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# DEPARTMENT *of* COMPUTING

## College of Business & Technology

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EAST TENNESSEE STATE UNIVERSITY

**Advisement Booklet**  
2018 – 2019

Student Name: \_\_\_\_\_  
ENumber: \_\_\_\_\_

**\*\*\*\*\*SAVE THIS BOOKLET\*\*\*\*\***

You will need to complete the requirements in this booklet in order to graduate with a degree in Computing from ETSU.

Bring this booklet to each advising session to prepare for the next semester.  
If you have questions, please ask your advisor.

**Advisement is required by all Computing Majors each semester before they are allowed to register for the following semester.**

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## Department of Computing Faculty

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## Additional Contact Information

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Office of Admission	Burgin Dossett Hall 106	(423) 439-4213	go2etsu@etsu.edu	<a href="https://www.etsu.edu/admissions/">https://www.etsu.edu/admissions/</a>
Office of Financial Aid	Burgin Dossett Hall 105	See Website	finaid@etsu.edu	<a href="https://www.etsu.edu/finaid/counselors.php">https://www.etsu.edu/finaid/counselors.php</a>
Bursar's Office	Burgin Dossett Hall 202	(423) 439-4212	bursar@etsu.edu	<a href="https://www.etsu.edu/bf/bursar/">https://www.etsu.edu/bf/bursar/</a>
Scholarship Office	Culp Center 2nd Floor	(423) 439-7094	scholarshipoffice@etsu.edu	<a href="https://www.etsu.edu/scholarships/">https://www.etsu.edu/scholarships/</a>
CBAT Scholarships	Sam-Wilson Hall 210	(423) 439-4289	Your Advisor	<a href="https://www.etsu.edu/cbat/students/cbatfinaid.php">https://www.etsu.edu/cbat/students/cbatfinaid.php</a>
Office of the Registrar	Burgin Dossett Hall 102	(423) 439-4230	registra@etsu.edu	<a href="https://www.etsu.edu/reg/">https://www.etsu.edu/reg/</a>

## Degree Works

- You can access your Degree Works through your GoldLink.
- Degree Works is an academic advising and degree audit tool that helps advisors and students track their degree progress in real-time!
- Fully integrated with GoldLink, Degree Works gives students an up-to-date, play-by-play of courses taken and courses needed to help them plan and complete their degree(s) on time!
- "What If..." scenarios, allow students to experiment with changing majors or degree plans.
- Degree Works performs best when using browsers other than Microsoft Edge and IE 9
- Student Education Plan in Degree Works now provides 4 different view:
  - Calendar view - compact view of the 4 year plan
  - Audit view - side by side view of your audit & 4 year plan
  - Edit view - changes to the plan are made in this view
  - Note view - Allows you to print notes attached to a class
- Benefits and Features of Degree Works
  - Provides real-time degree audit, history and information and allows for improved course and degree planning
  - Provides planning scenarios if you change majors, concentrations or plans
  - Improves Advisor communication for courses and requirements
  - GPA calculator - See how final grades may affect the overall GPA
  - Still Need Courses- Hyperlinks to info. about the course, proficiency intensives etc.
- You will not be cleared for graduation until completion of everything in your Degree Works.

## **Bachelor of Science in Computing** with concentrations in

- **Computer Science (CS)**
- **Information Systems (IS)**
- **Information Technology (IT)**

The three concentrations share a common core of courses that provides a strong background in programming, design, computer organization, database management, networking, security, and software engineering. All concentrations require a course in probability and statistics and one in discrete mathematics. Concentrations emphasize practical skills needed to succeed in careers in computing, including technical skills, written and oral communication, project management, and teamwork. Graduates work in a wide variety of industries throughout the region and nation at highly competitive salaries. Many graduates also complete advance degrees, including the department's graduate program.

**COMPUTER SCIENCE (CS)** - The CS concentration supplements the core curriculum with courses in data structures, algorithms, computer architecture, and operating systems. Students apply their knowledge to the development of systems-level software programs, including real-time graphics simulations, distributed systems, and operating systems. This concentration is also recommended for those who plan to do graduate work in computer science.

**INFORMATION SYSTEMS (IS)** - The IS concentration supplements the core curriculum with courses in Enterprise Resource Planning (ERP) and enterprise system implementation and programming. Students select an emphasis in accountancy or management, and explore the application of information systems in business process definition and execution. This concentration is designed for students who wish to apply their knowledge in enterprise information systems, business-oriented computing or within their emphasis area. This concentration is recommended for those who plan to do graduate work in information systems or business administration.

**INFORMATION TECHNOLOGY (IT)** - The IT concentration supplements the core curriculum with courses in web development, database and system administration, and human computer interaction. This concentration is designed for students who wish to apply their knowledge in these fields and for those who plan to do graduate work in information technology.

**The undergraduate Computer Science, Information Systems, and Information Technology programs at ETSU are accredited by the Computing Accreditation Commission (CAC) of ABET, <http://www.abet.org>, an accrediting body recognized by the Council for Higher Education Accreditation (CHEA).**

## Computing Concentration Comparison Chart

Concentration	Computer Science (CS)	Information Systems (IS)	Information Technology (IT)
<b>Total Credit Hours</b>	124 Credit Hours		
<b>General Education Requirements (All Computing must take MATH 1530)</b>	41 Credit Hours	41 Credit Hours <i>Of Those: ECON 2210 (3 cr.) for Social and Behavioral</i>	41 Credit Hours
<b>Computing Core</b>	33 Credit Hours		
<b>Concentration Courses</b>	36 Credit Hours	25-26 Credit Hours *	28 Credit Hours
<b>Major Electives (At least one must be at the 3xxx/4xxx level)</b>	9 Credit Hours	9 Credit Hours	9 Credit Hours
<b>Free Electives</b>	2-5 Credit Hours	0-4 Credit Hours *	10-13 Credit Hours
<b>Minor Suggestions (No Minor Required)</b>	Mathematics Minor Works Well	Accounting or Management Minor Work Well	Many Minors work well due to number of Free Elective Hours
<b>Special Notes</b>	<ul style="list-style-type: none"> <li>• Calculus I</li> <li>• Calculus II</li> <li>• Linear Algebra</li> <li>• Additional Lab Science</li> </ul>	<ul style="list-style-type: none"> <li>• Student Chooses 15 cr. Emphasis in Accounting or Management</li> <li>• Student Chooses: MATH 1840 Analytic Geom. &amp; Diff. Calculus <b><u>OR</u></b> MATH 1910 Calculus I</li> </ul>	<ul style="list-style-type: none"> <li>• Concentration goes furthest in Web Development</li> </ul>
<b>Important Notes</b>	<ul style="list-style-type: none"> <li>• Students may take UIT Proficiency Exam (0 cr.) instead of CSCI 1100 (3 cr.), but will be required to make up the 3 credit hours.</li> <li>• CSCI 1510 is required for all freshman computing students. Transfer students may substitute these credits for an additional Approved Major Elective.</li> <li>• CSCI 1510 may be attempted only once. If a student fails CSCI 1510, then the student must take another approved major elective to replace those 3 credit hours.</li> <li>• All major electives are APPROVED major electives, meaning the electives must be discussed and approved by the student's advisor.</li> <li>• Any course taken at another institution and transferred into ETSU must be evaluated and does not automatically count as a major requirement. Acceptance of transfer coursework is subject to articulation agreements and the decision of the Department Advisor or Chair.</li> <li>• TN eCampus (formerly RODP) courses may not be counted towards a computing concentration.</li> </ul>		

## Graduation Requirements

In order to remain in good standing, a computing major must attain:

- An overall GPA of 2.5 or better; and
- A GPA of 2.5 or better in all computing courses; and
- A grade of “B-” or better in [CSCI 1250](#) and [CSCI 1260](#); and
- A grade of “C-” or better in all other major requirements. This includes both common core and concentration-specific courses and all courses from other departments that satisfy major requirements.
- A minimum grade of “C” in [ENGL 1010](#) and [ENGL 1020](#).
- Complete CSCI 1100 or the UIT Proficiency Exam
- Complete 124 credit hours Including:
  - ETSU General Education Requirements
  - Major Requirements
  - Any Additional Electives
- Complete all required courses in at most three attempts. An attempt is defined as registering for and remaining enrolled in a course after the second week of the semester. Students should refer to the Academic Calendar at <https://www.etsu.edu/etsu/academicdates.aspx> for specific dates.
  - Computing majors and minors will be required to change their program of study if these requirements cannot be met.
- Complete the California Critical Thinking Skills Test (CCTST)
- Major Field Test (If Applicable)
- No Minor is Required

## 2018 – 2019 Gen. Ed. Requirements for Computing Majors (41 credit hours)

### Writing: 6 credit (Grade C or better for both)

- ENGL 1010 Critical Reading & Exp. Writing (3)
- ENGL 1020 Critical Thinking & Argument (3)

### Oral Communication: 3 credits

- COMM 2055 Argumentation & Debate (3)

### Literature: 3 credits (select one)

- ENGL 2030 Literary Heritage (3)
- ENGL 2110 American Literature II (3)
- ENGL 2120 American Literature II (3)
- ENGL 2210 British Literature I (3)
- ENGL 2220 British Literature II (3)
- ENGL 2330 World Literature (3)
- ENGL 2430 European Literature (3)

### Fine Arts: 3 credits (select one)

- ARTA 1030 Art Appreciation (3 credits)
- ARTH 2010 Art History Survey I (3)
- ARTH 2010 Art History Survey II (3)
- BLUE 2150 American Roots Music (3)
- DANC 1500 Dance as Human Experience (3)
- HUMT 2310 Arts & Ideas I (3)
- HUMT 2320 Arts & Ideas II (3)
- MUSC 1030 Introduction to Music (3)
- MUSC 1035 History of Jazz (3)
- THEA 1030 Introduction to Theater (3)

### Humanities: 3 credits (select one)

- ENGL 3150 Lit., Ethics, and Values (3)
- ENGL 3280 Mythology (3)
- ENTC 3020 Technology and Society (3)
- HIST 1110 World Hist. & Civ. to 1500 (3)
- HIST 1120 World Hist. & Civ. since 1500 (3)
- PHIL 1030 Introduction to Philosophy (3)
- PHIL 2020 Introduction to Ethics (3)
- PHIL 2040 Philosophy as Conversation (3)
- RELI 2210 Intro. to the Study of Religion (3)
- PHIL 2640 Science in the Modern World (3)

### History: 6 credits (select two)

- HIST 2010 US to 1877 (3)
- HIST 2020 U.S. Since 1877 (3)
- HIST 2030 History of Tennessee (3)

### Mathematics: 3 credits

- MATH 1530 Prob. and Stats.- Noncalculus (3)

### Social/Behavioral Sciences: 6 credits (select two)

- ANTH 1240 Intro. to Cultural Anthropology (3)
- ECON 2220 Principles of Microeconomics (3)
- ECON 1050 Economics & Society (3) **OR**  
ECON 2210 Principles of Macroeconomics (3)  
**\*IS Concentration Choose ECON 2210**
- GEOG 1012 Intro. to Cultural Geography (3)
- HDAL 2310 Developmental Psychology (3)
- HDAL 2340 Understanding Cultural Div. (3)
- MCOM 1030 Intro. to Mass Communications (3)
- PSCI 1110 Intro. to Political Science (3)
- PSCI 1120 Intro. to American Government (3)
- PSYC 1310 Introduction to Psychology (3)
- SOCI 1020 Introduction to Sociology (3)
- SOCI 2020 Social Problems (3)
- SRVL 1020 Intro. to Service Learning (3)
- WMST 2010 Intro. to Women's Studies (3)

### Natural Sciences: 8 credits, Consisting of two of the following in the same science sequence. (Some require labs which are listed directly after the lecture.)

- ASTR 1010 Astronomy I (4)  
ASTR 1020 Astronomy II (4)  
ASTR 1035 Life in the Universe (4)
- BIOL 1110 Biology for Science Majors I (4)  
BIOL 1111 Biology for Science Majors I Lab (0)  
BIOL 1120 Biology for Science Majors II (4)  
BIOL 1121 Biology for Science Majors II Lab (0)
- CHEM 1110 General Chemistry I (4)  
CHEM 1111 General Chemistry I Lab (0)  
CHEM 1120 General Chemistry II (4)  
CHEM 1121 General Chemistry I Lab (0)
- GEOL 1040 Geosciences: Earth & Society (3)  
GEOL 1041 Geosciences: Earth & Society Lab (1)  
GEOL 1050 Geosciences: Earth Thru Time (3)  
GEOL 1051 Geosciences: Earth Thru Time Lab (1)
- HSCI 2010 Anatomy and Physiology I (4)  
HSCI 2011 Anatomy and Physiology I Lab (0)  
HSCI 2020 Anatomy and Physiology II (4)  
HSCI 2021 Anatomy and Physiology II Lab (0)
- PHYS 2010 Gen. Physics I-Noncalculus (3)  
PHYS 2011 Gen. Physics I Lab-Noncalculus (1)  
PHYS 2020 Gen. Physics II-Noncalculus (3)  
PHYS 2021 Gen. Physics II Lab-Noncalculus (1)
- PHYS 2110 Technical Physics I-Calculus (5)  
PHYS 2120 Technical Physics II-Calculus (5)

**These are the only sciences that count for Computing.**

**Catalog Year 2018-2019  
Computer Science (CS) Concentration Checklist**

**General Education Requirements**

**Written Composition (6 hours)**

- ENGL 1010 Crit. Reading & Exp. Writing (3)
- ENGL 1020 Crit. Thinking & Argumentation (3)

**Oral Communication (3 hours)**

- COMM 2055 Argumentation and Debate

**Literature (3 hours)**

- ENGL \_\_\_\_\_

**Social and Behavioral Science (6 hours)**

- \_\_\_\_\_
- \_\_\_\_\_

**Using Information Technology (0 or 3 hours)**

- CSCI 1100 (3) **OR** Proficiency Exam (0)

**History (6 hours)**

- HIST \_\_\_\_\_
- HIST \_\_\_\_\_

**Fine Arts (3 hours)**

- \_\_\_\_\_

**Humanities (3 hours)**

- \_\_\_\_\_

**Natural Science (8 hours of Approved Sequence)**

- \_\_\_\_\_
- \_\_\_\_\_

**Mathematics (3 hours)**

- MATH 1530 Probability and Statistics (3)

**Major Requirements**

**Computing Core (33 Hours)**

- CSCI 1250 Intro. to Computer Science I (4)  
*(Must be a B- or better)*
- CSCI 1260 Intro. to Computer Science II (4)  
*(Must be a B- or better)*
- CSCI 1400 PC Set-Up and Maintenance (1)
- CSCI 1510 Student in University (3)
- CSCI 1900 Math for Computer Science (3)
- CSCI 2020 Fundamentals of Database (3)
- CSCI 2150 Computer Organization (3)
- CSCI 3250 Software Engineering I (3)
- CSCI 3350 Software Engineering II (3)
- CSCI 3400 Networking Fundamentals (3)
- CSCI 3500 Info. Security and Assurance (3)

**CS Concentration Courses (36 Hours)**

- CSCI 2160 Assembly Language (4)
- CSCI 2200 Unix Fundamentals (3)
- CSCI 2210 Data Structures (4)
- CSCI 3230 Algorithms (4)
- CSCI 4717 Computer Architecture (3)
- CSCI 4727 Operating Systems (3)
- MATH 1910 Calculus I (4)
- MATH 1920 Calculus II (4)
- MATH 2010 Linear Algebra (3)
- Additional Lab Science \_\_\_\_\_ (4)

**Major Electives (9 Hours) \*Co-op and Internships do not apply**

- APPROVED Major Elective CSCI \_\_\_\_\_(3)
- APPROVED Major Elective CSCI \_\_\_\_\_(3)
- 3XXX/4XXX Major Elective CSCI \_\_\_\_\_(3)

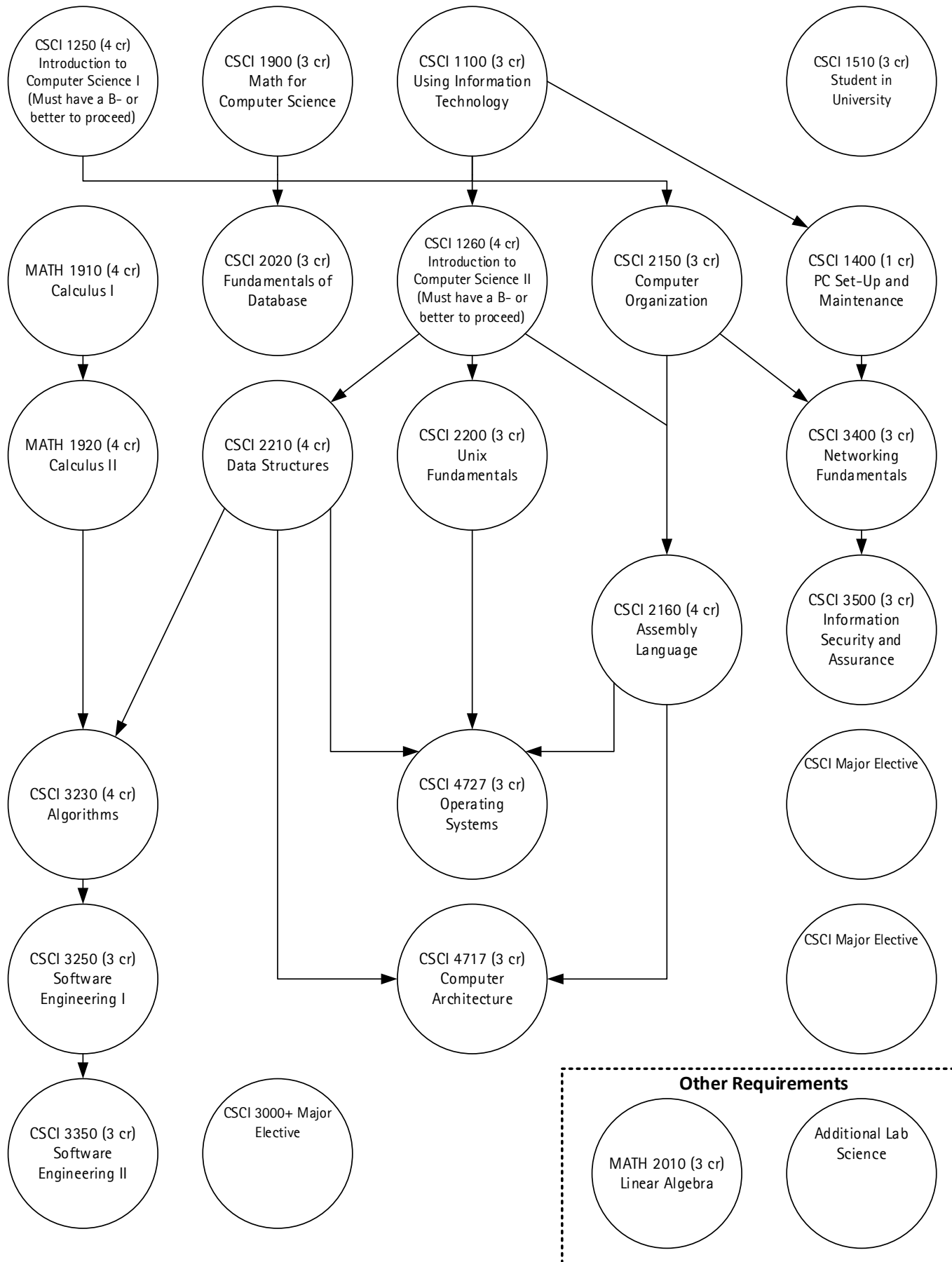
**Free Electives  
(2-5 Hours Based on Hours from CSCI 1100)**

- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )



## Catalog Year 2018-2019

### Computer Science (CS) Prerequisite Courses Tree (prerequisites can change)



## Catalog Year 2018-2019 Information Systems (IS) Concentration Checklist

### General Education Requirements

#### Written Composition (6 hours)

- ENGL 1010 Crit. Reading & Exp. Writing (3)
- ENGL 1020 Crit. Thinking & Argumentation (3)

#### Oral Communication (3 hours)

- COMM 2055 Argumentation and Debate

#### Literature (3 hours)

- ENGL \_\_\_\_\_

#### Social and Behavioral Science (6 hours)

- \_\_\_\_\_
- \_\_\_\_\_

#### Using Information Technology (0 or 3 hours)

- CSCI 1100 (3) **OR** Proficiency Exam (0)

#### History (6 hours)

- HIST \_\_\_\_\_
- HIST \_\_\_\_\_

#### Fine Arts (3 hours)

- \_\_\_\_\_

#### Humanities (3 hours)

- \_\_\_\_\_

#### Natural Science (8 hours of Approved Sequence)

- \_\_\_\_\_
- \_\_\_\_\_

#### Mathematics (3 hours)

- MATH 1530 Probability and Statistics (3)

### Major Requirements

#### Computing Core (33 Hours)

- CSCI 1250 Intro. to Computer Science I (4)  
*(Must be a B- or better)*
- CSCI 1260 Intro. to Computer Science II (4)  
*(Must be a B- or better)*
- CSCI 1400 PC Set-Up and Maintenance (1)
- CSCI 1510 Student in University (3)
- CSCI 1900 Math for Computer Science (3)
- CSCI 2020 Fundamentals of Database (3)
- CSCI 2150 Computer Organization (3)
- CSCI 3250 Software Engineering I (3)
- CSCI 3350 Software Engineering II (3)
- CSCI 3400 Networking Fundamentals (3)
- CSCI 3500 Info. Security and Assurance (3)

#### IS Concentration Courses (25-26 Hours)

- CSCI 1710 Web Design and Development (3)
- CSCI 2910 Server-Side Web Programming (4)
- CSCI 3720 Fund. of Business Info. Systems (3)
- CSCI 3020 Database Advanced Topics (3)
- CSCI 4757 Info. System Implementation (3)
- CSCI 4767 Enterprise Programming (3)
- CSCI 4770 Info. Systems Strategy and Mgmt. (3)
- MATH 1910 Calculus I (4) **OR**  
MATH 1840 Analytic Geom. & Diff. Calculus (3)

#### Major Electives (9 Hours) \*Co-op and Internships do not apply

- APPROVED Major Elective CSCI \_\_\_\_\_(3)  
**\*\*May be additional course related to Emphasis**
- APPROVED Major Elective CSCI \_\_\_\_\_(3)
- 3XXX/4XXX Major Elective CSCI \_\_\_\_\_(3)

### Information Systems Emphasis (15 hours)

#### Choose One Track:

#### Accountancy Track

- ECON 2210 Principles of Macroeconomics (3)
- ACCT 2010 Principles of Accounting I (3)
- ACCT 2020 Principles of Accounting II (3)
- ACCT 3010 Financial Accounting I (3)
- ACCT 3110 Management Accounting (3)

#### Management Track

- ECON 2210 Principles of Macroeconomics (3)
- ACCT 2010 Principles of Accounting I (3)
- MGMT 3000 Organization Behavior Mgmt. (3)
- MGMT 4020 Organizational Theory and Dev. (3)
- MGMT 4030 Current Management Issues (3)

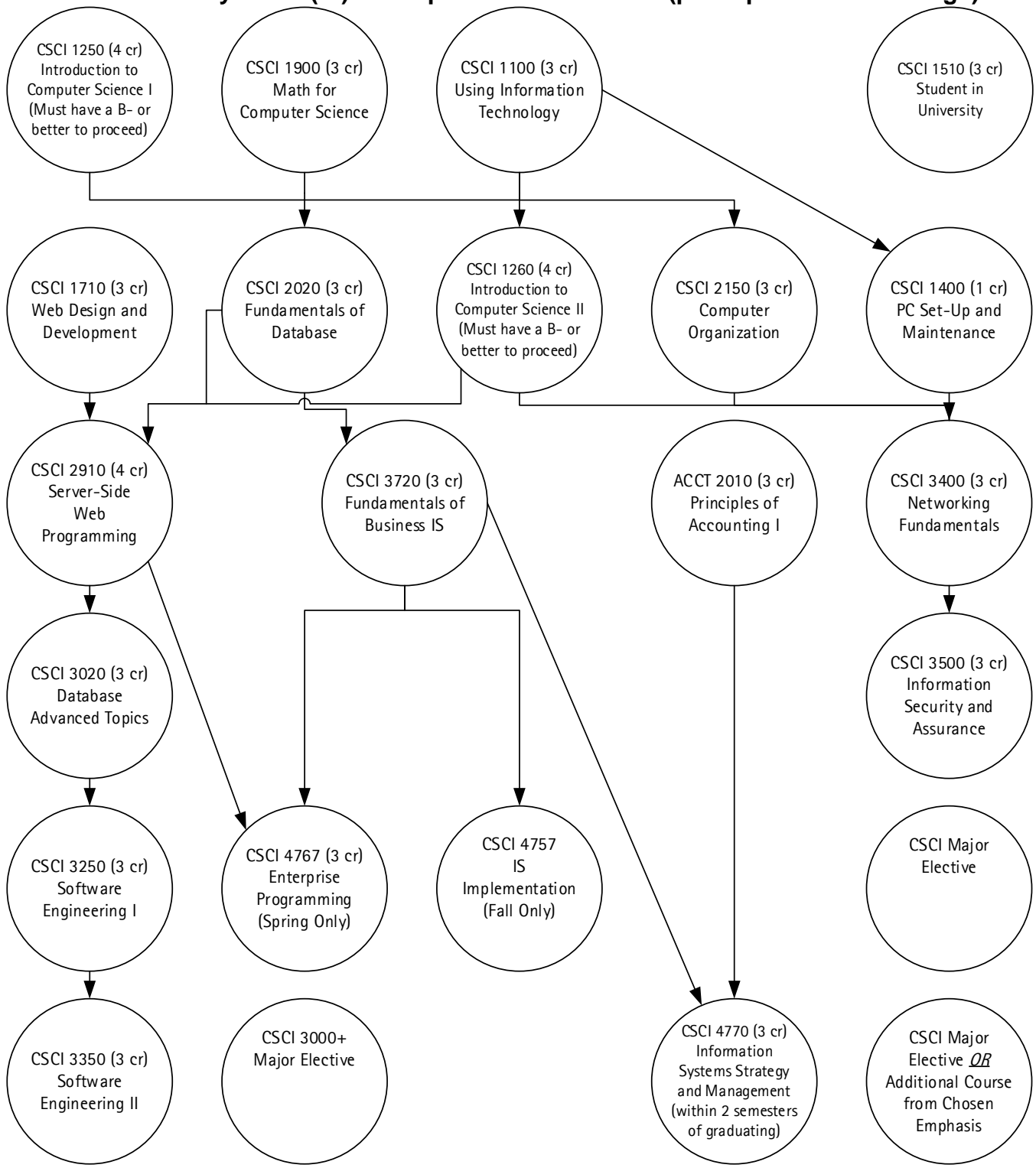
### Free Electives

#### (0-4 Hours Based on Hours from CSCI 1100 and Choice between MATH 1840 and MATH 1910)

- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )

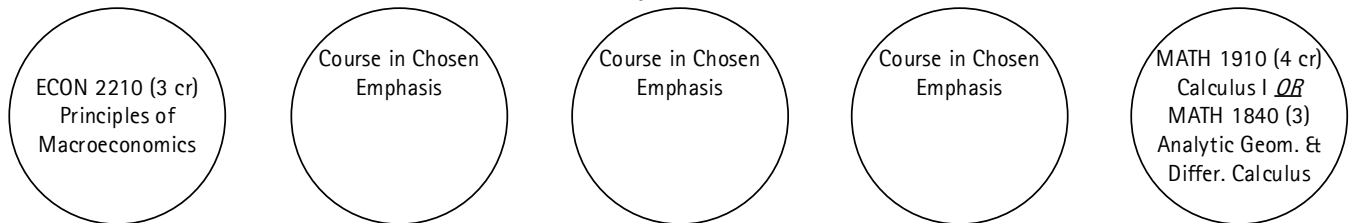
## Catalog Year 2018-2019

### Information Systems (IS) Prerequisite Courses Tree (prerequisites can change)




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#### Other Requirements



**Catalog Year 2018-2019  
Information Technology (IT) Concentration Checklist**

**General Education Requirements**

**Written Composition (6 hours)**

- ENGL 1010 Crit. Reading & Exp. Writing (3)
- ENGL 1020 Crit. Thinking & Argumentation (3)

**Oral Communication (3 hours)**

- COMM 2055 Argumentation and Debate

**Literature (3 hours)**

- ENGL \_\_\_\_\_

**Social and Behavioral Science (6 hours)**

- \_\_\_\_\_
- \_\_\_\_\_

**Using Information Technology (0 or 3 hours)**

- CSCI 1100 (3) **OR** Proficiency Exam (0)

**History (6 hours)**

- HIST \_\_\_\_\_
- HIST \_\_\_\_\_

**Fine Arts (3 hours)**

- \_\_\_\_\_

**Humanities (3 hours)**

- \_\_\_\_\_

**Natural Science (8 hours of Approved Sequence)**

- \_\_\_\_\_
- \_\_\_\_\_

**Mathematics (3 hours)**

- MATH 1530 Probability and Statistics (3)

**Major Requirements**

**Computing Core (33 Hours)**

- CSCI 1250 Intro. to Computer Science I (4)  
*(Must be a B- or better)*
- CSCI 1260 Intro. to Computer Science II (4)  
*(Must be a B- or better)*
- CSCI 1400 PC Set-Up and Maintenance (1)
- CSCI 1510 Student in University (3)
- CSCI 1900 Math for Computer Science (3)
- CSCI 2020 Fundamentals of Database (3)
- CSCI 2150 Computer Organization (3)
- CSCI 3250 Software Engineering I (3)
- CSCI 3350 Software Engineering II (3)
- CSCI 3400 Networking Fundamentals (3)
- CSCI 3500 Info. Security and Assurance (3)

**IT Concentration Courses (28 Hours)**

- CSCI 1710 Web Design and Development (3)
- CSCI 2200 Unix Fundamentals (3)
- CSCI 2910 Server-Side Web Programming (4)
- CSCI 3020 Database Advanced Topics (3)
- CSCI 3110 Adv. Topics in Web Development (3)
- CSCI 3720 Fund. of Business Info. Systems (3)
- CSCI 4417 Intro to System Administration (3)
- CSCI 4927 Human & Computer Interaction (3)
- CSCI 4800 Senior Project in IT (3)

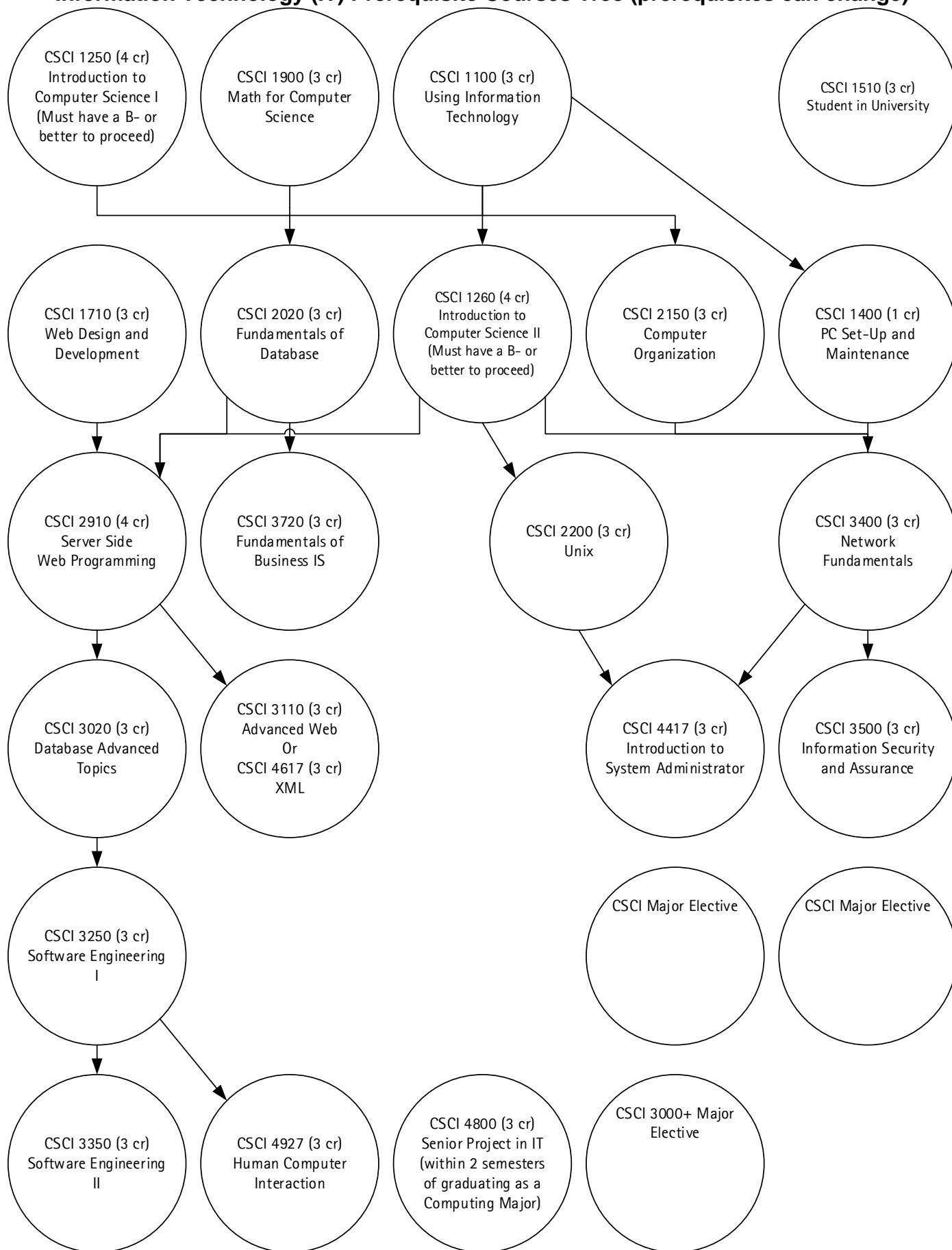
**Major Electives (9 Hours) \*Co-op and Internships do not apply**

- APPROVED Major Elective CSCI \_\_\_\_\_(3)
- APPROVED Major Elective CSCI \_\_\_\_\_(3)
- 3XXX/4XXX Major Elective CSCI \_\_\_\_\_(3)

**Free Electives  
(10-13 Hours Based on Hours from CSCI 1100)**

- |                                    |                                    |
|------------------------------------|------------------------------------|
| <input type="checkbox"/> _____ ( ) | <input type="checkbox"/> _____ ( ) |
| <input type="checkbox"/> _____ ( ) | <input type="checkbox"/> _____ ( ) |
| <input type="checkbox"/> _____ ( ) | <input type="checkbox"/> _____ ( ) |

**Catalog Year 2018-2019**  
**Information Technology (IT) Prerequisite Courses Tree (prerequisites can change)**



## Possible Electives for Concentrations

- **All Concentrations**
  - CSCI 1720 – Intermediate Topics in Web Development
  - CSCI 4157 – Interactive Graphics
  - CSCI 4317 – Internet and Computer Law
  - CSCI 4507 – Computer Forensics
  - CSCI 4537 – Ethical Hacking
  - CSCI 4900 – Independent Study
  - CSCI 4910 – Selected Topics in Computer Science
  - CSCI 4957 – Special Topics in Computer Science
  
- **CS Concentrations**
  - CSCI 1710 – Web Design and Development
  - CSCI 2910 – Server-Side Web Programming
  - CSCI 3020 – Database Advanced Topics
  - CSCI 3720 – Fundamentals of Business Information Systems
  - CSCI 4417 – Intro to System Administration
  - CSCI 4757 – IS Implementation
  - CSCI 4767 – Enterprise Programming
  - CSCI 4927 – Human Computer Interaction
  
- **IS Concentrations**
  - CSCI 2200 – Unix Fundamentals
  - CSCI 2160 – Assembly Language
  - CSCI 2210 – Data Structures
  - CSCI 3230 – Algorithms
  - CSCI 4417 – Introduction to System Administration
  - CSCI 4717 – Computer Architecture
  - CSCI 4727 – Operating Systems
  - CSCI 4927 – Human Computer Interaction
  - One course related to emphasis area
  
- **IT Concentrations**
  - CSCI 2160 – Assembly Language
  - CSCI 2210 – Data Structures
  - CSCI 3230 – Algorithms
  - CSCI 4717 – Computer Architecture
  - CSCI 4727 – Operating Systems
  - CSCI 4757 – IS Implementation
  - CSCI 4767 – Enterprise Programming

## Suggested Course Sequences (Subject to Course Availability)

<b>Computer Science Concentration 124 Credits</b>
<b>Freshman Year First Semester: 16 Credits</b>
CSCI 1100 Using Information Technology (3 cr.)
CSCI 1250 Introduction to Computer Science I (4 cr.)
CSCI 1510 Student in University (3 cr.)
CSCI 1900 Math for Computer Science (3 cr.)
ENGL 1010 Critical Reading & Expository Writing (3 cr.)
<b>Freshman Year Second Semester: 16 Credits</b>
CSCI 1260 Introduction to Computer Science II (4 cr.)
CSCI 2020 Fundamentals of Database (3 cr.)
ENGL 1020 Critical Thinking and Argumentation (3 cr.)
COMM 2055 Argumentation and Debate (3 cr.)
MATH 1530 Probability & Statistics – Noncalculus (3 cr.)
<b>Sophomore Year First Semester: 16 Credits</b>
CSCI 2150 Computer Organization (3 cr.)
CSCI 2200 UNIX Fundamentals (3 cr.)
MATH 1910 Calculus I (4 cr.)
History Course (3 cr.)
Humanities Course (3 cr.)
<b>Sophomore Year Second Semester: 15 Credits</b>
CSCI 2210 Data Structures (4 cr.)
CSCI 1400 PC Set-up and Maintenance (1 credit)
MATH 1920 Calculus II (4 cr.)
History Course (3 cr.)
Social/Behavioral Sciences (3 cr.)
<b>Junior Year First Semester: 14 Credits</b>
CSCI 2160 Assembly Language (4 cr.)
CSCI 3400 Networking Fundamentals (3 cr.)
MATH 2010 Linear Algebra (3 credit hours)
Natural Science Sequence 1st Course (4 cr.)
<b>Junior Year Second Semester: 16 Credits</b>
CSCI 3230 Algorithms (4 cr.)
CSCI 3500 Information Security and Assurance (3 cr.)
CSCI Approved Major Elective (3 cr.)
Free Elective (2 cr.)
Natural Science Sequence 2nd Course (4 cr.)
<b>Senior Year First Semester: 16 Credits</b>
CSCI 3250 Software Engineering I (3 cr.)
CSCI 4717 Computer Architecture (3 cr.)
CSCI Approved Major Elective (3 cr.)
Additional Natural Science (4 cr.)
Literature Course (3 cr.)
<b>Senior Year Second Semester: 15 Credits</b>
CSCI 3350 Software Engineering II (3 cr.)
CSCI 4727 Operating Systems (3 cr.)
CSCI 3000+ Major Elective (3 cr.)
Social/Behavioral Science (3 cr.)
Fine Arts Course (3 cr.)

<b>Information Systems Concentration 124 Credits</b>
<b>Freshman Year First Semester: 16 Credits</b>
CSCI 1100 Using Information Technology (3 cr.)
CSCI 1250 Introduction to Computer Science I (4 cr.)
CSCI 1510 Student in University (3 cr.)
CSCI 1900 Math for Computer Science (3 cr.)
ENGL 1010 Critical Reading & Expository Writing (3 cr.)
<b>Freshman Year Second Semester: 16 Credits</b>
CSCI 1260 Introduction to Computer Science II (4 cr.)
CSCI 1710 Web Design and Development (3 cr.)
COMM 2055 Argumentation and Debate (3 cr.)
ENGL 1020 Critical Thinking and Argumentation (3 cr.)
MATH 1530 Probability & Statistics–Noncalculus (3 cr.)
<b>Sophomore Year First Semester: 14 Credits</b>
CSCI 1400 PC Set-up and Maintenance (1 credit)
CSCI 2020 Fundamentals of Database (3 cr.)
CSCI 2150 Computer Organization (3 cr.)
MATH 1840 (3 cr.) OR MATH 1910 (4 credit)
ECON 2210 - Social/Behavioral Sciences (3 cr.)
Free Elective (0-1 cr.)
<b>Sophomore Year Second Semester: 16 Credits</b>
CSCI 2910 Server-Side Web Programming (4 cr.)
CSCI 3400 Networking Fundamentals (3 cr.)
ACCT 2010 - IS Emphasis Course (3 cr.)
Humanities Course (3 cr.)
History Course (3 cr.)
<b>Junior Year First Semester: 16 Credits</b>
CSCI 3020 Database Advanced Topics (3 cr.)
CSCI 3720 Fund. of Business Info Systems (3 cr.)
CSCI Approved Major Elective (3 cr.)
IS Emphasis Course (3 cr.)
Natural Science Sequence 1st Course (4 cr.)
<b>Junior Year Second Semester: 16 Credits</b>
CSCI 3500 Information Security and Assurance (3 cr.)
CSCI 4767 Enterprise Programming (3 cr.)
IS Emphasis Course (3 cr.)
Social/Behavioral Sciences (3 cr.)
Natural Science Sequence 2nd Course (4 cr.)
<b>Senior Year First Semester: 15 Credits</b>
CSCI 3250 Software Engineering I (3 cr.)
CSCI 4757 Information Systems Implementation (3 cr.)
CSCI 3000+ Approved Major Elective (3 cr.)
IS Emphasis Course (3 cr.)
Literature Course (3 cr.)
<b>Senior Year Second Semester: 15 Credits</b>
CSCI 3350 Software Engineering II (3 cr.)
CSCI 4770 Info Systems Strategy & Mgmt (3 cr.)
CSCI Major Elective (3 cr.)
Fine Arts Course (3 cr.)
History Course (3 cr.)

<b>Information Technology Concentration 124 Credits</b>
<b>Freshman Year First Semester: 16 Credits</b>
CSCI 1100 Using Information Technology (3 cr.)
CSCI 1250 Introduction to Computer Science I (4 cr.)
CSCI 1510 Student in University (3 cr.)
CSCI 1900 Math for Computer Science (3 cr.)
ENGL 1010 Critical Reading & Expository Writing (3 cr.)
<b>Freshman Year Second Semester: 16 Credits</b>
CSCI 1260 Introduction to Computer Science II (4 cr.)
CSCI 1710 Web Design and Development (3 cr.)
COMM 2055 Argumentation and Debate (3 cr.)
ENGL 1020 Critical Thinking and Argumentation (3 cr.)
MATH 1530 Probability & Statistics – Noncalculus (3 cr.)
<b>Sophomore Year First Semester: 16 Credits</b>
CSCI 1400 PC Set-up and Maintenance (1 credit)
CSCI 2020 Fundamentals of Database (3 cr.)
CSCI 2150 Computer Organization (3 cr.)
CSCI 2200 UNIX Fundamentals (3 cr.)
Humanities Course (3 cr.)
Free Elective (3 cr.)
<b>Sophomore Year Second Semester: 16 Credits</b>
CSCI 2910 Server-Side Web Programming (4 cr.)
CSCI 3400 Networking Fundamentals (3 cr.)
CSCI Approved Major Elective (3 cr.)
Social/Behavioral Sciences (3 cr.)
History Course (3 cr.)
<b>Junior Year First Semester: 15 Credits</b>
CSCI 3020 Database Advanced Topics (3 cr.)
CSCI 3720 Fund. of Business Info Systems (3 cr.)
CSCI 3500 Information Security and Assurance (3 cr.)
Free Elective (3 cr.)
Literature Course (3 cr.)
<b>Junior Year Second Semester: 15 Credits</b>
CSCI 3110 Advanced Topics in Web Development (3 cr.)
CSCI 4417 Introduction to System Administration (3 cr.)
CSCI Approved Major Elective (3 cr.)
Social/Behavioral Sciences (3 cr.)
Fine Arts Course (3 cr.)
<b>Senior Year First Semester: 14 Credits</b>
CSCI 3250 Software Engineering I (3 cr.)
CSCI 3000+ Major Elective (3 cr.)
Free Elective (4 cr.)
Natural Science Sequence 1st Course (4 cr.)
<b>Senior Year Second Semester: 16 Credits</b>
CSCI 3350 Software Engineering II (3 cr.)
CSCI 4800 Senior Project in Information Technology (3 cr.)
CSCI 4927 Human Computer Interaction (3 cr.)
History Course (3 cr.)
Natural Science Sequence 2nd Course (4 cr.)





## Computing Minor Requirements

Name: \_\_\_\_\_  
 ENumber: \_\_\_\_\_

- CSCI 1250 Intro. to Computer Science I 4 cr.
- CSCI 1900 Math for Computer Science 3 cr.
- CSCI 1260 Intro. to Computer Science II 4 cr.
- Approved CSCI Elective (Recommend a 2xxx Level Course) 3 cr.
- CSCI 3xxx or 4xxx Level Course 3 cr.
- CSCI 3xxx or 4xxx Level Course 3 cr.
- CSCI 3xxx or 4xxx Level Course 3 cr.

**Total Credit Hours: 23 cr.**

### Minor Suggested Course Sequence based on Interests

Business Interest	Programming Interest	Networking & Security Interest
	*Requires MATH 1910 & 1920	
First Semester	First Semester	First Semester
CSCI 1250 Intro to Computer Science I (4)	CSCI 1250 Intro to Computer Science I (4)	CSCI 1250 Intro to Computer Science I (4)
CSCI 1900 Math for Computer Science (3)	CSCI 1900 Math for Computer Science (3)	CSCI 1900 Math for Computer Science (3)
Second Semester	Second Semester	Second Semester
CSCI 1260 Intro to Computer Science II (4)	CSCI 1260 Intro to Computer Science II (4)	CSCI 1260 Intro to Computer Science II (4)
CSCI 2020 Intro to Database (3)		CSCI 2150 Computer Organization (3)
		CSCI 1400 PC Set-Up and Maintenance (1)
Third Semester	Third Semester	Third Semester
CSCI 3720 Fund. Of Business Info Systems (3)	CSCI 2210 Data Structures (4)	CSCI 3400 Networking Fundamentals (3)
Fourth Semester	Fourth Semester	Fourth Semester
CSCI 4757 Info. System Implementation (3)	CSCI 3230 Algorithms (4) *	CSCI 3500 Information Security & Assurance (3)
CSCI 4957 Special Topics Course (3)	CSCI 4957 Special Topics Course (3)	CSCI 4957 Special Topics Course (3)
	Fifth Semester	
	CSCI 3250 Software Engineering I (3)	
23 Credit Hours	25 Credit Hours	24 Credit Hours



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DEPARTMENT *of* COMPUTING

College of Business & Technology

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EAST TENNESSEE STATE UNIVERSITY