

## SPIRE REGISTRATION INFORMATION for 2022 Spring

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

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

<p><b>CICS 197R</b> ST-INTRO TO DATA ANALYSIS IN R <i>Jasper Mcchesney</i></p>		<p>FRESHMEN AND SOPHOMORE NON-COMPSCI MAJORS ONLY.</p>	<p>COURSE RUNS FOR 6 WEEKS (1/25/22 - 3/8/22: 1/25, 1/27, 2/1, 2/3, 2/8, 2/10, 2/15, 2/17, 2/24, 3/1, 3/3, 3/8). 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>CICS 256</b> MAKE: PHYSICAL COMPUTING <i>Donghyun Kim</i></p>	<p>COMPSCI 187 WITH A GRADE OF 'C' OR BETTER AND BASIC MATH SKILLS (R1).</p>	<p>BS-CS MAJORS ONLY.</p>	<p>NO OPTION FOR PASS/FAIL. THIS COURSE HAS A REQUIRED LAB SECTION AND COUNTS TOWARD THE CS LAB SCIENCE REQUIREMENT FOR THE BS-CS. THIS OFFERING IS OPEN TO SOPHOMORE AND FRESHMAN BS-CS MAJORS ONLY. JUNIORS MAY BE CONSIDERED 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>.</p>
<p><b>CICS 291S</b> S-CICS SECOND YEAR PATHWAYS <i>Emma Anderson</i></p>	<p>COMPSCI 187 WITH A GRADE OF C OR BETTER.</p>	<p>SOPHOMORE CS MAJORS ONLY.</p>	<p>CS MAJORS MUST EITHER HAVE TAKEN/ARE TAKING AT LEAST ONE CS 200-LEVEL CORE TO BE ELIGIBLE. NON-CS MAJORS WHO HAVE TAKEN/ARE TAKING AT LEAST 2 200-LEVEL CS CORE WILL BE CONSIDERED IF AVAILABLE SEATS. THIS COURSE IS INTENDED FOR STUDENTS IN THEIR 3RD OR 4TH SEMESTER AT UMASS. INTERESTED STUDENTS SHOULD COMPLETE THE ONLINE FORM: <a href="https://forms.gle/3RsgkVzEtPKoqnUj6">https://forms.gle/3RsgkVzEtPKoqnUj6</a></p>
<p><b>CICS 291T</b> S-CICS TRANSFER SUCCESS <i>Jason Valladares</i></p>			<p>FOR FALL 2021, REGISTRATION AVAILABLE AFTER NEW STUDENT ORIENTATION DUE TO COURSE BEING ADDED CLOSER TO CLASS START. DEPARTMENT CONSENT REQUIRED: OPEN TO INCOMING CS AND INFORM TRANSFER STUDENTS ONLY.</p>
<p><b>CICS 298A</b> P-LEADRSHP:COMMUNCTNG-EXPTISE <i>Emma Anderson</i></p>	<p>COMPSCI 186 OR COMPSCI 187 WITH A GRADE OF C OR BETTER.</p>	<p>FRESHMEN, SOPHOMORE, JUNIOR COMPUTER SCIENCE AND INFORMATICS MAJORS ONLY.</p>	<p>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: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>CICS 305</b> SOC ISS IN CMPTNG <i>Elena Kalodner-Martin, Siobhan Mei, Justin Obara, Michelle Trim</i></p>	<p>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.</p>	<p>ODD LECTS: SENIOR AND JUNIOR CS MAJORS ONLY. RESTRICTED TO CS PRIMARY MAJORS. EVEN LECTS: SENIOR AND JUNIOR INFORMATICS MAJORS ONLY. RESTRICTED TO INFORMATICS PRIMARY MAJORS.</p>	<p>SATISFIES JUNIOR YEAR WRITING REQUIREMENT. ODD LECTURES FOR CS MAJORS; EVEN LECTURES FOR INFORM MAJORS. ELIGIBILITY LIMITED TO CS OR INFORMATICS PRIMARY MAJORS ONLY. CS OR INFORMATICS SECONDARY MAJOR MUST TAKE JUNIOR YEAR WRITING COURSE WITHIN PRIMARY MAJOR DEPARTMENT. LECT 01-02 MEET TOGETHER; LECT 03-04...LECT 13-14. SPIRE WILL ONLY RECOGNIZE THE ENGLWRIT112 PREREQUISITE WHEN TAKEN AT UMASS AMHERST. JUNIOR AND SENIOR CS AND INFORM MAJORS WITH AP CREDIT, TRANSFER CREDIT, OR A WAIVER FOR ENGLWRIT112 WHO MEET THE OTHER STATED PREREQUISITES WILL NEED ASSISTANCE TO ENROLL VIA THE OVERRIDE FORM FOR CICS 305: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>CICS 490E</b> EMBER INTRO TO RES METH CMPTNG <i>Michelle Trim</i></p>	<p>COMPSCI 186 OR COMPSCI 187 WITH A GRADE OF C OR BETTER.</p>	<p>CS AND INFORM MAJORS ONLY.</p>	<p>INSTRUCTOR CONSENT REQUIRED. OPEN TO MHC STUDENTS. THIS COURSE WILL MEET ONCE A WEEK FOR ONE HOUR, AND EACH HOUR WILL HAVE ONE WORKSHOP TOPIC. TO EXPRESS YOUR INTEREST TO ENROLL IN THIS 1-CREDIT RESEARCH EXPERIENCE COURSE, PLEASE FILL OUT THIS FORM: <a href="https://forms.gle/M4zoScpVnRPUSGF6">https://forms.gle/M4zoScpVnRPUSGF6</a>.</p>
<p><b>COMPSCI 119</b> INTRO PROGRAMMING <i>William Verts</i></p>		<p>NON-CS MAJORS ONLY.</p>	<p>CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. AFTER SOPHOMORE AND FRESHMEN STUDENTS REGISTER, 119 MAY OPEN TO ALL UNDERGRADUATES 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>.</p>
<p><b>COMPSCI 121</b> PROBLEM SOLVING W/COMPUTERS <i>Eduardo Calle Ortiz, Jaime Davila, Peter Klemperer, Adam Kohan, Spencer Lane, Ghazaleh Parvini, Emily Pruc, Cole Reilly</i></p>	<p>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&amp;102 OR MATH 104 OR MATH 127 OR MATH 128 OR MATH 131 OR MATH 132.</p>	<p>FRESHMEN AND SOPHOMORE UNDERGRADUATE STUDENTS ONLY.</p>	<p>INTENDED FOR CS AND INFORM MAJORS OR THOSE APPLYING TO THESE MAJORS. NON-MAJORS MAY OPT TO TAKE COMPSCI 119 (OR COMPSCI 190F). 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: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>

## SPIRE REGISTRATION INFORMATION for 2022 Spring

	<u>PREREQUISITES</u>	<u>ELIGIBILITY RESTRICTIONS</u>	<u>CLASS NOTES/COMMENTS</u> <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<b>COMPSCI 145</b> <i>REP, STORNG&amp;RET INFO</i> <i>William Verts</i>	R1 GEN ED COMPLETED.	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: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 186</b> <i>USING DATA STRUCTURES</i> <i>Marc Liberatore</i>	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.	UNDERGRADUATES 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 187</b> <i>PROGRAMMING W/DATA STRCTRS</i> <i>Meng-Chieh Chiu, Neena Thota</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 AND CICS-ET 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 198C</b> <i>P-INTRO-C PROGRAMMING LANGUAGE</i> <i>Meng-Chieh Chiu, J Moss, Timothy Richards</i>	COMPSCI 121 WITH A GRADE OF B OR BETTER (OR COMPSCI 186 (OR COMPSCI 190D) WITH A GRADE OF C OR BETTER).	FRESHMEN, SOPHOMORES, AND JUNIORS UNDERGRADUATES ONLY.	IT IS RECOMMENDED THAT STUDENTS TAKE COMPSCI 198C BEFORE TAKING COMPSCI 230. 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 220</b> <i>PGMG METHODOLOGY</i> <i>Jaime Davila, Marius Minea</i>	COMPSCI 187 WITH A GRADE OF 'C' OR BETTER.	CS MAJORS ONLY.	STUDENTS MAY ONLY TAKE ONE OF 220 AND 230 IN THE SAME SEMESTER. THE UPC WILL DROP STUDENTS ENROLLED IN BOTH FROM ONE OF THE TWO COURSES. CS MINORS, CS APPLICANTS, 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> <i>CMPTR SYS PRINC</i> <i>Meng-Chieh Chiu</i>	COMPSCI 187 WITH A GRADE OF 'C' OR BETTER.	CS MAJORS ONLY.	STUDENTS MAY ONLY TAKE ONE OF 220 AND 230 IN THE SAME SEMESTER. THE UPC WILL DROP STUDENTS ENROLLED IN BOTH FROM ONE OF THE TWO COURSES. IT IS RECOMMENDED THAT STUDENTS TAKE COMPSCI 198C BEFORE TAKING COMPSCI 230. CS MINORS, CS APPLICANTS, 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> <i>RSNG UNDER UNCERTAINTY</i> <i>Shiting Lan</i>	COMPSCI 187 AND MATH 132 WITH A GRADE OF 'C' OR BETTER.	CS MAJORS ONLY.	STUDENTS MAY ONLY TAKE ONE OF 240 AND 250 IN THE SAME SEMESTER. THE UPC WILL DROP STUDENTS ENROLLED IN BOTH FROM ONE OF THE TWO COURSES. CS MINORS, CS APPLICANTS, 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> <i>INTRO TO COMPUTATION</i> <i>Ghazaleh Parvini</i>	COMPSCI 187 (OR ECE 241) AND MATH 132, BOTH WITH A GRADE OF C OR BETTER.	CS, CSENG, AND MATH MAJORS ONLY.	STUDENTS MAY ONLY TAKE ONE OF 240 AND 250 IN THE SAME SEMESTER. THE UPC WILL DROP STUDENTS ENROLLED IN BOTH FROM ONE OF THE TWO COURSES. CS MINORS, CS APPLICANTS, 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> <i>INTRO TO ALGORITHMS</i> <i>Md Abdul Aowal, Marius Minea</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> .

## SPIRE REGISTRATION INFORMATION for 2022 Spring

	<u>PREREQUISITES</u>	<u>ELIGIBILITY RESTRICTIONS</u>	<u>CLASS NOTES/COMMENTS</u> <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<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> .
<b>COMPSCI 325</b> INTRO TO HUMAN CMPTR INTERACTN <i>Cheryl Swanier</i>	COMPSCI 186 (OR COMPSCI 187) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	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. A PREREQUISITE OF COMPSCI 186 (OR COMPSCI 187) WITH A C OR BETTER HAS BEEN APPROVED BY THE FACULTY SENATE FOR FALL 2021. 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 326</b> WEB PROGRAMMING <i>Timothy Richards</i>	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.	JUNIOR AND SENIOR CS AND INFORMATICS MAJORS ONLY.	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> .
<b>COMPSCI 345</b> PRACT & APPLICS OF DATA MGMT <i>Jaime Davila</i>	COMPSCI 187 (OR INFO 248 AND COMPSCI 186) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORMATICS MAJORS ONLY.	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. RESERVED SEATS: 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> .
<b>COMPSCI 348</b> PRINCIPLES OF DATA SCIENCE <i>David Jensen</i>	COMPSCI 187, COMPSCI 240, AND COMPSCI 250 (OR MATH 455), ALL 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 365</b> DIGITAL FORENSICS <i>Brian Levine</i>	COMPSCI 230 WITH A GRADE OF C OR BETTER.	SOPHOMORE, JUNIOR AND SENIOR CS AND INFORM 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 373</b> INTRO TO COMPUTER GRAPHICS <i>Rui Wang</i>	COMPSCI 187 AND MATH 235 (OR INFO 150 OR COMPSCI 240) BOTH WITH A GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS WHO HAVE TAKEN COMPSCI 473 ARE NOT ELIGIBLE. STUDENTS WHO HAVE TAKEN 373 CANNOT TAKE COMPSCI 497C SPECIAL TOPICS IN COMPUTER GRAPHICS. 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 377</b> OPERATING SYSTEMS <i>Timothy Richards</i>	COMPSCI 230 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 383</b> ARTIFICIAL INTELLIGENCE <i>Matthew Rattigan</i>	COMPSCI 220 (OR COMPSCI 230) AND COMPSCI 240 (OR STAT 515), BOTH 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> .

## SPIRE REGISTRATION INFORMATION for 2022 Spring

	<u>PREREQUISITES</u>	<u>ELIGIBILITY RESTRICTIONS</u>	<u>CLASS NOTES/COMMENTS</u> <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<b>COMPSCI 389</b> INTRO TO MACHINE LEARNING  <i>Cooper Sigrist, Philip Thomas</i>	COMPSCI 220 (OR COMPSCI 230), COMPSCI 240 (OR STATISC 515), AND MATH 233 ALL WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	PREVIOUSLY COMPSCI 390A. 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> .
<b>COMPSCI 390R</b> REV ENGG AND VULNERABLT Y ANALY  <i>Brian Levine, Corre Steele</i>	COMPSCI 230 (OR E&C-ENG 322 OR E&C-ENG 373) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	THIS COURSE IS FOCUSED ON LOW-LEVEL SOFTWARE WRITTEN IN C. AN UNDERSTANDING OF THE TOPICS COVERED IN COMPSCI 230 IS REQUIRED. ALTHOUGH OPEN TO INFORM MAJORS, THIS COURSE DOES NOT COUNT AS AN INFORM ELECTIVE. JUNIOR AND SENIOR CSENG MAJORS WHO MEET PREREQUISITE WILL BE CONSIDERED IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="http://www.cics.umass.edu/overrides">http://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 398A</b> P-CREDITED INTERNSHIP			CICS CAREERS AND INSTRUCTOR PERMISSION REQUIRED.
<b>COMPSCI 410</b> COMPILER TECHNIQUES  <i>Hui Guan</i>	COMPSCI 230 AND COMPSCI 250 (OR MATH 455), BOTH WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	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> .
<b>COMPSCI 420</b> SOFTWARE ENTREPRENEURSHIP  <i>Neena Thota</i>	COMPSCI 326 (OR COMPSCI 320) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	PREVIOUSLY COMPSCI 490S. 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 445</b> INFORMATION SYSTEMS  <i>Marco Serafini</i>	<b>COMPSCI 220 (OR COMPSCI 230) AND COMPSCI 311 AND COMPSCI 345, ALL WITH GRADE OF 'C' OR BETTER.</b>	JUNIOR AND SENIOR CS MAJORS ONLY.	IF AVAILABLE SEATS, STUDENTS WHO ARE NOT CS MAJORS BUT HAVE SUFFICIENT PROGRAMMING EXPERIENCE, CS GRADUATE STUDENTS, 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 446</b> SEARCH ENGINES  <i>David Fisher</i>	COMPSCI 240 OR COMPSCI 383 WITH A GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	INSTRUCTOR WILL CONSIDER STAT515 AS AN ALTERNATE PREREQUISITE IN PLACE OF COMPSCI 240 VIA OVERRIDE. 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 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.	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 466</b> APPLIED CRYPTOGRAPHY  <i>Adam O'Neill</i>	COMPSCI 311 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS WHO HAVE TAKEN HIGHER-LEVEL MATHEMATICS (IN PARTICULAR MATH 411, MATH 455, MATH 471, OR MATH 513/COMPSCI 575) ARE PARTICULARLY INVITED TO ENROLL. 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 2022 Spring

	<u>PREREQUISITES</u>	<u>ELIGIBILITY RESTRICTIONS</u>	<u>CLASS NOTES/COMMENTS</u> <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<b>COMPSCI 490U</b> INTRO TO UX RESEARCH <i>Aimen Gaba, Ya Xiong</i>	COMPSCI 325 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM 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 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 501</b> FORMAL LANGUAGE THEORY <i>David Barrington</i>	UNDERGRADUATES: COMPSCI 311 WITH A GRADE OF 'C' OR BETTER.	LECT 01: JUNIOR AND SENIOR CS AND MATH MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. IT IS RECOMMENDED THAT UNDERGRADUATE STUDENTS HAVE A B- OR BETTER IN COMPSCI 311 IN ORDER TO ATTEMPT 501. 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> .
<b>COMPSCI 508</b> ETHICAL CONSIDRTNS IN COMPUTNG <i>Michelle Trim</i>		Open to MS-CMPSCI and CS PhD students.	PREVIOUSLY COMPSCI 590E. SEATS HELD 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 514</b> ALGORITHMS FOR DATA SCIENCE <i>Andrew McGregor</i>	UNDERGRADUATES: COMPSCI 240 (OR STATISTICS 515) AND COMPSCI 311 BOTH WITH A GRADE OF B+ OR BETTER (OR COMPSCI 240, STATISTICS 515, COMPSCI 311, MATH 233, 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 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 520</b> THEORY AND PRACTICE-SOFTENGIN <i>Heather Conboy</i>	UNDERGRADUATES: 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 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 528</b> MOBILE AND UBIQ COMPUTING <i>Tauhidur Rahman</i>	UNDERGRADUATES: COMPSCI 230 AND COMPSCI 240 WITH A GRADE OF C OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS. LECT 02: MS-CMPSCI STUDENTS ONLY.	PREVIOUSLY COMPSCI 590U. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD IN LECT 02 FOR INCOMING GRAD STUDENT REGISTRATION. SOME BACKGROUND IN MACHINE LEARNING, SIGNAL PROCESSING, EMBEDDED SYSTEMS, PHYSICAL COMPUTING IS HELPFUL. INSTRUCTOR PERMISSION FOR STUDENTS WITH ALTERNATE PREREQUISITES. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ONLINE 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>Peter Klemperer</i>	<b>PREREQUISITE CHANGE, EFFECTIVE FALL 2022:</b> <b>FROM: UNDERGRADUATES: COMPSCI 311, COMPSCI 345, AND COMPSCI 377, ALL WITH A GRADE OF B OR BETTER.</b> <b>TO: UNDERGRADUATES: COMPSCI 377 AND COMPSCI 445 WITH A GRADE OF C OR BETTER.</b>	LECT 01: NO UNDERGRADUATE OFFERING SPRING 2022. LECT 02: MS-CMPSCI STUDENTS ONLY. UWW LECT 01: GRADUATE STUDENTS ONLY.	<b>PHD OR OTHER GRADUATE LEVEL STUDENTS WHO NEED A UNIVERSITY COURSE SHOULD REGISTER IN SECTION 02. ONLINE MS IN CS OR OTHER GRADUATE STUDENTS SHOULD REGISTER IN THE UWW SECTION 01. SEATS HELD FOR INCOMING STUDENT REGISTRATION. COURSE IS ONLINE, SYNCHRONOUS LECTURES ON MW, 4-5:15 PM ARE AVAILABLE. LECTURES WILL BE RECORDED FOR VIEWING AT OTHER TIMES. 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>

## SPIRE REGISTRATION INFORMATION for 2022 Spring

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

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

<p><b>COMPSCI 546</b> APPLIED INFORMATION RETRIEVAL <i>Hamed Zamani</i></p>	<p>UNDERGRADUATES: COMPSCI 320 AND COMPSCI 383 (OR COMPSCI 446 OR COMPSCI 585) WITH C OR BETTER.</p>	<p>LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.</p>	<p>LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS SAVED 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>.</p>
<p><b>COMPSCI 550</b> INTRODUCTION TO SIMULATION <i>Peter Haas</i></p>	<p>UNDERGRADUATES: COMPSCI 187 AND STATISTC 515 WITH A GRADE OF C OR BETTER.</p>	<p>LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI GRAD STUDENTS ONLY.</p>	<p>PREVIOUSLY COMPSCI 590M. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD IN LECT 02 FOR INCOMING GRAD STUDENTS. SOME BACKGROUND IN STOCHASTIC PROCESSES IS HELPFUL, BUT NOT REQUIRED, AS THE MATERIAL WILL BE DEVELOPED IN CLASS. INSTRUCTOR PERMISSION REQUIRED FOR UNDERGRADUATE IE MAJORS MEETING PREREQUISITES AND GRADUATE IE STUDENTS. 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 561</b> SYSTEM DEFENSE AND TEST <i>Parviz Kermani</i></p>	<p>UNDERGRADUATES: COMPSCI 460 (OR COMPSCI 560 OR COMPSCI 660) AND COMPSCI 453, BOTH WITH A GRADE OF C OR BETTER.</p>	<p>UNIV LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. UNIV LECT 02: MS-CMPSCI AND MS-ECE STUDENTS ONLY. UWW LECT 01: ONLINE MS-CMPSCI STUDENTS ONLY.</p>	<p>WAS COMPSCI 590A. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. MS-ECE STUDENTS MAY ENROLL IN THE UNIVERSITY -02 SECTION BUT NOT THE UWW SECTION. THE FACULTY SENATE HAS APPROVED AN UNDERGRADUATE PREREQUISITE CHANGE FOR THE SPRING 2022 OFFERING, REQUIRING COMPSCI 453 WITH A GRADE OF C OR BETTER IN ADDITION TO THE CURRENT PREREQUISITE. CSENG MAJORS WITH APPROPRIATE BACKGROUND WITH INSTRUCTOR PERMISSION, 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>.</p>
<p><b>COMPSCI 571</b> DATA VISUALIZATION&amp;EXPLORATION <i>Ali Sarvghad Batn Moghaddam</i></p>	<p>UNDERGRADUATES: COMPSCI 220 (OR COMPSCI 230 OR COMPSCI 326), WITH A GRADE OF C OR BETTER.</p>	<p>LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.</p>	<p>UWW LECT 01: ONLINE COURSE FOR GRADUATE STUDENTS ONLY. GRADUATE STUDENTS FROM OTHER DEPARTMENTS WITH INSTRUCTOR PERMISSION, IF AVAILABLE SEATS. REGISTRATION FOR UWW SECTION: <a href="https://www.umass.edu/online/how-enroll">https://www.umass.edu/online/how-enroll</a></p>
<p><b>COMPSCI 571</b> DATA VISUALIZATION&amp;EXPLORATION <i>Ali Sarvghad Batn Moghaddam</i></p>	<p>UNDERGRADUATES: COMPSCI 220 (OR COMPSCI 230 OR COMPSCI 326), WITH A GRADE OF C OR BETTER.</p>	<p>LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.</p>	<p>PREVIOUSLY COMPSCI 590V. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD IN LECT 01 FOR JUNIOR AND SENIOR INFORM MAJORS AND IN LECT 02 FOR INCOMING GRAD STUDENT REGISTRATION. A PROPOSAL HAS BEEN SUBMITTED TO THE FACULTY SENATE TO CHANGE THE PREREQUISITE TO C OR BETTER IN COMPSCI 220 (OR COMPSCI 230 OR COMPSCI 326) AND STUDENTS WILL BE CONSIDERED, 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>.</p>
<p><b>COMPSCI 574</b> INTELLIGENT VISUAL COMPUTING <i>Evangelos Kalogerakis</i></p>	<p>UNDERGRADUATES: COMPSCI 311, COMPSCI 383, COMPSCI 373 (OR COMPSCI 473), ALL WITH A GRADE OF B OR BETTER.</p>	<p>LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.</p>	<p>PREVIOUSLY COMPSCI 590IV. MEETS WITH COMPSCI 674. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS SAVED IN LECT 02 FOR INCOMING GRAD STUDENT REGISTRATION. INSTRUCTOR WILL CONSIDER UNDERGRADUATES WITH ALTERNATE PREREQUISITES OF COMPSCI 589 OR COMPSCI 682 IN PLACE OF COMPSCI 373(473), IF AVAILIABLE 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>.</p>
<p><b>COMPSCI 575</b> COMBINATORICS AND GRAPH THEORY <i>Alejandro Henry Morales Borrero</i></p>	<p>UNDERGRADUATES WITH COMPSCI 250 (OR MATH 455) WITH A GRADE OF B OR BETTER.</p>	<p>LECT 01: JUNIOR AND SENIOR UNDERGRADUATES ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.</p>	<p>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>.</p>
<p><b>COMPSCI 589</b> MACHINE LEARNING <i>Bruno Castro da Silva</i></p>	<p>UNDERGRADUATES: [ MATH 545 AND STATISTCS 515 AND COMPSCI 240, ALL WITH A GRADE OF C OR BETTER. ] OR [ MATH 545 WITH A GRADE OF C OR BETTER AND COMPSCI 240 WITH A GRADE OF B+ OR BETTER. ] OR [ MATH 235 AND MATH 233, BOTH WITH A GRADE OF B+ OR BETTER, AND STATISTCS 515 AND COMPSCI 240, BOTH WITH A GRADE OF C OR BETTER. ] OR [ MATH 235 AND MATH 233 AND COMPSCI 240, ALL WITH A GRADE OF B+ OR BETTER. ]</p>	<p>LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.</p>	<p>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>.</p>

## SPIRE REGISTRATION INFORMATION for 2022 Spring

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

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

**COMPSCI 590J**  
CYBER EFFECTS  
  
*Seth Landsman, Nicholas Merlino, Daniel Walters, Edward Walters, Adam Woodbury*

UNDERGRADUATES: COMPSCI 230 (OR ECE 322) AND COMPSCI 460 (OR ECE 371) BOTH WITH A GRADE OF C OR BETTER.

LECT 01: JUNIORS AND SENIORS ONLY.  
LECT 02: MS-CMPSCI AND MS-ECE STUDENTS ONLY.  
UWW LECT 01: ONLINE CMPSCI MASTERS STUDENTS ONLY.

LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. UNDERGRADS MAY SUBSTITUTE ANY INTRODUCTION TO COMPUTER/NETWORK SECURITY COURSE AT THE 300-LEVEL OR HIGHER WITH A GRADE OF C OR BETTER FOR ECE 371, WITH PERMISSION OF INSTRUCTOR. SEATS HELD IN LECT 02 FOR INCOMING STUDENT REGISTRATION. MS-ECE STUDENTS ONLY ELIGIBLE FOR UNIV. -02 SECTION, NOT UWW SECTION. OTHER GRADUATE STUDENTS WITH PERMISSION OF INSTRUCTOR. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

UWW LECT 01: OTHER GRADUATE STUDENTS WITH PERMISSION OF INSTRUCTOR.

**COMPSCI 590K**  
ADV DIGITAL FORENSIC SYSTEMS  
  
*Marc Liberatore*

UNDERGRADUATES: COMPSCI 365 OR 377 WITH A GRADE OF C OR BETTER.

UNIV LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY.  
UNIV LECT 02: MS-CMPSCI AND MS-ECE STUDENTS ONLY.  
UWW LECT 01: ONLINE MS-CMPSCI STUDENTS ONLY.

STUDENTS WHO HAVE COMPLETED COMPSCI 590F ARE NOT ELIGIBLE FOR THIS COURSE. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. CLASS IS ONLINE. MOODLE WILL BE USED AND ECHO360 FOR LECTURE VIDEO DISTRIBUTION. SENIOR AND JUNIOR CSENG MAJORS WITH APPROPRIATE BACKGROUND WITH INSTRUCTOR PERMISSION, IF AVAILABLE SEATS. MS-ECE STUDENTS MAY ENROLL IN UNIV. -02 SECTION, BUT NOT UWW SECTION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 590L**  
MAKING PREDICTIONS  
  
*Justin Domke*

COMPSCI 240 OR STATISTICS 515 WITH A GRADE OF C OR BETTER.

MT IDA LECT 01: GRADUATE STUDENTS ONLY.  
UWW LECT 01: GRADUATE STUDENTS ONLY.

OPEN TO GRADUATE STUDENTS. NO FORMAL PREREQUISITES. INFORMALLY, STUDENTS SHOULD BE FAMILIAR WITH CALCULUS (E.G. MATH 131, 132) AND BASIC PROBABILITY THEORY.

**COMPSCI 590W**  
HEALTH INFORMATICS/DATA SCI  
  
*Sunghoon Lee, Anthony Nunes*

COMPSCI 240 OR STATISTICS 515 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. THIS COURSE COUNTS AS A CS ELECTIVE FOR THE CS MAJOR (BA OR BS). COMPSCI 590W WILL NOT COUNT TOWARD THE INFORMATICS MAJOR. INFORMATICS MAJORS SHOULD ENROLL IN INFO 390W. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <http://www.cics.umass.edu/overrides>

**COMPSCI 591NR**  
S-NEURAL NETWORKS:NEUROSC/ENGG  
  
*Hava Siegelmann*

UNDERGRADUATES: COMPSCI 311 WITH A GRADE OF C OR BETTER.

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

LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. MEETS WITH COMPSCI 691NR. UNDERGRADUATE COURSE IN ALGORITHMS EQUIVALENT TO COMPSCI 311 IS ASSUMED FOR GRADUATE STUDENTS TAKING THIS COURSE. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 603**  
ROBOTICS  
  
*Roderic Grupen*

COMPSCI 240 OR STATISTICS 515 WITH A GRADE OF C OR BETTER.

COMPSCI GRADUATE STUDENTS ONLY.

A BACKGROUND IN LINEAR ALGEBRA, DIFFERENTIAL EQUATIONS, AND PROGRAMMING SKILLS ARE ASSUMED. 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 610**  
COMPILER TECHNIQUES  
  
*Hui Guan*

COMPSCI 240 OR STATISTICS 515 WITH A GRADE OF C OR BETTER.

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  
  
*Ramesh Sitaraman*

COMPSCI 240 OR STATISTICS 515 WITH A GRADE OF C OR BETTER.

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 630**  
SYSTEMS  
  
*Emery Berger*

COMPSCI 240 OR STATISTICS 515 WITH A GRADE OF C OR BETTER.

COMPSCI GRADUATE STUDENTS ONLY.

SENIOR CS MAJORS WITH PERMISSION OF INSTRUCTOR AND UPD; BACKGROUND IN UNDERGRAD OS IS HELPFUL. SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

## SPIRE REGISTRATION INFORMATION for 2022 Spring

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

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

**COMPSCI 645**  
DB DSGN & IMPLMNTN  
Yanlei Diao, Marco Serafini

COMPSCI GRADUATE STUDENTS ONLY.

STUDENTS SHOULD HAVE TAKEN AN UNDERGRADUATE LEVEL COURSE ON OPERATING SYSTEMS (COMPSCI 377) OR DATABASES (COMPSCI 445). 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 651**  
OPTIMIZATION IN CS  
Madalina Fiterau Brostean

COMPSCI GRADUATE STUDENTS ONLY.

GRADUATE STUDENTS ENTERING THE COURSE ARE EXPECTED TO HAVE A STRONG WORKING KNOWLEDGE OF LINEAR ALGEBRA (MATH 545 EQUIVALENT) AND CALCULUS (EQUIVALENT TO A IN MATH 233), AS WELL AS BASIC KNOWLEDGE OF PROBABILITY AND STATISTICS. SOLID PROGRAMMING SKILLS IN A HIGH-LEVEL LANGUAGE SUCH AS PYTHON, R OR MATLAB ARE EXPECTED. 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 654**  
ADV WRLSS NTWK AND SNSNG IN IOT  
Jie Xiong

COMPSCI GRADUATE STUDENTS ONLY.

PREVIOUSLY COMPSCI 690W. COMPSCI GRADUATE STUDENTS ARE EXPECTED TO HAVE AN UNDERGRADUATE PREPARATION EQUIVALENT TO COMPSCI 230, 240, AND EITHER COMPSCI 328, 333 (PREVIOUSLY 390N), OR 453. AFTER CS GRADS HAVE ENROLLED, INSTRUCTOR WILL CONSIDER ECE GRAD STUDENTS, IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 674**  
INTELLIGENT VISUAL COMPUTING  
Evangelos Kalogerakis

COMPSCI GRADUATE STUDENTS ONLY.

PREVIOUSLY COMPSCI 690IV. MEETS WITH COMPSCI 574. COMPSCI GRADUATES AND OTHERS ARE ASSUMED TO HAVE SUCCESSFULLY COMPLETED PREREQS OR EQUIV: COMPSCI 311, 383, AND 373 (OR 473), ALL WITH A GRADE OF A- OR BETTER. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 677**  
DISTRIBUTED AND OPERATING SYS  
Prashant Shenoy

LECT 01: CS AND ECE GRADUATE STUDENTS ONLY.  
UWW LECT 01: ONLINE CS MASTERS STUDENTS ONLY.

INSTRUCTOR PERMISSION REQUIRED FOR SENIOR CS MAJORS CLEARED BY THE UPD, IF AVAILABLE SEATS. BACKGROUND IN UNDERGRAD OS (COMPSCI 377) IS HELPFUL. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. MS-ECE STUDENTS MAY ENROLL IN UNIVERSITY SECTION, BUT NOT UWW SECTION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 682**  
NEURAL NETWORKS:MODERN INTRO  
Erik Learned-Miller

LECT 01: COMPSCI GRADUATE STUDENTS ONLY.  
UWW LECT 01: MS-CMPSCI STUDENTS ONLY.

THE SPRING 2022 OFFERING OF THIS COURSE IS ONLINE. UNIVERSITY LECT 01 IS FOR CS GRADUATE STUDENTS WHO NEED A UNIVERSITY SECTION. UWW LECT 01 IS FOR MS-CMPSCI STUDENTS WHO WANT A UWW SECTION. RECORDED LECTURES WILL BE AVAILABLE ANY TIME OF THE DAY. IN ADDITION TO ONLINE RESOURCES, DISCUSSION SESSIONS, OFFICE HOURS, AND OTHER HELP SESSIONS WILL BE GIVEN REMOTELY OVER ZOOM. FOR STUDENTS WHO PREFER AN IN-PERSON EXPERIENCE, THE SAME COURSE IS OFFERED IN THE FALL SEMESTER EACH YEAR. REQUIRED BACKGROUND FOR THE COURSE INCLUDES THE FOLLOWING: MULTIVARIATE CALCULUS, LINEAR ALGEBRA, AND PROBABILITY AND STATISTICS. PROGRAMMING IN PYTHON OR EQUIVALENT HIGH LEVEL LANGUAGE. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. UNDERGRADUATES AND STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 685**  
ADV NATURAL LANG PROCESSING  
Mohit Iyyer

COMPSCI GRADUATE STUDENTS ONLY.

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: <https://www.cics.umass.edu/overrides>.

**COMPSCI 688**  
PROBABILISTIC GRAPHICAL MODELS  
Daniel Sheldon

COMPSCI GRADUATE STUDENTS ONLY.

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>.



## SPIRE REGISTRATION INFORMATION for 2022 Spring

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

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

**COMPSCI 690A**  
ADVANCED METHODS IN HCI  
Narges Mahyar

COMPSCI GRADUATE STUDENTS ONLY.

WHILE THERE ARE NO SET PREREQUISITES, FAMILIARITY WITH HCI PRINCIPLES WILL BE AN ASSET. PROGRAMMING ABILITY IS EXPECTED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 690RA**  
RANDOMIZED ALGORITHMS  
Cameron Musco

COMPSCI GRADUATE STUDENTS ONLY.

GRADUATE STUDENTS ARE EXPECTED TO HAVE MATHEMATICAL MATURITY, EXPOSURE TO ALGORITHM DESIGN AND ANALYSIS AT THE ADVANCED UNDERGRADUATE (SUCH AS COMPSCI 311) OR BEGINNING GRADUATE LEVEL (SUCH AS COMPSCI 514 OR 611) AND A SOLID GROUNDING IN LINEAR ALGEBRA AND PROBABILITY THEORY. STUDENTS WITHOUT SUCH BACKGROUND CAN SEEK PERMISSION OF THE INSTRUCTOR. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 691NR**  
S-NEURAL NETWORKS:NEUROSC/ENGG  
Hava Siegelmann

COMPSCI GRADUATE STUDENTS ONLY.

MEETS WITH COMPSCI 591NR. UNDERGRADUATE COURSE IN ALGORITHMS EQUIVALENT TO COMPSCI 311 IS ASSUMED. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 691O**  
S-TOOLS-EXPLANATORY/TUTRNG SYS  
Beverly Woolf

GRADUATE STUDENTS ONLY.

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

**COMPSCI 692F**  
S-CONVERSATIONAL AI  
Hamed Zamani

CS GRADUATE STUDENTS ONLY.

SECTION 01=2 CREDITS; SECTION 02=3 CREDITS (REQUIRES INSTRUCTOR PERMISSION). STUDENTS ARE EXPECTED TO BE FAMILIAR WITH STATISTICAL, MACHINE LEARNING AND DEEP LEARNING MODELS APPLIED TO NATURAL LANGUAGE PROCESSING, INFORMATION RETRIEVAL, AND/OR COMPUTER VISION. EITHER OF THE FOLLOWING PREREQUISITE COURSES WILL PROVIDE THIS BACKGROUND: COMPSCI 682, COMPSCI 646, COMPSCI 685, OR COMPSCI 670. STUDENTS CAN WORK ON AN OPTIONAL PROJECT FOR 3 CREDITS WITH INSTRUCTOR PERMISSION. REGISTER FOR SECTION 01 AND CONTACT INSTRUCTOR ABOUT THE OPTION PROJECT AND SWITCHING INTO SECTION 02. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 692G**  
S-SIMULATION AND CAUSAL MODEL  
Peter Haas, David Jensen

COMPSCI GRADUATE STUDENTS ONLY.

SECTION 01=3 CREDITS; SECTION 02=1 CREDIT. A PROJECT IS REQUIRED FOR STUDENTS TAKING FOR 3 CREDITS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 692J**  
S-QUANTUM ALGORITHMS  
Donald Towsley

COMPSCI 590Q OR COMPSCI 690Q.

GRADUATE STUDENTS ONLY.

SECT 01=3 CR; SECT 02=1 CR. GRADUATE STUDENTS WITH A PREVIOUS COURSE IN QUANTUM SYSTEMS, OR INSTRUCTOR APPROVAL. STUDENTS NOT MEETING PREREQUISITE SHOULD CONTACT INSTRUCTOR: [towsley@cs.umass.edu](mailto:towsley@cs.umass.edu)

**COMPSCI 697M**  
ST-FIXING SOCIAL MEDIA  
Ethan Zuckerman

COMPSCI GRADUATE STUDENTS ONLY.

MEETS WITH COMM 697M AND SPP 697M.

## SPIRE REGISTRATION INFORMATION for 2022 Spring

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

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

**COMPSCI 701**  
ADV TOPICS IN CMPSCI

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: <https://www.cics.umass.edu/content/registration>

**COMPSCI 701Y**  
ADV TOPICS IN CMPSCI (1ST SEM)

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: <https://www.cics.umass.edu/content/registration>

**COMPSCI 791B**  
S-BAYESIAN DEEP LEARNING  
Benjamin Marlin

COMPSCI GRADUATE STUDENTS ONLY.

SECT 01=3 CR; SECT 02=1 CR.

**COMPSCI 879**  
TEACH ASSTS-TOMORROW'S FACULTY  
Ivon Arroyo

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.

**COMPSCI 891M**  
S-THEORY OF COMPUTATION  
David Barrington

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: <https://www.cics.umass.edu/overrides>.

**COMPSCI 899**  
PHD DISSERTATION

COURSE OPEN ONLY TO CS GRADUATE STUDENTS WHO HAVE PASSED PORTFOLIO. REQUEST OVERRIDE VIA THE SPECIAL ON-LINE FORM: <https://www.cics.umass.edu/content/registration>

**COMPSCI H311**  
INTRO TO ALGORITHMS (COLLOQ)  
Marius Minea

**COMPSCI 187 AND COMPSCI 250 (OR MATH 455) WITH A GRADE OF C OR BETTER (OR COMPSCI 311 WITH A GRADE OF B OR BETTER).**

COMMONWEALTH HONORS COLLEGE JUNIOR AND SENIOR CS AND MATH MAJORS ONLY.

NO OPTION FOR PASS/FAIL. STUDENTS MUST BE ENROLLED IN COMPSCI 311 (OR HAVE COMPLETED COMPSCI 311 WITH A GRADE OF B OR BETTER). REQUEST OVERRIDE VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI H326**  
HNRS COLLOQ: WEB PROGRAMMING  
Timothy Richards

**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 (OR COMPSCI 326 WITH A GRADE OF B OR BETTER).**

COMMONWEALTH HONORS COLLEGE JUNIOR AND SENIOR CS AND INFORMATICS MAJORS ONLY.

NO OPTION FOR PASS/FAIL. STUDENTS MUST BE ENROLLED IN COMPSCI 326 (OR HAVE COMPLETED COMPSCI 326 WITH A GRADE OF B OR BETTER). REQUEST OVERRIDE VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI H589**  
HNRS COLLOQ: MACHINE LEARNING  
Bruno Castro da Silva

**COMPSCI 383 AND MATH 235 WITH A GRADE OF C OR BETTER (OR COMPSCI 589 WITH A GRADE OF B OR BETTER).**

COMMONWEALTH HONORS COLLEGE JUNIOR AND SENIOR CS MAJORS ONLY.

NO OPTION FOR PASS/FAIL. STUDENTS MUST BE ENROLLED IN COMPSCI 589 (OR HAVE COMPLETED COMPSCI 589 WITH A GRADE OF B OR BETTER). REQUEST OVERRIDE VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

## SPIRE REGISTRATION INFORMATION for 2022 Spring

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

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

<p><b>INFO 101</b> INTRO TO INFORMATICS <i>Cheryl Swanier</i></p>		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: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<p><b>INFO 150</b> MATH FOUND-INFORMATICS <i>Cole Reilly</i></p>		INFORM MAJORS ONLY.	CS AND MATH/STAT MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. AFTER INFORM MAJORS REGISTER, INFO 150 WILL OPEN TO ALL NON-CS UNDERGRADUATES. R1 MATH USEFUL; NOT ABSOLUTELY REQUIRED. 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>INFO 190S</b> INTRO TO PGMG <i>Ghazaleh Parvini</i></p>	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.	UNDERGRADUATES 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> .
<p><b>INFO 190T</b> INTRO DATA STRCTRS IN PYTHON <i>Matthew Rattigan</i></p>	INFO 190S WITH A GRADE OF C OR BETTER.	INFORM MAJORS ONLY.	USE OF PERSONAL LAPTOP IN CLASS IS REQUIRED. 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>INFO 203</b> A NETWORKED WORLD <i>James Kurose</i></p>		INFORM MAJORS ONLY.	CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. AFTER INFORM MAJORS REGISTER, INFO 203 WILL OPEN TO ALL NON-CS UNDERGRADUATES. 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>INFO 248</b> INTRO TO DATA SCIENCE <i>Gordon Anderson</i></p>	COMPSCI 121 AND PSYCH 240 (OR OIM 240, OR STATISTICS 240, OR STATISTICS 515, OR RES-ECON 212, OR SOCIOL 212) BOTH WITH A GRADE OF C OR BETTER.	INFORM MAJORS ONLY.	PREVIOUS EXPERIENCE WITH A PROGRAMMING LANGUAGE (OTHER THAN COMPSCI 121) MAY BE CONSIDERED FOR OVERRIDE. BASIC MATHEMATICAL MATURITY (COLLEGE ALGEBRA) IS ASSUMED. BASIC PROBABILITY AND STATISTICS, SUCH AS ONE OF THE COURSES REQUIRED FOR REGISTRATION ON SPIRE IS REQUIRED. THIS COURSE CONSISTS OF TWO LECTURES AND ONE LAB SECTION PER WEEK. EACH LECTURE MEETING INCLUDES A PRESENTATION OF CONCEPTUAL MATERIAL AS WELL AS SOME TIME TO WORK ON IMPLEMENTATION OF THE MATERIAL PRESENTED. IN LAB TIME, STUDENTS RECEIVE DETAILED INSTRUCTION ON THE USE OF SOFTWARE TOOLS TO ANALYZE ACTUAL DATA SETS. READINGS WILL BE ASSIGNED AS PREPARATION FOR EACH CLASS MEETING. A PROJECT WILL BE ASSIGNED DURING THE COURSE. STUDENTS WORK IN PAIRS ON THE PROJECT. THE PROJECT PROVIDES STUDENTS WITH AN OPPORTUNITY TO WORK COLLABORATIVELY TO EXPLORE A TOPIC IN MORE DEPTH. 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>INFO 390W</b> INTRO CLINICAL HLTH INFORMTCS <i>Sunghoon Lee, Anthony Nunes</i></p>	INFO 248 (OR STATISTICS 515 OR COMPSCI 240) WITH A GRADE OF C OR BETTER.	INFORM MAJORS ONLY.	MEETS WITH COMPSCI 590W. THIS COURSE IS A CORE IN THE INFORMATICS HEALTH AND LIFE SCIENCES (HLS) CONCENTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="http://www.cics.umass.edu/overrides">http://www.cics.umass.edu/overrides</a> .
<p><b>INFO 490C</b> INTRO SOC&amp;CULTURAL ANALYTICS <i>Laure Thompson</i></p>	INFO 248 WITH A GRADE OF C OR BETTER.	INFORM MAJORS ONLY.	FOR SPRING 2022 ONLY, CS MAJORS MAY COUNT INFO 490C AS AN OUTSIDE ELECTIVE FOR THE BS-CS CURRICULUM. PERMISSION OF INSTRUCTOR IF NOT MEETING PREREQUISITE. 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 2022 Spring**

PREREQUISITES

ELIGIBILITY RESTRICTIONS

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

**INFO**      **690C**  
*INTRO SOC&CULTURAL ANALYTICS*  
*Laure Thompson*

PHD GRADUATE STUDENTS ONLY, EXCLUDING CS.

BASIC EXPERIENCE WITH PYTHON, INTRODUCTORY DATA SCIENCE, OR OTHER INTRODUCTORY PROGRAMMING EXPERIENCE IS RECOMMENDED BUT NOT REQUIRED. ALL REQUIRED PROGRAMMING AND STATISTICAL CONCEPTS WILL BE INTRODUCED IN THIS COURSE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.