### 2018/19 IOWA STATE COMPUTER SCIENCE FLOWCHART (120 CREDITS)

#### Class based on ALEKS Math Assessment
- **MATH 140** - 3 cr
- **MATH 143** - 4 cr
- Calculus Prep

#### COMS 101
Orientation
R cr

#### Math Option
- **MATH 165**
  - Calculus I
  - 4 cr

#### MATH 166
- Calculus II
- 4 cr

#### COMS 203
- Careers in Computer Science
  - R cr

#### COMS 228
- Introduction to Data Structures
  - JAVA Language
  - (Pre-Req placement into Math 143 or higher)
  - 4 cr

#### COMS 227
- Introduction to Object-Oriented Programming
  - JAVA Language
  - (Pre-Req C- in Math 165)
  - 4 cr

#### MATH 230
- Discrete Computational Structures
  - (Pre-Req C- in Math 165 and ComS 227; Engl 150)
  - 3 cr

#### ENGL 212
- Introduction to Programming
  - 3 cr

#### Pre-req: Placement into Math 143 or higher

#### List of Approved Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMS 101</strong></td>
<td>Orientation</td>
<td>R cr</td>
</tr>
<tr>
<td><strong>COMS 102</strong></td>
<td>Introduction to Operating Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td><strong>MATH 165</strong></td>
<td>Calculus I</td>
<td>4 cr</td>
</tr>
<tr>
<td><strong>MATH 166</strong></td>
<td>Calculus II</td>
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<td>3 cr</td>
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</table>

#### Additional Requirements

- **Computer Science transfer courses with a grade of "C" or better will be eligible for departmental review.**
- **Please be aware that if you transfer in credits which fulfill all your general education requirements (right two columns) there may be semesters where you will not be a full time student. You must have a minor to meet full time status (12 credits or more). Minor information can be found at:**
- [http://catalog.iastate.edu/collegescurricula/minorstext](http://catalog.iastate.edu/collegescurricula/minorstext)

### Requirements

#### World Language
- 1 year at the college level or 3 years high school

#### Arts and Humanities - 12 Cr
- (1) Phil 343 - 3 credits
- (2) Select additional 9 credits from LAS approved list on website and degree audit

#### Social Sciences - 9 Cr
- Select credits form the LAS approved list on website and degree audit

#### Science Sequence Options
- BIOL 211/212 + labs OR BIOL 255/256 + labs OR CHEM 177/178 + labs OR GEOL 100/102 + labs OR PHYS 221/222 OR PHYS 241/242
- ComS 300 - 6 credits

#### ComS 400 - 6 credits
- 400 Level Options

#### ComS 414 is not an elective option

### Graduation Requirement
- 8 credits from Computer Science must be at the 300+ level courses with a grade of "C" or better from ISU

#### Transfer students must have at least 15.0 crs at 300+ level or above in ComS courses while in residence at ISU

#### LAST 32 CREDITS must be taken at Iowa State University
- Adviser can waive six of the last 32 credits taken at Iowa State