BS Computer Science-Computer Science SCS2   catalog year: 2018-2019
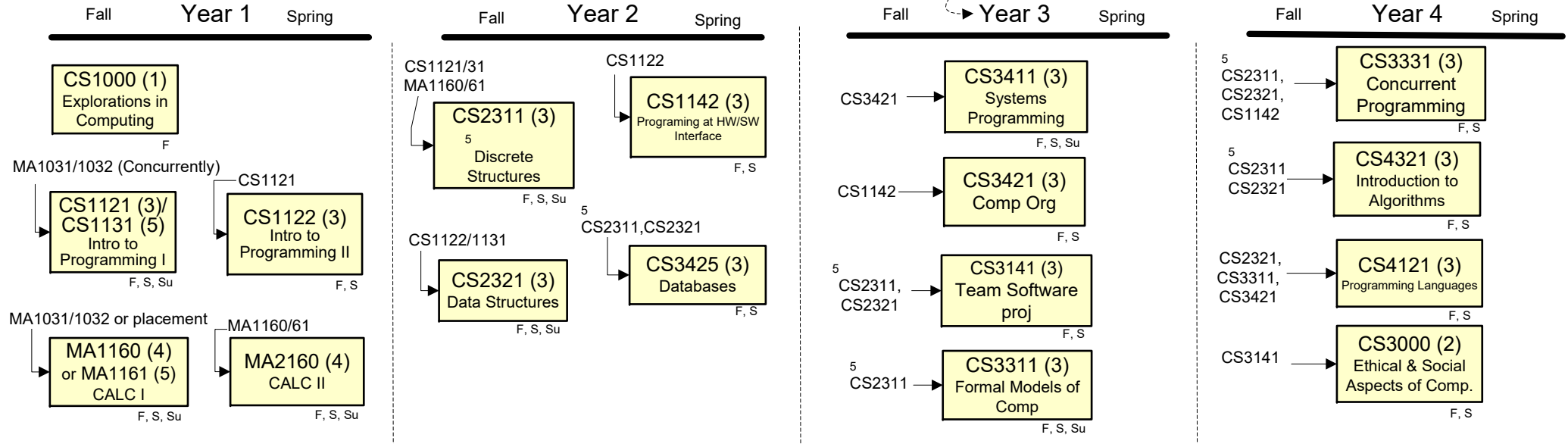
SAMPLE PLAN
Calculus-ready students
This Flowchart is meant as a guide only, any questions about scheduling should be brought up with your academic advisor.

Last Update May 4, 2018

A good time to co-op

Year 1
Fall — Spring

CS1000 (1) Explorations in Computing   F

MA1031/1032 (Concurrently)

CS1121 (3)/ CS1131 (5) Intro to Programming I   F, S, Su

CS1121 → **CS1122 (3)** Intro to Programming II   F, S

MA1031/1032 or placement

MA1160 (4) or MA1161 (5) CALC I   F, S, Su

MA1160/61 → **MA2160 (4)** CALC II   F, S, Su

Credits 15.5 — 14.5

Year 2
Fall — Spring

CS1121/31 MA1160/61 → **CS2311 (3)** 5 Discrete Structures   F, S, Su

CS1122 → **CS1142 (3)** Programing at HW/SW Interface   F, S

CS1122/1131 → **CS2321 (3)** Data Structures   F, S, Su

CS2311,CS2321 → 5 **CS3425 (3)** Databases   F, S

15.5 — 16.5

Year 3
Fall — Spring

CS3421 → **CS3411 (3)** Systems Programming   F, S, Su

CS1142 → **CS3421 (3)** Comp Org   F, S

5 CS2311, CS2321 → **CS3141 (3)** Team Software proj   F, S

5 CS2311 → **CS3311 (3)** Formal Models of Comp   F, S, Su

15.5 — 15.5

Year 4
Fall — Spring

5 CS2311, CS2321, CS1142 → **CS3331 (3)** Concurrent Programming   F, S

5 CS2311 CS2321 → **CS4321 (3)** Introduction to Algorithms   F, S

CS2321, CS3311, CS3421 → **CS4121 (3)** Programming Languages   F, S

CS3141 → **CS3000 (2)** Ethical & Social Aspects of Comp.   F, S

17 — 16

Optional Ordering

UN1015 (3) Composition   F, S, Su

UN1025 (3) Global Issues   F, S, Su

May use upper level language course in place of UN1025.
First Year Only

Core List

____ (3) Crit./Creat. Thinking

[1]Lab Science (4)

Co-Curr. Unit (.5)

Co-Curr. Unit (.5)

MA1160/61 → **MA2330 (3)** Linear Algebra   F, S, Su

MA 1031/1032 or MA 2160 for 3710 → **MA2720 (4)/ MA3710 (3)** Statistics   F, S, Su

____ (3) Social & Ethical Responsibility   Core List

[1]Lab Science (3)

Co-Curr. Unit (.5)

3 ____ (3) Social/Behavioral Resp.

3 ____ (3) Communication/Comp

Co-Curr. Unit (.5)

Math Elective (3) MA3xxx

[2]Technical Elective (3)

3 ____ (3) Human/Fine Arts

Co-Curr. Unit (.5)

CS4xxx (3) CS Elective   Check Pre-reqs

[2]Technical Elective (3)

3 ____ (3) 2nd Course from one of the HASS lists

Co-Curr. Unit (.5)

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[2]Technical Elective (3)

HU3120 (3) Sci and Tech Communication   F, S, Su

Free Elective (5)

CS4yyy (3) CS Elective   Check Pre-reqs

[4]Tech & Society (3) Dept Required

Free Elective (4-6)

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1) Lab Science Courses: Need 7 total credits, two different disciplines (BL,CH,FW,GE,PH, etc), one course must include course & lab. Pick courses off the Science Course list from the Gen Ed STEM list.
2) Technical Electives: List available on CS advising site
3) HASS (Humanities & Fine Arts, Social & Behavioral Sciences) electives: 6 credits must be upper division 3000-4000 level - UN1015 and UN1025 are prerequisites for all upper division HASS courses.
4) Tech & Society: Select one of the following: SS3510, SS3511, SS3520, SS 3530, SS3580, SS3630, SS3800, SS3801, SS3820, SS3581, HU3701, HU3710,HU3810, MA4945
5) MA3210 Intro to Combinatorics can be used in place of CS2311Discrete Structures and used for any CS course that has CS2311 as a pre-req.

Undergraduate advisor: Rekhi 221/227 Email:csadvisor@mtu.edu Sarah Kuhl

Prerequisite Course → | Yellow boxes are Major Specific courses | Blue Boxes are General Education Courses |

Total 123 plus 3 units co-curricular activities