

# TRANSFER COMPUTER SCIENCE FLOW CHART

Minimum of 1200 Cr.

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

**COURSES HIGHLIGHTED IN YELLOW MAY BE TRANSFRABLE TO THE COMPUTER SCIENCE MAJOR AT IOWA STATE.** View the Iowa State Equivalency Guide: <http://www.admissions.iastate.edu/equiv/index.php>



**MATH 1650**  
Calculus I  
**4 Cr**  
*C- or Better*

**COMS 1010**  
Orientation  
**R Cr**

**COMS 1270**  
Introduction to  
Computer  
Programming- Python  
**3 Cr/ C- or Better**

**Social  
Science**  
**3 Cr**

**ENGL 1500**  
(If English ACT 24  
or higher,  
placement into  
English 2500.



**MATH 1660**  
Calculus II  
**4 Cr**  
*C- or Better*

**COMS 2270**  
Object- Oriented Programming  
JAVA  
(Pre-Req placement into Math 1430  
or higher)  
**4 Cr | C- or Better**

**Arts &  
Humanities**  
**3 Cr**

**ENGL 2500**  
(Pre-Req ENGL 1500 or exempt  
from ENGL1500)  
**3 Cr**  
*C or Better*  
Lib 1600 (orientation)



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

**COMS 2300**  
Discrete  
Computational  
Structures  
(Pre-Req C- in Com S 2270  
and Math 1650; Engl 1500).  
**3 cr**  
*C- or Better*

**COMS 2280**  
Intro to Data Structures  
JAVA (Pre- Req C- in 2270  
CR/E Math 1650)  
**3 Cr**  
*C- or Better*

**Social  
Science**  
**3 Cr\*\***

**Elective or  
World  
Language  
1010**



**8-10 Crs total**

**COMS 3110**  
Algorithms  
(Pre-Req C- in Com S  
2280; Math 1660, Com S  
2300 or CprE 3100,  
Engl 1500)  
**3 Cr/ C- or Better##**

**COMS 3210**  
Introduction to Computer  
Architecture & Machine level  
programming.  
(Pre-Req C- in Com S 2280 and  
Math 1650; ComS 2300 or CprE  
2810, Engl 2500)  
**3 Cr C- or Better##**

**COMS 3000/4000**  
(Check Pre-Req  
requirements) Select  
course from approved  
options  
**3Cr**  
*C- or Better##*

**Elective or  
World  
Language  
102**  
**3/4 Cr \***



**COMS  
3000/4000**  
Check Prereqs  
Select course  
from approved  
options.  
**3 Cr**

**COMS 3090**  
Software Development  
Practices.  
(Pre-Req C- in  
ComS 228 and Math 165)  
**3 Cr/ C- or Better##**

**MATH**  
Math option,  
(Choose one)  
2070, 2650, 2660,  
2670, 3040, 3140,  
3170  
**3/4 Cr**

**SpCm  
2120**  
  
**Public  
Speaking**

**Arts &  
Hum**  
**3 Cr**

**LAS  
2030**  
Prof.  
Career  
Prep



**STATISTICS  
Option  
(Choose one)**  
**3050,3300,3410,  
3470 -3 Cr**

**COMS 3310**  
Theory of Computing  
(Pre-Req C- in ComS  
2280, Math 1660 and  
in ComS 2300 or CprE  
3100; Engl 2500)  
**3 Cr/ C- or Better##**

**COMS 3270**  
Advanced Prog.  
Techniques, C/C++  
(Pre-Req C- in Com S  
2280 and Math 1650)  
**3 Cr**  
*C- or Better##*

**ENGL  
3020/3050/  
3090/3140**  
**3 Cr/C or Better**

**Arts/Hum  
PHIL 3430**  
Philosophy of  
Technology  
**3 Cr \*\***



**COMS 3420**  
Principles of  
Programming Languages.  
(Pre-Req C- in 2280 and  
Math 1650; Com S 2300  
or CprE 3100)  
**3Cr/C- or Better##**

**COMS  
3000/4000**  
Check Prereqs  
Select course  
from approved  
options. **3 Cr**

**COMS 4000**  
(Check Pre-Req  
requirements)  
4000 Level course  
from Approved  
options  
**3 Cr**

**Social Science**  
Can be combined with  
U.S. Diversity or  
International  
Perspective  
Requirement.

**Elective\***



**COMS 4020**  
Senior Project  
(Pre-Req ComS 3090,  
3110,3210, 3310, Engl  
2500, SpCm 2120)  
**3 Cr/C-or Better##**

**COMS 3520**  
Introduction to  
operating systems  
(Pre-Req 3210, 3270,  
Engl 2500)  
**3Cr**  
*C- or Better##*

**COMS 4000**  
(Check Pre-Req  
requirements) 4000  
Level course from  
Approved options  
**3 Cr**  
*C- or Better##*

**Arts/Hum**  
Can be combined  
with U.S. Diversity  
or International  
Perspective  
Requirement.  
**3Cr\*\***

**Elective\***

\* Elective courses: Any course that is not remedial (can use minor or second major courses) - only need to meet 1200 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.

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.)

## 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

- BIOL 2110 and 2120 + Labs **OR**
  - BIOL 2550 and 2560 + Labs **OR**
  - CHEM 1770 and 1780 + Labs **OR**
  - GEOLOG 1000 and 1020 + Labs **OR**
  - PHYS 2310 and 2320 + Labs **OR**
  - PHYS 2410 and 2420 + Labs
- Some classes offered only Fall OR Spring*

### COMS 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, 4190, 4240, 4250, 4260, 4300, 4330, 4340, 4350, 4370, 4400, 4410, 4530, 4540, 4550, 4590, 4610, 4630, 4640, 4720, 4740, 4760, 4770, 4870, 4880, Math 4210, 4810, Cpr E 4190, Cpr E 4300, Cpr E 4310, Cpr E 4580, Cpr E 4890, SE 4160, 4220  
*Com S 4140 and 4900 are not options.*

## ## 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.