The schedule below is an EXAMPLE of how you can arrange your class schedule. Please consult your advisor for specific changes that may need to be made.

### Upper division courses (All students are required to have a minimum of 42 hrs. upper division courses distributed throughout Major/Supporting/Gen Ed/Free Electives categories).

Refer to the University Catalog at [http://www.cataogs.eku.edu/](http://www.cataogs.eku.edu/) regarding University and General Education Requirements. All baccalaureate degree seeking students who enter the University are required to successfully complete one writing intensive course following completion of the ENG 102, ENG 105, or HON 102/103. Writing intensive courses are designated with the suffix “W” following the course prefix and number (e.g. HUM 300W).

Applied Critical & Creative Thinking (ACCT) Requirement: Computer Science majors will fulfill ACCT with CSC 349, 440, 491, 549, or 495 with a program-approved topic. (Credit hours are incorporated into program requirements.)

### BIOINFORMATICS OPTION REQUIREMENTS

† Select THREE (3) COURSES from the following (restrictive elective 1):

- CSC 320 Intro. To Algorithms
- CSC 440 Applied Software Engineering
- CSC 520 Multimedia System & Forensics
- CSC 544 Database Admin & Security
- CSC 545 Theory of Database Systems

† PLUS TWO (2) COURSES from the following (restrictive elective 2):

- CSC 300 Intro. To Numerical Methods
- CSC 308 Mobile App Development for ... 
- CSC 315 3D Modeling
- CSC 316 3D Game Engine Design
- CSC 320 Intro. To Algorithms
- CSC 332 Digital Storage Device Forensics
- CSC 350 Principles of Prog. Languages
- CSC 360 Computer Organization & Architecture
- CSC 390 Adv. Prog. Techniques with ...
- CSC 400 Operating Systems
- CSC 425 Compiler Construction
- CSC 440 Intro. to Software Engineering
- CSC 460 Comp. Network & System Admin.
- CSC 490 Seminar in ... 
- CSC 491 Console Game Design
- CSC 520 Multimedia Sys. & Forensics
- CSC 538 Computer Crime & Forensics
- CSC 540 Integrated DB Applications
- CSC 544 Database Admin & Security
- CSC 545 Theory of Database Systems
- CSC 546 Artificial Intelligence
- CSC 547 Network Forensics & Investigation
- CSC 558 Personal Electronic Device Forensics
- CSC 559 Graphic Programming

### BIOINFORMATICS OPTION SUPPORTING COURSE

- BIO 111 or 112 Cell and Molecular Biology
- BIO 112 Ecology and Evolution
- BIO 315 Genetics
- BIO 331 Cell Biology
- BIO 348 Animal Physiology
- BIO 511 or 512 Expert. Approaches in Molecular Bio.
- BIO 531 or 532 Principles of Molecular Biology I
- BIO 531S Principles of Molecular Biology I (service learning component)
- BIO 533 Bioinformatic Principles & Apps.
- BIO 598 Special Problems (minimum of 3 hrs.)
- CHE 111 General Chemistry I
- CHE 111L General Chemistry Lab I
- CHE 112 General Chemistry II
- CHE 112L General Chemistry Lab II
- CHE 361 Organic Chemistry I
- CHE 361L Organic Chemistry Lab I
- CHE 362 Organic Chemistry II
- CHE 362L Organic Chemistry Lab II
- CHE 430 and Biochemistry Laboratory
- CHE 431 and Biochemistry Laboratory
- CHE 432 and Biochemistry Laboratory
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- CHE 432 and Biochemistry Laboratory
- MAT 124 or Calculus I
- MAT 124H Honors Calculus I
- STA 270 Applied Statistics I
- STA 320 Applied Statistics II

Bracketed items must be taken concurrently.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Number</th>
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<tr>
<td>CORE COURSE REQUIREMENTS</td>
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<td>Intro. To Computer Concepts</td>
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<td>CSC 190</td>
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<td>CSC 545</td>
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</tbody>
</table>

**EXAMPLE**

### Department of Computer Science

521 Lancaster Ave.
417 Wallace Bldg.
Richmond, KY 40475
859-622-2398

### Email Contact:
ka-wing.wong@eku.edu 859-622-2398

### Website:
www.computerscience.eku.edu

**BIO 111 or 112 must be taken BEFORE BIO 315.**

### Fall Semester | Spring Semester

#### Freshman Year
- ASO 100 1
- CSC 185 3
- CSC 190 3
- BIO 111 or 112 (fulfills Gen. Ed. 4) 4
- CHE 111 (fulfills Gen. Ed. 4) 3
- CHE 111L 1
- **TOTAL** 15
- CSC 191 3
- CSC 195 3
- BIO 315 4
- CHE 112 3
- CHE 112L 1
- Gen. Ed. 1A (ENG 101) 3
- **TOTAL** 17

#### Sophomore Year
- CSC 310 3
- STA 270 3
- BIO 331 3
- CHE 361 3
- CHE 361L 1
- Gen Ed. 1B (ENG 102) 3
- **TOTAL** 16
- CSC 340 3
- BIO 348 4
- CHE 362 3
- CHE 362L 1
- Gen. Ed. 1C ( Oral Comm.) 3
- **TOTAL** 14

#### Junior Year
- † CSC Restricted Elective 2 (ACCT) 3
- BIO 511, 531 or 531S 3
- Gen. Ed. 3A (Arts) or 3A/B (Integrated) 3
- Gen. Ed. 5A (History) 3
- Wellness 3
- **TOTAL** 15-16
- † CSC Restricted Elective 1 3
- MAT 124 or 124H (fulfills Gen. Ed. 2) 2
- STA 320 3
- Gen. Ed. 5B (Soc. & Behav. Sci) 3
- Free Elective 2
- **TOTAL** 15

#### Senior Year
- † CSC Restricted Elective 1 3
- BIO 533 3
- Gen. Ed. 3B (Humanities) or 3A/B (Integrated) 3
- Gen. Ed. 6 (Diversity) 3
- **TOTAL** 12
- † CSC Restricted Elective 1 3
- † CSC Restricted Elective 2 3
- BIO 598 3
- CHE 431 (spring only) or CHE 430 3
- CHE 432 1
- Gen. Ed. 6 (Diversity) 3
- **TOTAL** 16

**Curriculum Guide**

Computer Science, B.S. (Bioinformatics Option)
2013-2014

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