## 2022/23 COMPUTER SCIENCE FLOW CHART

**Class based on ALEKS Math Assessment**
- MATH 1400 - 3 Cr, College Algebra
- MATH 1430 - 4 Cr, Calculus Prep

### 1. Calculus I
- MATH 1650
- **4 Cr**
- C- or Better

### 2. Calculus II
- MATH 1660
- **4 Cr**
- C- or Better

### 3. Select a Science Sequence from the list on the right.
- **8-10 Crs total**

### 4. Discrete Computational Structures
- MATH 2300
- **3 Cr**
- C- or Better

### 5. Software Development Practices
- MATH 3000/4000
- **3 Cr**
- C- or Better

### 6. Theory of Computing
- MATH 3310
- **3 Cr**
- C- or Better

### 7. Principles of Programming Languages
- COMS 3420
- **3 Cr**
- C- or Better

### 8. Senior Project
- COMS 4020
- **3 Cr**
- C- or Better

### 9. Introduction to operating systems
- COMS 3520
- **3 Cr**
- C- or Better

### 10. Check Prereqs
- COMS 3000/4000
- **3 Cr**
- C- or Better

### 11. Level course from approved options
- COMS 4000
- **3 Cr**
- C- or Better

### 12. Elective:
- Arts/Hum Phil 3430
- **3 Cr**
- **U.S. Diversity, International Perspective, Arts & Humanities approved course list**

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**Elective courses:** Any course that is not remedial (can use minor or second major courses) - only need to meet 120 Cr total.

**U.S. Diversity, International Perspective, Arts & Humanities and Social Sciences approved course lists can be found in the Academic Progress Report and University/LAS approved lists on our website.**

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### Requirements

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

**Arts and Humanities – 12 Cr.**
1. Phil 3430 – 3 Cr
2. Select additional 9 credits from LAS approved list on website and APR.

**Social Sciences – 9 Cr**
Select credits from the LAS approved list on website and APR.

3 cr. - **U.S. Diversity**
3 cr. - **International Perspective.**
Select credits from the University approved list on website and APR.

**Science Sequence Options**
- BIL 2110 & 2120 + Labs OR
- BIL 2550 & 2560 + Labs OR
- CHEM 1770 & 1780 + Labs OR
- GEOL 1000 & 1020 + Labs OR
- PHYS 2310 & 2320 + Labs

Some classes offered only Fall or Spring

**Elective or World Language 1010**
- **3 Cr**

**Elective or World Language 1020**
- **3/4 Cr**

**COM S 3000/4000 – 15 credits**
- (Min of 6 credits at 4000 level)

**3000 level options**
- COM S 3190, 3360, 3620, 3630
- **4000 level options (6 credits)**
- Com S 4070, 4090, 4100, 4120, 4130, 4150, 4170, 4180, 4210, 4240, 4250, 4260, 4300, 4330, 4350, 4370, 4400, 4410, 4530, 4540, 4550, 4610, 4720, 4740, 4760, 4770, 4870, 4880, 4890, 4980

**Arts/Hum Phil 3430**

**Philosophy of Technology**
- **3 Cr**

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**# GRADUATION REQUIREMENT**
8 credits from Computer Science must be at the 3000+ level courses with a grade of “C” or better from ISU

Transfer Students must have at least 15.0 crs at 3000+ level or above in COM S courses while in residence at ISU

Last 32 Credits must be taken at Iowa State University.

Adviser can waive 6 of the last 32 credits taken at Iowa State.