2019-2021 COMPUTER SCIENCE FLOW CHART

**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 .dits 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

**Science Sequence Options**

- BIOI 2110 & 2120 + Labs OR
- BIOI 2550 & 2560 + Labs OR
- CHEM 1770 & 1780 + Labs OR
- GEOL 3000 & 1020 + Labs OR
- PHYS 2310 & 2320 + Labs OR
- PHYS 2410 & 2420 + Labs
  
Some classes offered only Fall OR Spring

- **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, 4560, 4720, 4740, 4760, 4770, 4870, 4880, Math 4810, CprE 4160, CprE 4190, CprE 4300, CprE 4310, CprE 4580, CprE 4890

- **Com S 4140 is not an elective option**

**Minimum of 120 Cr.**

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**Class based on ALEKS Math Assessment**

- MATH 1400 - 3 cr, College Algebra
- MATH 1430 - 4 cr, Calculus Prep

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**1. MATH 1650 Calculus I**

- **4 Cr**
- C or Better

**2. MATH 1660 Calculus II**

- **4 Cr**
- C or Better

**3. MATH 2300 Discrete Computational Structures**

- (Pre-Rq C or in Com S 2280 and Math 1650; Engl 1500)
- **3 Cr**
- C or Better

**4. MATH 3110 Algorithms**

- (Pre-Rq C or in Com S 2280, Math 1660, Com S 2300 or CprE 3100, Engl 1500)
- **3 Cr**
- C or Better

**5. MATH 3310 Theory of Computing**

- (Pre-Rq C or in Com S 2280, Math 1660 and in Coms S 2300 or CprE 3100; Engl 2500)
- **3 Cr**
- C or Better

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**6. STATISTICS**

- Option (choose one)
  - 3050, 3300, 3410
  - **3 Cr**

**7. Com S 3420 Principles of Programming Languages**

- (Pre-Rq C or in 2280 and Math 1650; Com S 2300 or CprE 3100)
- **3 Cr**
- C or Better

**8. Com S 4020 Senior Project**

- (Pre-Rq Com S 3090, 3110, 3210, 3310, Eng 2500, SpCm 2120)
- **3 Cr**
- C or Better

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**Enrollment Requirements**

- 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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**Elective or World Language**

- 1010
- **3 Cr**
- 3/4 Cr *

**Elective or World Language**

- 1020
- **3 Cr**
- 3/4 Cr *

**Elective* or World Language**

- **3 Cr**

**Elective* or World Language**

- **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.