

## SPIRE REGISTRATION INFORMATION for 2020 Fall

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

### CLASS NOTES/COMMENTS INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.

**CICS 191CICS1**  
FYS - CICS  
*Hia Ghosh, Purity Mugambi, Spencer Lane, Emily Pruc, Rik Sengupta, Zachary While, Arun Dunna*

FIRST-YEAR CICS STUDENTS ONLY.

REGISTRATION AVAILABLE ONLY DURING SUMMER ORIENTATION. Sections 01, 06, 08, 17: Data Science and AI for Good; Sections 02, 14, 16: Applications of Computer Science; Section 03: History of Programming Languages; Sections 04, 05, 07: Ethics; Sections 09, 13, 15: Computers and Robotics in the Media; Sections 10, 11, 12: Math Puzzles; RAP (Dickinson Hall) Sections 19: Study Skills and Success; RAP (Webster Hall) Sections 21, 22: Data Science and AI for Good. Students in CICS Connect RAP in Dickinson enroll in "Success in Computer Science: Ethics, Society and Study Skills" (CICS 191CICS1). Take a deep dive into what it takes to become an effective, ethical and socially-aware computer scientist. We will look at best practices for studying in computer science courses (with an eye towards preparation for COMPSCI 187), as well as ethical considerations important to the computing professions and organizations doing computer science for the common good. See <https://www.umass.edu/rap/computer-science-majors>

**CICS 298A**  
P-LEADRSH:COMMUNCTNG-EXPTISE  
*Emma Anderson*

COMPSCI 186 OR COMPSCI 187 WITH A GRADE OF C OR BETTER.

FRESHMEN, SOPHOMORE, JUNIOR COMPUTER SCIENCE AND INFORMATICS MAJORS ONLY.

SENIORS AND STUDENTS IN OTHER MAJORS MAY BE CONSIDERED IF AVAILABLE SEATS. STUDENTS FROM OTHER MAJORS MAY BENEFIT FROM THIS COURSE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**CICS 305**  
SOC ISS IN CMPTNG  
*Siobhan Mei, Michelle Trim, Justin Obara, Thomas Pickering*

CS MAJORS: ENGLWRIT 112 (OR ENGLISH WRITING WAIVER), COMPSCI 220, COMPSCI 230 AND COMPSCI 240 (OR 250), ALL WITH A GRADE OF C OR BETTER. INFORM MAJORS: ENGLWRIT 112 (OR ENGLISH WRITING WAIVER) AND INFO 248, BOTH WITH A GRADE OF C OR BETTER.

ODD LECTS: SENIOR AND JUNIOR CS MAJORS ONLY.  
EVEN LECTS: SENIOR AND JUNIOR INFORMATICS MAJORS ONLY.

SATISFIES JUNIOR YEAR WRITING REQUIREMENT. ODD LECTURES FOR CS MAJORS; EVEN LECTURES FOR INFORM MAJORS. LECT 01-02 MEET TOGETHER; LECT 03-04...LECT 13-14. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**CICS 397A**  
ST-PREDICTIVE ANALYTICS W/PYTHON  
*Matthew Rattigan*

COMPSCI 119 (OR COMPSCI 121 OR COMPSCI 186 OR COMPSCI 187) AND STATISTICS 240 (OR OIM 240, OR PSYCH 240, OR STATISTICS 515, OR RES-ECON 212, OR SOCIOL 212) BOTH WITH A GRADE OF C OR BETTER.

UNDERGRADUATE STUDENTS ONLY.

LINEAR ALGEBRA (MATH 235) IS HELPFUL BUT NOT REQUIRED. STUDENTS WITH ALTERNATE PROGRAMMING OR STATISTICS BACKGROUND MAY REQUEST OVERRIDE FOR CONSIDERATION. AFTER INFORM MAJORS REGISTER, CICS 397A WILL OPEN TO ALL UNDERGRADUATES WHO MEET PREREQUISITE, IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 119**  
INTRO PROGRAMMING  
*William Verts*

UNDERGRADUATE NON-CS MAJORS ONLY.

CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 120**  
PROBLEM SOLVING W/INTERNET  
*William Verts*

UNDERGRADUATE NON-CS MAJORS ONLY.

CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. ALL STUDENTS MUST HAVE ACCESS TO A COMPUTER CONNECTED TO THE INTERNET FOR PERFORMING ASSIGNMENTS. COMPUTER MUST RUN WINDOWS 7, 8, OR 10, OR MAC OS/X 10.6 AND LATER. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 121**  
PROBLEM SOLVING W/COMPUTERS  
*Jaime Dávila, Adam Kohan, David Barrington, Peter Klempner, Joseph Canning, Cole Smith, Ghazaleh Parvini, Collin Giguere, Eduardo Calle Ortiz, Meng-Chieh Chiu, Jaime Davila*

COMPLETION OF THE R1 GEN ED (OR A SCORE OF 20 OR HIGHER ON THE MATH PLACEMENT TEST PART A), OR ONE OF THE FOLLOWING COURSES: MATH 101&102 OR MATH 104 OR MATH 127 OR MATH 128 OR MATH 131 OR MATH 132.

FRESHMEN AND SOPHOMORE UNDERGRADUATE STUDENTS ONLY.

INTENDED FOR CS AND INFORM MAJORS OR THOSE APPLYING TO THESE MAJORS. NON-MAJORS MAY OPT TO TAKE COMPSCI 119 (OR COMPSCI 190F). OPEN TO SOPHOMORE AND FRESHMAN ONLY. JUNIORS AND SENIORS WILL BE CONSIDERED CLOSER TO CLASS START, IF AVAILABLE SEATS. PRIORITY FOR MAJORS WITH 121 REQUIREMENT. ATTENDANCE IN LECT AND LAB IS MANDATORY. ICLICKER IS REQUIRED. FOR QUESTIONS ABOUT 121 COURSE ADMINISTRATION, CONTACT CS121admin@cs.umass.edu. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 186**  
USING DATA STRUCTURES  
*Marc Liberatore*

COMPSCI 121 WITH A GRADE OF C OR BETTER AND COMPLETION OF THE R1 GEN ED (OR A SCORE OF 20 OR HIGHER ON THE MATH PLACEMENT TEST PART A), OR ONE OF THE FOLLOWING COURSES: MATH 101&102 OR MATH 104 OR MATH 127 OR MATH 128 OR MATH 131 OR MATH 132.

INFORM MAJORS OR FRESHMAN AND SOPHOMORE UNDERGRADUATES ONLY.

STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

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<b>COMPSCI 187</b> PROGRAMMING W/DATA STRCTRS  <i>Gordon Anderson, Rui Wang</i>	COMPSCI 121 WITH A GRADE OF B OR BETTER (OR COMPSCI 186 (OR COMPSCI 190D) WITH A GRADE OF C OR BETTER).	UNDERGRADUATES ONLY.	REQUIRED PREREQUISITE: GRADE OF B OR BETTER IN COMPSCI 121 (OR C OR BETTER IN COMPSCI 186). ALL STUDENTS WITH AP OR TRANSFER CREDIT FOR 121 WILL REQUIRE AN OVERRIDE TO ENROLL. AFTER CS MAJORS REGISTER, 187 WILL OPEN TO ALL UNDERGRADUATES WHO MEET PREREQUISITE. NON-CS MAJORS WITH THE REQUIRED PREREQUISITE TAKEN AT UMASS SHOULD NOT REQUEST AN OVERRIDE AND WAIT FOR THE MAJOR RESTRICTION TO BE REMOVED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 190F</b> FOUNDATIONS OF DATA SCIENCE  <i>Thomas Bernardin, Benjamin Marlin</i>	COMPLETION OF THE R1 GENERAL EDUCATION REQUIREMENT (OR A SCORE OF 20 OR HIGHER ON THE MATH PLACEMENT EXAM, PART A) OR ONE OF THE FOLLOWING COURSES: MATH 101 & 102, MATH 104, 127, 128, 131, OR 132.	UNDERGRADUATE STUDENTS IN MAJORS OTHER THAN COMPUTER SCIENCE AND MATH/STATISTICS.	CROSS-LISTED WITH STATISTICS 190F BUT NOT OFFERED SAME SEMESTER (COMPSCI 190F FALL; STATISTICS 190F SPRING). CS AND MATH/STATS MAJORS ARE NOT ELIGIBLE. CLASSROOM WITH COMPUTER WORKSTATIONS FOR STUDENT USE DURING LABS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 198C</b> P-INTRO-C PROGRAMMING LANGUAGE  <i>Timothy Richards, Meng-Chieh Chiu, J Moss</i>		UNDERGRADUATES ONLY.	IT IS RECOMMENDED THAT STUDENTS TAKE COMPSCI 198C BEFORE TAKING COMPSCI 230. STUDENTS ARE STRONGLY ADVISED TO HAVE COMPLETED COMPSCI 121 OR HAVE A SIMILAR BACKGROUND PRIOR TO TAKING COMPSCI 198C.
<b>COMPSCI 220</b> PGMG METHODOLOGY  <i>Marius Minea, Jaime Davila</i>	COMPSCI 187 WITH A GRADE OF 'C' OR BETTER.	CS MAJORS ONLY.	STUDENTS ARE STRONGLY ADVISED NOT TO TAKE 220 AND 230 IN THE SAME SEMESTER. DUE TO ENROLLMENT PRESSURE, THE UPC RESERVES THE RIGHT TO DROP STUDENTS ENROLLED IN BOTH FROM EITHER COURSE WHEN NECESSARY. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 230</b> CMPTR SYS PRINC  <i>Meng-Chieh Chiu, Peter Klempere</i>	COMPSCI 187 WITH A GRADE OF 'C' OR BETTER.	CS MAJORS ONLY.	STUDENTS ARE STRONGLY ADVISED NOT TO TAKE 220 AND 230 IN THE SAME SEMESTER. DUE TO ENROLLMENT PRESSURE, THE UPC RESERVES THE RIGHT TO DROP STUDENTS ENROLLED IN BOTH FROM EITHER COURSE WHEN NECESSARY. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 240</b> RSNG UNDER UNCERTAINTY  <i>Sunghoon Lee, Jie Xiong</i>	COMPSCI 187 AND MATH 132 WITH A GRADE OF 'C' OR BETTER.	CS MAJORS ONLY.	STUDENTS ARE STRONGLY ADVISED NOT TO TAKE 240 AND 250 IN THE SAME SEMESTER. DUE TO ENROLLMENT PRESSURE, THE UPC RESERVES THE RIGHT TO DROP STUDENTS ENROLLED IN BOTH FROM EITHER COURSE WHEN NECESSARY. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 250</b> INTRO TO COMPUTATION  <i>Marius Minea, Ghazaleh Parvini</i>	COMPSCI 187 AND MATH 132 WITH GRADE OF 'C' OR BETTER.	CS AND MATH MAJORS ONLY.	STUDENTS ARE STRONGLY ADVISED NOT TO TAKE 240 AND 250 IN THE SAME SEMESTER. DUE TO ENROLLMENT PRESSURE, THE UPC RESERVES THE RIGHT TO DROP STUDENTS ENROLLED IN BOTH FROM EITHER COURSE WHEN NECESSARY. OPEN TO CSENG MAJORS WITH ECE 241 (OR ECE 242) WITH C OR BETTER, IF AVAILABLE SEATS. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 311</b> INTRO TO ALGORITHMS  <i>Ramesh Sitaraman, Hava Siegelmann</i>	COMPSCI 187 AND COMPSCI 250 (OR MATH 455) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 320</b> INTRO TO SOFTWARE ENGINEERING  <i>Gordon Anderson, David Fisher</i>	COMPSCI 220 WITH GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	NO OPTION FOR PASS/FAIL. SATISFIES INTEGRATIVE EXPERIENCE REQUIREMENT FOR CS MAJORS. MEETS WITH COMPSCI 529. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .

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<p><b>COMPSCI 325</b> INTRO TO HUMAN CMPTR INTERACTN <i>Narges Mahyar</i></p>	<p>JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.</p>	<p>SEATS RESERVED FOR INFORM MAJORS AS COURSE IS REQUIRED FOR MAJOR. ELIGIBLE STUDENTS MAY BE UNABLE TO ENROLL IN OPEN SEATS UNTIL THE RESERVE FOR INFORM MAJORS IS MET. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 326</b> WEB PROGRAMMING <i>Emery Berger</i></p>	<p>COMPSCI 220 (OR COMPSCI 230) WITH A GRADE OF C OR BETTER, OR INFO 248 AND COMPSCI 186 (OR COMPSCI 187) BOTH WITH A GRADE OF C OR BETTER.</p>	<p>JUNIOR AND SENIOR CS AND INFORMATICS MAJORS ONLY.</p> <p>NO OPTION FOR PASS/FAIL. SATISFIES INTEGRATIVE EXPERIENCE REQUIREMENT FOR CS AND INFORM MAJORS. SEATS RESERVED FOR INFORM MAJORS AS THIS COURSE IS REQUIRED FOR MAJOR. ELIGIBLE STUDENTS MAY BE UNABLE TO ENROLL IN OPEN SEATS UNTIL THE RESERVE FOR INFORM MAJORS IS MET. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 335</b> INSIDE BOX:HOW CMPTRS WORK <i>Charles Weems</i></p>	<p>COMPSCI 220 (OR COMPSCI 230) WITH A GRADE OF C OR BETTER.</p>	<p>JUNIOR AND SENIOR CS MAJORS ONLY.</p> <p>MAY OPEN TO SOPHOMORE CS MAJORS MEETING PREREQUISITE, IF AVAILABLE SEATS. STUDENTS WILL BE EXPECTED TO PURCHASE A HARDWARE KIT (MORE DETAILS WILL BE PROVIDED TO ENROLLED STUDENTS).STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 345</b> PRACT &amp; APPLICS OF DATA MGMT <i>Liam Rothschild-Shea</i></p>	<p>COMPSCI 187 (OR INFO 248 AND COMPSCI 186) WITH A GRADE OF C OR BETTER.</p>	<p>JUNIOR AND SENIOR CS AND INFORMATICS MAJORS ONLY.</p> <p>STUDENTS ARE EXPECTED TO HAVE BASIC PROGRAMMING SKILLS, AND BE ABLE TO USE LAPTOPS IN CLASS. STUDENTS WHO HAVE TAKEN COMPSCI 445 ARE NOT ELIGIBLE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 377</b> OPERATING SYSTEMS <i>Timothy Richards</i></p>	<p>COMPSCI 230 WITH A GRADE OF 'C' OR BETTER.</p>	<p>JUNIOR AND SENIOR CS MAJORS ONLY.</p> <p>STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 383</b> ARTIFICIAL INTELLIGENCE <i>Matthew Rattigan</i></p>	<p>COMPSCI 220 (OR COMPSCI 230) AND COMPSCI 240 (OR STAT 515), BOTH WITH GRADE OF 'C' OR BETTER.</p>	<p>JUNIOR AND SENIOR CS MAJORS ONLY.</p> <p>STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 391L</b> S-CMPTR CRIME LAW:INVSTG/PRVCY <i>Marvin Cable</i></p>	<p>COMPSCI 230 AND ENGLWRIT 112 WITH A GRADE OF 'C' OR BETTER, OR CW G.ED. REQUIREMENT.</p>	<p>JUNIOR AND SENIOR CS MAJORS ONLY.</p> <p>STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 403</b> INTRO ROBTCS:PRCP,MECH,DYN,CTRL <i>Roderic Grupen</i></p>	<p>MATH 235 AND COMPSCI 220 (OR COMPSCI 230) WITH GRADE OF C OR BETTER.</p>	<p>JUNIOR AND SENIOR CS MAJORS ONLY.</p> <p>UNDERGRADUATE PROGRAMMING CLASS, C OR C++ EXPERIENCE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 410</b> COMPILER TECHNIQUES <i>J Moss</i></p>	<p>COMPSCI 230 AND COMPSCI 250 (OR MATH 455), BOTH WITH A GRADE OF C OR BETTER.</p>	<p>JUNIOR AND SENIOR CS MAJORS ONLY.</p> <p>MEETS WITH COMPSCI 610. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>

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<b>COMPSCI 453</b> COMPUTER NETWORKS  <i>James Kurose</i>	COMPSCI 230 (OR COMPSCI 377) WITH A GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	IN FALL 2020, THIS COURSE WILL BE TAUGHT ONLINE, USING EXTENSIVE ON-LINE MATERIAL INCLUDING PRE-RECORDED VIDEO MATERIAL, INTERACTIVE EXERCISES, AND ONLINE DISCUSSION. THERE ARE NO SYNCHRONOUS LECTURES. INSTEAD, WE THERE WILL BE A WEEKLY, ONE-HOUR IN-PERSON AND ON-LINE ACTIVE LEARNING AND OPEN DISCUSSION PERIOD. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>
<b>COMPSCI 460</b> INTRO COMPUTER/NETWRK SECURITY  <i>Christopher Misra</i>	COMPSCI 377 WITH GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 461</b> SECURE DISTRIBUTED SYSTEMS  <i>Gregory Stone</i>	COMPSCI 326, COMPSCI 345, COMPSCI 377, COMPSCI 453, OR COMPSCI 497P WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	THE COURSE IS BASED ON A FLIPPED CLASSROOM AND USES A HYBRID INSTRUCTION MODEL. SOME OF THE COURSE CONTENT IS DELIVERED ONLINE, HOWEVER STUDENTS ARE REQUIRED TO ATTEND WEEKLY CLASS MEETINGS. SENIOR AND JUNIOR CSENG MAJORS WITH APPROPRIATE BACKGROUND, IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>
<b>COMPSCI 490A</b> APPLICATIONS OF NLP  <i>Brendan O'Connor</i>	COMPSCI 220 AND COMPSCI 240, BOTH WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	AN ALTERNATE PREREQUISITE OF LINGUIST 492B IS ACCEPTABLE FOR LINGUISTICS MAJORS; LINGUISTICS STUDENTS WITH PROGRAMMING AND PROBABILITY EXPERIENCE WILL LIKELY BE ADMITTED AND ENCOURAGED TO SUBMIT AN OVERRIDE. STUDENTS FROM OTHER DISCIPLINES WILL BE CONSIDERED AS WELL IF AVAILABLE SEATS. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 491G</b> S-COMPUTER NETWORKING LAB  <i>Parviz Kermani</i>	COMPSCI 453 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	CLASS MEETS IN ASSIGNED ROOM, THE NETWORKING LAB LGRT 224. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 491IP</b> S-PGMG THE IPHONE AND IPAD  <i>Charles Weems</i>	COMPSCI 320 OR 326 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS NEED ACCESS TO AN INTEL PROCESSOR MACHINE (PREFERABLY A LAPTOP FOR USE IN CLASS) RUNNING THE MOST RECENT VERSION OF MACOS, AND WILL BE REQUIRED TO JOIN THE APPLE DEVELOPER PROGRAM TO USE THE NECESSARY SOFTWARE. IF USING A HACKINTOSH, STUDENTS ARE STRONGLY ADVISED TO FIRST CHECK COMPATIBILITY WITH THE DEVELOPMENT KIT AND SIMULATOR. INFORM MAJORS MEETING PREREQUISITE WITH INSTRUCTOR PERMISSION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 497S</b> ST-SCALABLE WEB SYSTEMS  <i>Timothy Richards</i>	COMPSCI 326 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	IT IS RECOMMENDED TO HAVE COMPLETED COMPSCI 220 (PROGRAMMING METHODOLOGY) AND COMPSCI 230 (COMPUTER SYSTEMS PRINCIPLES), OR COMPSCI 377 (OPERATING SYSTEMS), HOWEVER, THIS IS NOT REQUIRED BUT WILL MAKE YOUR EXPERIENCE MORE RICH (E.G., BACKGROUND IN WEB APP DEPLOYMENT, BASIC SECURITY, NETWORK PROTOCOLS, PROCESSES, CLIENT SERVER ARCHITECTURE, AND GENERAL OPERATING SYSTEMS CONCEPTS). STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 503</b> EMBEDDED COMPUTING SYSTEMS  <i>Tauhidur Rahman</i>	UNDERGRADUATES: COMPSCI 383 (OR COMPSCI 403; M&I-ENG 310; M&I-ENG 313; M&I-ENG 397B; E&C-ENG 313; E&C-ENG 323; E&C-ENG 353) WITH A GRADE OF 'C' OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. NO OPTION FOR PASS/FAIL. ATTEND FIRST CLASS MEETING. INSTRUCTOR WILL COMBINE STUDENTS WITH COMPLEMENTARY BACKGROUNDS INTO TEAMS. NON-CS UNDERGRADUATES WHO MEET PREREQUISITE AND MS-EE AND MS-ME STUDENTS ARE ENCOURAGED TO REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 514</b> ALGORITHMS FOR DATA SCIENCE  <i>Cameron Musco</i>	UNDERGRADUATES: COMPSCI 240 AND COMPSCI 311 WITH A GRADE OF B+ OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD IN LECT 02 FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .

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<b>COMPSCI 520</b> THEORY AND PRACTICE-SOFTENGIN  <i>Heather Conboy</i>	UNDERGRADUATES MUST HAVE COMPLETED COMPSCI 320 WITH A GRADE OF C OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD IN LECT 02 FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 529</b> SOFTWARE ENGINEERING PROJ MGMT  <i>Gordon Anderson, David Fisher</i>	COMPSCI 320 WITH A GRADE OF A- OR BETTER.	CS MAJORS ONLY.	MEETS WITH COMPSCI 320. EMAIL INSTRUCTOR FOR PERMISSION TO ENROLL.
<b>COMPSCI 532</b> SYSTEMS FOR DATA SCIENCE  <i>Marco Serafini</i>	UNDERGRADUATES: COMPSCI 311, COMPSCI 345, AND COMPSCI 377, ALL WITH A GRADE OF B OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD IN LECT 02 FOR INCOMING STUDENT REGISTRATION. WAS 590S. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 546</b> APPLIED INFORMATION RETRIEVAL  <i>David Fisher</i>	UNDERGRADUATES: COMPSCI 320 AND COMPSCI 383 (OR COMPSCI 446 OR COMPSCI 585) WITH C OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS SAVED IN LECT 02 FOR INCOMING STUDENT REGISTRATION. WAS COMPSCI 590R. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 563</b> INTERNET LAW AND POLICY  <i>Marvin Cable</i>	UNDERGRADUATE PREREQUISITE: COMPSCI 311 OR COMPSCI 383 OR COMPSCI 460 WITH C OR BETTER.	UNIV LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. UNIV LECT 02: COMPSCI AND ECE GRADUATE STUDENTS ONLY. UWW LECT 01: COMPSCI AND ECE GRADUATE STUDENTS ONLY.	FORMERLY INFOSEC 690L. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>
<b>COMPSCI 575</b> COMBINATORICS AND GRAPH THEORY  <i>David Barrington</i>	UNDERGRADUATES WITH COMPSCI 250 (OR MATH 455) WITH A GRADE OF B OR BETTER.	LECT 01: JUNIOR AND SENIOR UNDERGRADUATES ONLY. LECT 02: MS-CMPSCI GRADUATE STUDENTS ONLY.	CROSS-LISTED WITH MATH 513. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. IF NOT MEETING PREREQUISITES, STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 589</b> MACHINE LEARNING  <i>Madalina Fiterau Brostean</i>	UNDERGRADUATES: COMPSCI 383 AND MATH 235 WITH A GRADE OF C OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 590G</b> GAME PROGRAMMING  <i>Evangelos Kalogerakis</i>	UNDERGRADUATES: COMPSCI 220, COMPSCI 311, AND MATH 235 ALL WITH A GRADE OF C OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD IN LECT 02 FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 590N</b> INTRO NUMRICAL CMPTNG W/PYTHON  <i>Justin Payan</i>		GRADUATE STUDENTS ONLY.	ONLINE OFFERING. COURSE RUNS FOR 6 WEEKS (8/24/20-10/2/20). FAMILIARITY WITH UNDERGRADUATE-LEVEL PROBABILITY, STATISTICS, AND LINEAR ALGEBRA WILL BE ASSUMED. UNDERGRADUATES WHO HAVE COMPLETED COMPSCI 240 AND MATH 235 WITH PERMISSION OF INSTRUCTOR. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .

## SPIRE REGISTRATION INFORMATION for 2020 Fall

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

### CLASS NOTES/COMMENTS INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.

**COMPSCI 590Q**  
QUANTUM INFORMATION SYSTEMS  
*Donald Towsley*

UNDERGRADUATES: MATH 235 WITH A GRADE OF C OR BETTER.

LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY.  
LECT 02: MS-CMPSCI STUDENTS ONLY.

LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. KNOWLEDGE OF QUANTUM MECHANICS IS NOT A PREREQUISITE; QUANTUM CONCEPTS WILL BE INTRODUCED AS NEEDED. BACKGROUND SHOULD INCLUDE FAMILIARITY WITH CALCULUS (MATH 131, 132), KNOWLEDGE OF SOME PROBABILITY AND DISCRETE MATH. KNOWLEDGE OF ALGORITHMS AND COMPLEXITY ARE NOT PREREQUISITES; WILL BE INTRODUCED AS NEEDED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 590T**  
ALGO FAIRNESS STRATEGIC BEHVR  
*Yair Zick*

UNDERGRADUATES: COMPSCI 240 AND COMPSCI 250, BOTH WITH C OR BETTER.

LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY.  
LECT 02: MS-CMPSCI STUDENTS ONLY.

LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. STUDENTS SHOULD BE FAMILIAR WITH BASIC CONCEPTS OF PROBABILITY THEORY (EXPECTATION, THE LAW OF TOTAL PROBABILITY), LINEAR OPTIMIZATION (SYNTAX, WHAT IS A PRIMAL AND A DUAL), AND BASIC ALGEBRA (WHAT IS A VECTOR SPACE). STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 591CF**  
S-CYBERSECURITY LECTURE SERIES  
*Daniel Holcomb, Wayne Burlison, Eric Sommers, Amir Houmansadr*

MEETS WITH ECE 591CF AND MATH 591CF. MAY BE REPEATED FOR CREDIT UP TO 2 TIMES. MANDATORY SATISFACTORY GRADING BASIS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 597N**  
ST-COMPUTER AND NTRWK SECURTY  
*Parviz Kermani*

UWW: MS-CMPSCI AND MS-ECE STUDENTS ONLY.

REGISTRATION FOR UWW SECTION: <https://www.umass.edu/online>.

**COMPSCI 610**  
COMPILER TECHNIQUES  
*J Moss*

COMPSCI GRADUATE STUDENTS ONLY.

SENIOR CS MAJORS MAY TAKE FOR CREDIT IF PREREQUISITES FOR COMPSCI 410 ARE MET WITH PERMISSION OF INSTRUCTOR. MEETS WITH COMPSCI 410. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 611**  
ADVANCED ALGORITHMS  
*Andrew McGregor*

COMPSCI GRADUATE STUDENTS ONLY.

INSTRUCTOR PERMISSION REQUIRED FOR UNDERGRADUATE CS MAJORS CLEARED BY THE UPD, IF AVAILABLE SEATS. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 646**  
INFORMATION RETRIEVAL  
*Razieh Rahimi*

COMPSCI GRADUATE STUDENTS ONLY.

INSTRUCTOR PERMISSION REQUIRED FOR SENIOR CS MAJORS WHO MEET THE PREREQUISITE OF COMPSCI 445 OR 446 WITH A GRADE OF C OR BETTER AND CLEARED BY THE UPD, IF SEATS ARE AVAILABLE. SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 653**  
COMPUTER NETWORKING  
*Arun Venkataramani*

COMPSCI GRADUATE STUDENTS ONLY.

ECE GRADUATE STUDENTS IF AVAILABLE SEATS. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 660**  
ADV INFORMATION ASSURANCE  
*Amir Houmansadr*

COMPSCI GRADUATE STUDENTS ONLY.

INSTRUCTOR PERMISSION REQUIRED FOR UNDERGRADUATE CS MAJORS WHO MEET THE PREREQUISITE OF COMPSCI 460 OR COMPSCI 466, OR EQUIVALENT AND CLEARED BY THE UPD, IF AVAILABLE SEATS. NON-CS STUDENTS BY PERMISSION OF INSTRUCTOR. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

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PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<p><b>COMPSCI 661</b> SECURE DISTRIBUTED SYSTEMS <i>Gregory Stone</i></p>	<p>UNIV LECT 01: COMPSCI GRADUATE STUDENTS ONLY. UWW LECT 01: COMPSCI AND ECE GRADUATE STUDENTS ONLY.</p>	<p>COURSE PREVIOUSLY COMPSCI 690P. THE COURSE IS BASED ON A FLIPPED CLASSROOM. MUCH OF THE COURSE CONTENT IS DELIVERED ONLINE AND STUDENTS ARE EXPECTED TO VIEW OR READ THESE MATERIALS AHEAD OF CLASS MEETINGS IN PREPARATION FOR DISCUSSION. PHYSICAL ATTENDANCE IS REQUIRED FOR IN-PERSON SECTIONS. REGISTRATION FOR UNIV SECTION IS OPEN TO CS GRADS (CICS RA OR TA CONTRACTED). STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>. UWW LECTURE 01 IN-PERSON. REGISTRATION FOR UWW SECTION: <a href="https://www.umass.edu/online">https://www.umass.edu/online</a></p>
<p><b>COMPSCI 670</b> COMPUTER VISION <i>Subhransu Maji</i></p>	<p>COMPSCI GRADUATE STUDENTS ONLY.</p>	<p>PREREQUISITES ARE LINEAR ALGEBRA, CALCULUS 1 AND 2, MULTI-VARIATE CALCULUS OR PERMISSION OF INSTRUCTOR. STATS 515 OR PERMISSION OF INSTRUCTOR. ADVANCED UNDERGRADUATES WITH PERMISSION OF INSTRUCTOR. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 682</b> NEURAL NETWORKS:MODERN INTRO <i>Erik Learned-Miller</i></p>	<p>GRADUATE STUDENTS ONLY.</p>	<p>PREREQUISITES: BASIC FAMILIARITY WITH AI/COGNITIVE SCIENCE/MACHINE LEARNING. BASIC KNOWLEDGE OF GRADIENT-BASED OPTIMIZATION. MULTIVARIATE CALCULUS, LINEAR ALGEBRA, ALGORITHMIC ANALYSIS, PROBABILITY/STATISTICS, PROGRAMMING IN PYTHON OR EQUIVALENT HIGH LEVEL LANGUAGE. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 685</b> ADV NATURAL LANG PROCESSING <i>Mohit Iyyer</i></p>	<p>COMPSCI GRADUATE STUDENTS ONLY.</p>	<p>WAS COMPSCI 690N. PHD-LING STUDENTS WITH PERMISSION OF INSTRUCTOR. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 687</b> REINFORCEMENT LEARNING <i>Philip Thomas</i></p>	<p>COMPSCI GRADUATE STUDENTS ONLY.</p>	<p>A BACKGROUND IN MACHINE LEARNING (COMPSCI 589 AND COMPSCI 689) AND ARTIFICIAL INTELLIGENCE (COMPSCI 683) ARE ASSUMED. FAMILIARITY WITH AN OBJECT ORIENTED PROGRAMMING LANGUAGE IS REQUIRED. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 689</b> MACHINE LEARNING <i>Benjamin Marlin</i></p>	<p>COMPSCI GRADUATE STUDENTS ONLY.</p>	<p>PERMISSION OF INSTRUCTOR FOR CS MAJORS MEETING THE PREREQUISITE OF MATH 132 AND MATH 235, AND EITHER STATISTICS 515 OR 607 OR 608, IF CLEARED BY THE UPD AND AVAILABLE SEATS. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 690C</b> FOUNDATNS-APPLD CRYPTOGRAPHY <i>Adam O'Neill</i></p>	<p>COMPSCI GRADUATE STUDENTS ONLY.</p>	<p>MATHEMATICAL MATURITY, BEING COMFORTABLE READING AND WRITING MATHEMATICAL PROOFS. SEATS SAVED FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 6910</b> S-TOOLS-EXPLANATORY/TUTRNG SYS <i>Beverly Woolf</i></p>	<p>GRADUATE STUDENTS ONLY.</p>	<p>STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 692S</b> S-SYSTMS FOR ML, ML FOR SYSTMS <i>Hui Guan</i></p>	<p>COMPSCI GRADUATE STUDENTS ONLY.</p>	<p>SECT 01=3 CR; SECT 02=1 CR. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>

**SPIRE REGISTRATION INFORMATION for 2020 Fall**

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<p><b>COMPSCI 698W</b> P-CS RESRCH WRITNG PRACTICUM  <i>Justin Obara</i></p>	COMPSCI PHD STUDENTS ONLY.	MAY BE REPEATED FOR CREDIT ONCE. SECT 01 (8/24-9/30/20); SECT 02 (10/12-11/18/20). STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<p><b>COMPSCI 701</b> ADV TOPICS IN CMPSCI</p>	DOCTORAL, MASTERS CMPSCI GRADUATE STUDENTS ONLY.	THE 3 CREDIT OPTION IS FOR THE SECOND SEMESTER OF A TWO-SEMESTER SEQUENCE, 701Y FOLLOWED BY 701. THE 6 CREDIT OPTION IS FOR A PROJECT THAT WILL BE BEGUN AND COMPLETED WITHIN THE SAME SEMESTER. REQUEST OVERRIDE VIA THE SPECIAL ON-LINE FORM: <a href="https://www.cics.umass.edu/content/registration">https://www.cics.umass.edu/content/registration</a>
<p><b>COMPSCI 701Y</b> ADV TOPICS IN CMPSCI (1ST SEM)</p>	DOCTORAL, MASTERS CMPSCI GRADUATE STUDENTS ONLY.	INDICATES THE FIRST SEMESTER OF A TWO-SEMESTER SEQUENCE, 701Y (3 CREDITS) FOLLOWED BY 701 (3 CREDITS), WITH GRADE FOR BOTH ASSIGNED AT THE END. REQUEST OVERRIDE VIA THE SPECIAL ON-LINE FORM: <a href="https://www.cics.umass.edu/content/registration">https://www.cics.umass.edu/content/registration</a>
<p><b>COMPSCI 890T</b> TEACH ASSTS-TOMORROW'S FACULTY  <i>Ivon Arroyo</i></p>		COURSE IS ASSOCIATED WITH CICS TA EMPLOYMENT. REQUIRED COMPONENT OF TA CONTRACT. REGISTRATION WILL BE PROCESSED BY GRADUATE PROGRAM MANAGER AFTER SIGNED AND APPROVED CONTRACT. OPEN TO CICS TEACHING ASSISTANTS ONLY.
<p><b>COMPSCI 891M</b> S-THEORY OF COMPUTATION  <i>Cameron Musco</i></p>	DOCTORAL, MASTERS GRADUATE STUDENTS ONLY.	MAY BE REPEATED FOR CREDIT UP TO 6 TIMES. OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<p><b>COMPSCI 899</b> PHD DISSERTATION</p>		<i>COURSE OPEN ONLY TO CS GRADUATE STUDENTS WHO HAVE PASSED PORTFOLIO. REQUEST OVERRIDE VIA THE SPECIAL ON-LINE FORM: <a href="https://www.cics.umass.edu/content/registration">https://www.cics.umass.edu/content/registration</a></i>
<p><b>COMPSCI H250</b> HNRS COLLOQ: INTRO COMPUTATION  <i>Marius Minea</i></p>	<b>COMPSCI 187 AND MATH 132 WITH A GRADE OF C OR BETTER (OR COMPSCI 250 WITH A GRADE OF B OR BETTER).</b>	COMMONWEALTH HONORS COLLEGE CS AND MATH MAJORS ONLY.
<p><b>COMPSCI H320</b> HNRS COLLOQ: SOFTW ENGINEERING  <i>David Fisher</i></p>	<b>COMPSCI 220 WITH A GRADE OF C OR BETTER (OR COMPSCI 320 WITH A GRADE OF B OR BETTER).</b>	COMMONWEALTH HONORS COLLEGE JUNIOR AND SENIOR CS MAJORS ONLY.
<p><b>COMPSCI H589</b> HNRS COLLOQ: MACHINE LEARNING  <i>Madalina Fiterau Brostean</i></p>	<b>COMPSCI 383 AND MATH 235 WITH A GRADE OF C OR BETTER (OR COMPSCI 589 WITH A GRADE OF B OR BETTER).</b>	COMMONWEALTH HONORS COLLEGE JUNIOR AND SENIOR CS MAJORS ONLY.



## SPIRE REGISTRATION INFORMATION for 2020 Fall

### PREREQUISITES

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**INFO 101**  
INTRO TO INFORMATICS

*Michelle Trim*

UNDERGRADUATE NON-CS MAJORS ONLY.

CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. FOUNDATIONS COURSE FOR THE INFORMATICS MAJOR. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**INFO 150**  
MATH FOUND-INFORMATICS

*Peter Haas*

INFORM MAJORS ONLY.

CS AND MATH/STATS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. R1 MATH USEFUL; NOT ABSOLUTELY REQUIRED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**INFO 203**  
A NETWORKED WORLD

*Mohammadhassan Hajjesmaili*

UNDERGRADUATE NON-CS MAJORS ONLY.

STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.