### Computer Science Flow Chart

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

#### MATH 165
- Calculus I
  - **4 Cr**
  - *C- or Better*

#### MATH 166
- Calculus II
  - **4 Cr**
  - *C- or Better*

#### COM S 230
- Discrete Computational Structures
  - (Pre Req C- in Math 165 and ComS 227; Engl 150).
  - **3 Cr**
  - *C- or Better*

#### CPR E 281
- Digital Logic
  - Sophomore classification
  - **4 Cr**
  - *C- or Better*

#### COM S 231
- Algorithms
  - (Pre Req C- in Com S 228; Math 166, Com S 230 or CprE 310, Engl 150)
  - **3 Cr**
  - *C- or Better***

#### COM S 232
- Introduction to Computer Architecture & Machine level programming
  - (Pre Req C- in Com S 228 and Math 165; Com S 230 or CprE 281, Engl 250)
  - **3 Cr**
  - *C- or Better***

#### STATISTICS
- Option
  - (choose one)
  - 305, 330, 341
  - **3 Cr**

#### Additional Science Requirements
- Science Sequence and Science course(s) from approved science list must total 13 credits.
  - **3-5 Cr**

### Courses Highlighted in Yellow
**3 Cr** - U.S. Diversity or International Perspective
**3 Cr** - Arts & Humanities
**3 Cr** - Social Sciences

#### COM S 277
- Introduction to Object-Oriented Programming, JAVA
  - (Pre Req placement into Math 143 or higher)
  - **4 Cr**
  - *C- or Better*

#### COM S 228
- Introduction to Data Structures, JAVA
  - (Pre Req C- in 227, CR/E Math 165)
  - **3 Cr**
  - *C- or Better*

#### ENGL 150
- (If English ACT 24 or higher, placement into English 250)
  - **3 Cr**
  - *C- or Better prior to 2017 catalog*

#### ENGL 250
- (Pre Req ENGL 150 or exempt from ENGL150)
  - **3 Cr**
  - *C or Better*

#### Social Science
- **3 Cr**
- Elective or World Language 101
  - **3/4 Cr**

#### Arts & Humanities
- **3 Cr**
- Elective or World Language 102
  - **3/4 Cr**

#### SpCm 212
- Public Speaking
  - **3 Cr**
  - *Only needed to minimum of 120 credits to graduate*

#### COM S 400 - 6 credits
- **400 level options:**
  - Select 2 courses, including at least one from Group 1 and an additional course from Group 1 or 2.
  1. **ComS 409, 410, 413, 415, 417, 425, 430, 437, 453, 457, 461, 487, SE/CprE 416**

# Graduation Requirement
- **Minimum of 120 credits**
- 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 may need to add a minor to meet full time status (12 credits or more.) Minor information can be found at: [http://catalog.iastate.edu/collegescurriculum/minors.txt](http://catalog.iastate.edu/collegescurriculum/minors.txt)

### Requirements
- **World Language:**
  - 1 year at the college level or 3 years at high school.

#### Arts and Humanities – 12 Cr
1. Phil 345 – 3 Cr
2. Select an additional 9 Cr from LAS approved list on website and degree audit.

#### Social Sciences – 9 Cr
Select Credits from the LAS approved list on website and degree audit.

#### Science – 13 Cr
- **SCIENCE SEQUENCE:**
  - BIOL 211/212 +Labs OR CHEM 177/178 + Labs OR PHYS 221/222 + Labs
  - **& ADDITIONAL SCIENCE REQUIREMENT:**
    - ANTHR 202, ANTHR 307, BMB 221, BIOL 204, BIOLD 258, BIOL 312, BIOL 355, CHEM 163-231, ENT 370, ENV S 324, FS HN 167, GEN 313, GEN 313L, GEN 320, GEO 100, GEO 100-111, GEO 102, GEO 201, 401, 451, MAT E 215 & 215L, METEOR 206, MTEOR 301, PSYCH 310, PHYS 221 or higher.

### Computer Science Transfer Courses
- **MAY BE taken at Iowa State.**
- Adviser can waive 6 of the last 32 credits taken at Iowa State.

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**#* Elective courses - Any course that is not remedial (can use minor or second major courses)**

**** U.S. Diversity, International Perspective, Arts & Humanities and Social Sciences approved course lists can be found on your degree audit, click on link for that particular requirement on your degree audit.