50% refund
	a W	Jan. 25	Last day for 25% refund
Jan. 25 Feb. 1	Last day for 50% refund Last day for 25% refund	Jan. 26	Last day to drop a course with a W
	Final 50% tuition installment due	Feb. 1	Final 50% tuition installment due
Mar. 8	Registration for summer session	Feb. 22	Last day to Withdraw
	begins	Mar. 1	Classes end
Mar. 16	Last day to drop a course with a W	Carina	Town II
Mar. 22	Registration for summer semester	Spring –	
A O	begins	Feb. 26	Final day of registration
Apr. 9	Pre-registration for fall semester begins	Mar. 2	Classes begin Last day for 100% refund
Apr. 19	Last day to Withdraw		First 50% tuition installment due
Apr. 26	Classes end	Mar. 9	Last day for 75% refund
May 15	Commencement		Last day to add or audit a course
			Last day to drop a course without a W
		Mar. 15	Last day for 50% refund
		Mar. 22	Last day for 25% refund
		Mar. 23	Last day to drop a course with a W
			Registration for summer semester begins
		Mar. 29	Final 50% tuition installment due
		Apr. 9	Pre-registration for fall semester begins
		Apr. 19	Last day to Withdraw
		Apr. 26	Classes end
		May 15	Commencement

### **Summer Session 2010**

### **Undergraduate Classes**

Session-long Classes

May 21	Final day of registration August graduates notify Office of Registration and Records Cooperative education work	June 21	Last day for 25% refund for 11-week courses Second tuition installment due for 11-week courses
May 24	period begins Classes begin	June 21-25	Financial Aid Disbursement Week/ Pell Census
	Last day for 100% refund First tuition installment due	July 5	Independence Day observance – college closed
May 31	Library opens Memorial Day – college closed	July 6	Final tuition installment due for 8-week courses
June 1	Last day for 75% refund for 8-week courses	July 12	Last day to Withdraw from 8-week courses
	Electronics, physics/chemistry and computer labs open	July 13	Last day to drop an 11-week course with a W
June 2	Last day to add or audit a course Last day to drop a course	July 13-19	Final exams for 8-week classes
June 7	without a W Second tuition installment due	July 19	Final tuition installment due for 11-week courses
Julie 7	for 8-week courses	Aug. 2	Electronics and physics/chemistry labs close
	Last day for 50% refund for 8-week courses		All library materials are due
	Last day for 75% refund for 11-week courses		Last day to Withdraw from 11-week courses
June 14	Last day for 25% refund for 8-week courses	Aug 3 -9	Final exams for 11-week classes
	Last day for 50% refund for 11-week courses		
June 15	Last day to drop an 8-week course with a W		

### **Graduate Classes**

Semester-long Classes		Summer -	- Term I
Apr. 30 May 3	Final day of registration Classes begin Last day for 100% refund First 50% tuition installment	Apr. 30 May 3	Final day of registration Classes begin Last day for 100% refund First 50% tuition installment
May 15 May 17 May 18	Commencement Last day for 75% refund Last day to add or audit a course Last day to drop a course without	May 10	Last day for 75% refund Last day to add or audit a course Last day to drop a course without a W
May 24 May 31	a W  Last day for 50% refund  Memorial Day – college closed  (Online classes will meet	May 15 May 17	Commencement Last day for 50% refund (Online classes will meet asynchronously.)
June 1	asynchronously.) Last day for 25% refund Final 50% tuition installment	May 24	Last day for 25% refund Last day to drop a course with a W
July 5	Independence Day observance – college closed (Online classes will meet synchronously.)	May 31 June 1 June 18	Memorial Day – college closed Final 50% tuition installment Last day to Withdraw
July 12	Last day to drop a course with a W	June 25	Classes end
Aug. 13 Aug. 20	Last day to withdraw Classes end	Summer -	- Term II
		June 25 June 28	Final day of registration Classes begin Last day for 100% refund First 50% tuition installment
		July 5	Independence Day observance – college closed (Online classes will meet synchronously.)
		July 6	Last day for 75% refund Last day to add or audit a course Last day to drop a course without a W
		July 12 July 19	Last day for 50% refund Last day for 25% refund Last day to drop a course with a W
		July 26 Aug. 13 Aug. 20	Final 50% tuition installment Last day to Withdraw Classes end

### Fall Semester 2010

### **Undergraduate Classes**

Oct. 18 Final tuition installment due

Semester-long Classes

Ū	Registration for part-time students Orientation/registration and	Oct. 27	Last day to drop a course with a W or change a course to an
	residence hall check-in for		audit
Aug. 20	new students Final day of registration		Registration for spring semester begins for continuing students
Aug. 20	December graduates notify Office	Nov. 24	Classes canceled – college
	of Registration and Records	N 05 00	closes at 5 p.m.
Aug. 21	Residence hall check-in for returning students	Nov. 25-28	Thanksgiving recess – college closed
Aug. 23	Classes begin	Nov. 29	Classes resume
	Last day for 100% refund	Dec. 10	Classes end
	First tuition installment due Library opens		Electronics and physics/chemistry labs close
	Cooperative education work period begins		Tutoring Resource Center closes All library materials are due
Aug. 30	Electronics, physics/chemistry and computer labs open		Last day for cooperative education work
	Tutoring Resource Center opens		Last day to Withdraw
Sept. 6	Labor Day – college closed	Dec. 13-17	Final examinations
Sept. 7	Last day for 75% refund	Dec. 17	Library, computer labs close
•	Last day to add a course	Dec. 17	Residence halls close at 5 p.m.
	Last day to drop a course without	Dec. 22	College closes at 5 p.m. for recess
	aW	Dec. 23-Ja	n. 3
Sept. 13	Last day for 50% refund		Winter recess – college closed
Sept. 20	Last day for 25% refund		
	Second tuition installment due		for undergraduate terms, not
Sept. 20-24	Financial Aid Disbursement Week/ Pell Census	running on online.	a 16 week schedule, are available
Sept. 28	Career Day - no classes		
	Colloquium		
_			

### **Graduate Classes**

### Semester-long Classes

Aug. 27 Aug. 30	Final day of registration Classes begin Last day for 100% refund		Last day to add a course Last day to drop a course without a W
	First 50% tuition installment due	Sept. 13	Last day for 50% refund
Sept. 6	Labor Day – college closed	Sept. 20	Last day for 25% refund
•	(Online classes will meet asynchronously.)		Last day to drop a course with a W or change a course to an
Sept. 13	Last day for 75% refund	0 07	audit
	Last day to add a course	Sept. 27	Final 50% tuition installment due
	Last day to drop a course without a W	Oct. 15 Oct. 22	Last day to Withdraw Classes end
Sept. 20	Last day for 50% refund	Fall – Tern	n II
Sept. 27	Last day for 25% refund		
	Final 50% tuition installment due	Oct. 22	Final day of registration
Nov. 3	Registration for spring semester	Oct. 25	Classes begin
	begins		Last day for 100% refund
Nov. 12	Last day to drop a course with	NI. a	First 50% tuition installment due
	a W or change a course to an audit	Nov. 1	Last day for 75% refund
Nov. 24	College closes at 5 p.m.		Last day to add a course
110V. 24	(Online classes will meet		Last day to drop a course without a W
	asynchronously.)	Nov. 3	Registration for spring semester
Nov. 25-28	Thanksgiving – college closed		begins
	(Online classes will meet	Nov. 8	Last day for 50% refund
	asynchronously.)	Nov. 15	Last day for 25% refund
Dec. 10	Last day to Withdraw		Last day to drop a course with
Dec. 17	Classes end		a W or change a course to an
Dec. 22	College closes at 5 p.m. for recess		audit
Dec. 23-Ja	-	Nov. 22	Final 50% tuition installment due
Fall – Tern	Winter recess – college closed	Nov. 24	College closes at 5 p.m. (Online classes will meet
Aug. 27	Final day of registration		asynchronously.)
Aug. 30	Classes begin	Nov. 25-28	Thanksgiving – college closed (Online classes will meet
3 - 1	Last day for 100% refund		asynchronously.)
	First 50% tuition installment due	Dec. 10	Last day to Withdraw
Sept. 6	Labor Day - college closed	Dec. 17	Classes end
•	(Online classes will meet	Dec. 22	College closes at 5 p.m. for recess
	asynchronously.)	Dec. 23-Ja	
Sept. 7	Last day for 75% refund		Winter recess – college closed

### **Spring Semester 2011**

### **Undergraduate Classes**

Semester-long Classes

Jan. 6	Residence hall check-in for new students	Mar. 14-18	Spring recess (service offices open)
Jan. 7	Final day of registration	Mar. 21	Classes resume
	Graduation applications due for Class of 2009		Last day to drop a course with a W or change a course to an audit
	Orientation/registration for new	Mar. 24	Honors Convocation
	students	Mar. 30	Registration for summer semester
Jan. 8	Residence hall check-in for		begins for continuing students
	returning students	Apr. 6	Pre-registration for fall semester
Jan. 10	Classes begin		begins for continuing students
	Last day for 100% refund	May 2	Classes end
	First tuition installment due		Last day to Withdraw
	Library opens		Electronics and physics/chemistry
	Co-op work period begins		labs close
Jan. 17	Martin Luther King Jr. Day –		Tutoring Resource Center closes
	college closed		All library materials are due
Jan. 18	Electronics, physics/chemistry and computer labs open		Last day for cooperative education work
	Tutoring Resource Center opens	May 3-10	Final examinations
Jan. 24	Last day for 75% refund	May 10	Library, computer labs close
Jan. 25	Last day to add a course	May 10	Residence halls close at 5 p.m.
	Last day to drop a course without a W	May 15	Commencement
Jan. 31	Last day for 50% refund	Calendars	for undergraduate terms, not
Feb. 7	Last day for 25% refund	running on	a 16 week schedule, are available
	Second tuition installment due	online.	
Feb. 7-11	Financial Aid Disbursement Week/ Pell Census		
Mar. 7	Final tuition installment due		

### **Graduate Classes**

### Semester-long Classes

Jan. 3 Jan. 4	Final day of registration Classes begin Last day for 100% refund First 50% tuition installment due Graduation applications due for Class of 2007.	Jan. 17 Jan. 18 Jan. 24 Jan. 25	Martin Luther King Jr. Day – college closed (Online classes will meet asynchronously.) Last day for 50% refund Last day for 25% refund Last day to drop a course with a W
Jan. 17	Martin Luther King Jr. Day – college closed (Online classes will meet asynchronously.)	Jan. 31 Feb. 21	or change a course to an audit Final 50% tuition installment due Last day to Withdraw
Jan. 18	Last day for 75% refund	Feb. 28	Classes end
	Last day to add a course		
	Last day to drop a course without a W	Spring – 7	Term II
Jan. 24	Last day for 50% refund	Feb. 28	Final day of registration
Jan. 31	Last day for 25% refund	Mar. 1	Classes begin
	Final 50% tuition installment due		Last day for 100% refund
Mar. 9	Registration for summer session begins	Mar. 7	First 50% tuition installment due Last day for 75% refund
Mar. 15	Last day to drop a course with a W or change a course to an audit		Last day to add a course  Last day to drop a course without
Mar. 21	Registration for summer semester		aW
	begins	Mar. 14	Last day for 50% refund
Apr. 8	Pre-registration for fall semester	Mar. 21	Last day for 25% refund
Apr. 18	begins Last day to Withdraw	Mar. 22	Last day to drop a course with a W
Apr. 16 Apr. 25	Classes end		or change a course to an audit Registration for summer semester
May 14	Commencement		begins
way		Mar. 28	Final 50% tuition installment due
Spring – T	ērm I	Apr. 8	Pre-registration for fall semester begins
Jan. 3	Final day of registration	Apr. 18	Last day to Withdraw
Jan. 4	Classes begin	Apr. 25	Classes end
	Last day for 100% refund First 50% tuition installment due	May 14	Commencement
Jan. 10	Last day for 75% refund		
	Last day to add a course		
	Last day to drop a course without a W		

### **Summer Session 2011**

### **Undergraduate Classes**

Session-long Classes

May 20	Final day of registration August graduates notify Office	June 14	Last day to drop a course with a W or change a course to an audit
	of Registration and Records Cooperative education work	June 20	Last day for 25% refund for 11-week courses
May 23	period begins Classes begin		Second tuition installment due for 11-week courses
·	Last day for 100% refund First tuition installment due	June 20-24	Financial Aid Disbursement Week/ Pell Census
M 00	Library opens	July 4	Independence Day – college closed
May 30 May 31	Memorial Day – college closed  Last day for 75% refund for  8-week courses	July 5	Final tuition installment due for 8-week courses
	Electronics, physics/chemistry and computer labs open	July 11	Last day to Withdraw from 8-week courses
	Last day to add a course Last day to drop a course without	July 12	Last day to drop an 11-week course with a W or change a course to an audit
	a W	July 12-18	Final exams for 8-week classes
June 6	Second tuition installment due for 8-week courses	July 18	Final tuition installment due for 11-week courses
	Last day for 50% refund for 8-week courses	Aug. 1	Last Day of Class
	Last day for 75% refund for 11-week courses		Electronics and physics/chemistry labs close
June 13	Last day for 25% refund for 8-week courses		All library materials are due Last day to Withdraw from 11-week
	Last day for 50% refund for 11-week courses	Aug 2 -8	courses Final exams for 11-week classes

### **Graduate Classes**

### Semester-long Classes

	•		
Apr. 29 May 2	Final day of registration Classes begin	May 30	Memorial Day – college closed (Online classes will meet asynchronously.)
	Last day for 100% refund	May 31	Final 50% tuition installment
	First 50% tuition installment	June 17	Last day to Withdraw
May 14	Commencement	June 24	Classes end
May 16	Last day for 75% refund	ouric 24	Classes Cha
	Last day to add a course	_	
	Last day to drop a course without a W	Summer –	· Ierm II
May 23	Last day for 50% refund	June 24	Final day of registration
May 30	Memorial Day – college closed	June 27	Classes begin
iviay 50	(Online classes will meet		Last day for 100% refund
	asynchronously.)		First 50% tuition installment
May 31	Last day for 25% refund	July 4	Independence Day – college
	Final 50% tuition installment		closed (Online classes will
July 4	Independence Day – college		meet asynchronously.)
	closed (Online classes will	July 5	Last day for 75% refund
	meet asynchronously.)		Last day to add a course
July 11	Last day to drop a course with a W or change a course to an audit		Last day to drop a course without a W
Aug. 12	Last day to withdraw	July 11	Last day for 50% refund
Aug. 19	Classes end	July 18	Last day for 25% refund
			Last day to drop a course with a W or change a course to an audit
Summer -	· Term I	July 25	Final 50% tuition installment
Apr. 29	Final day of registration	Aug. 12	Last day to Withdraw
May 2	Classes begin	Aug. 12 Aug. 19	Classes end
iviay Z	Last day for 100% refund	Aug. 19	Classes ella
	First 50% tuition installment		
May 9	Last day for 75% refund		
Way 5	Last day to add a course		
	Last day to drop a course without		
	a W		
May 14	Commencement		
May 16	Last day for 50% refund		
	(Online classes will meet asynchronously.)		
May 23	Last day for 25% refund		
iviay 20	Last day to drop a course with a W		
	or change a course to an audit		
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