

## SPIRE REGISTRATION INFORMATION for 2025 Spring

PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<b>CICS 109</b> INTRO TO DATA ANALYSIS IN R  <i>Jasper McChesney</i>	NON-COMPSCI MAJORS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>CICS 110</b> FOUNDATIONS OF PROGRAMMING  <i>Cole Reilly, Jacob Urisman, Brett Mullins, Prit Pritam Shah, Aadam Anish Lokhandwala</i>	COMPLETION OF THE R1 GEN ED (OR A SCORE OF 15 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.	OPEN TO FRESHMEN, SOPHOMORES AND JUNIORS ONLY.  STUDENTS ARE NOT PERMITTED TO TAKE CICS 110 AFTER SUCCESSFULLY COMPLETING COMPSCI 121. AFTER ELIGIBLE CS, INFORM, MATH, PHYSICS AND CMPLING MAJORS HAVE ENROLLED, WILL OPEN TO FRESHMEN, SOPHOMORE, AND JUNIOR UNDERGRADUATES, IF AVAILABLE SEATS. FRESHMEN, SOPHOMORE, AND JUNIORS IN OTHER MAJORS SHOULD WAIT FOR THE ELIGIBILITY RESTRICTION TO BE REMOVED TO SELF-ENROLL AND SHOULD NOT REQUEST AN OVERRIDE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>CICS 127</b> INTRO TO PUBLIC INTEREST TECH  <i>Francine Berman</i>	UNDERGRADUATES ONLY.	THIS COURSE COUNTS TOWARDS THE IT MINOR AND IS REQUIRED FOR THE PIT UNDERGRADUATE CERTIFICATE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>CICS 160</b> OBJECT-ORIENTED PROGRAMMING  <i>Jaime Davila, Cole Reilly</i>	CICS 110 (PREVIOUSLY INFO 190S) OR COMPSCI 121 WITH A GRADE OF C OR BETTER.	FRESHMEN, SOPHOMORE AND JUNIORS ONLY.  STUDENTS ARE NOT PERMITTED TO TAKE CICS 160 AFTER SUCCESSFULLY COMPLETING COMPSCI 186. USE OF PERSONAL LAPTOP IN CLASS IS REQUIRED. AFTER ELIGIBLE CS, INFORM AND COMP LING MAJORS HAVE ENROLLED, WILL OPEN TO OTHER MAJORS, IF AVAILABLE SEATS. ELIGIBLE NON-MAJORS SHOULD WAIT FOR THE MAJOR ELIGIBILITY RESTRICTION TO BE REMOVED TO SELF-ENROLL AND SHOULD NOT REQUEST AN OVERRIDE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>CICS 210</b> DATA STRUCTURES  <i>Mordecai Golin, Timothy Richards</i>	CICS 160 (PREVIOUSLY INFO 190T) WITH A GRADE OF C OR BETTER.	FRESHMEN, SOPHOMORE AND JUNIORS ONLY.  STUDENTS ARE NOT PERMITTED TO TAKE CICS 210 AFTER SUCCESSFULLY COMPLETING COMPSCI 187. AFTER ELIGIBLE CS, INFORM AND COMP LING MAJORS HAVE ENROLLED, WILL OPEN TO OTHER FRESHMEN, SOPHOMORE, AND JUNIORS, IF AVAILABLE SEATS. ELIGIBLE NON-CS AND NON-INFORM MAJORS SHOULD WAIT FOR THE MAJOR ELIGIBILITY RESTRICTION TO BE REMOVED TO SELF-ENROLL AND SHOULD NOT REQUEST AN OVERRIDE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>CICS 256</b> MAKE: PHYSICAL COMPUTING  <i>Stefan Krastanov</i>	CICS 210 (OR COMPSCI 187) WITH A GRADE OF C OR BETTER AND BASIC MATH SKILLS (R1).	FRESHMAN, SOPHOMORE AND JUNIOR BS-CS MAJORS ONLY.  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 FRESHMEN BS-CS MAJORS ONLY. AFTER SOPHOMORE AND FRESHMEN REGISTER, PROGRAM WILL CONSIDER OPENING TO JUNIOR BS-CS MAJORS, IF AVAILABLE SEATS. JUNIOR BS-CS MAJORS SHOULD WAIT FOR ELIGIBILITY TO OPEN TO SELF-ENROLL OR ADD TO THE WAITLIST (IF AVAILABLE) AND SHOULD NOT REQUEST AN OVERRIDE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>CICS 291C</b> S-FIND STRENGTHS/DESIGN CAREER  <i>Casey Maloney</i>		CS AND INFORM SOPHOMORES AND JUNIORS ONLY  MANDATORY PASS/FAIL. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>CICS 291S</b> S-CICS SECOND YEAR PATHWAYS  <i>Erfan Entezami</i>	CICS 210 (OR COMPSCI 187) WITH A GRADE OF C OR BETTER.	SOPHOMORE, JUNIOR, AND SENIOR CS MAJORS ONLY.  CS MAJORS MUST BE TAKING AT LEAST ONE COMPSCI 200-LEVEL CORE CONCURRENTLY TO BE ELIGIBLE. NON-CS MAJORS WHO HAVE TAKEN (OR ARE TAKING) AT LEAST TWO COMPSCI 200-LEVEL CORE WILL BE CONSIDERED IF AVAILABLE SEATS. INTERESTED STUDENTS SHOULD COMPLETE THE ONLINE FORM: <a href="https://forms.gle/3RsgkVzEtPKoqnUj6">https://forms.gle/3RsgkVzEtPKoqnUj6</a>
<b>CICS 291T</b> S-CICS TRANSFER SUCCESS  <i>Emma Anderson</i>		DEPARTMENT CONSENT REQUIRED: OPEN TO INCOMING CS AND INFORM TRANSFER STUDENTS ONLY.

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<p><b>CICS 298A</b> P-LEADRSH:COMMUNCTNG-EXPRTISE  <i>Emma Anderson, Ruchi Gupta</i></p>	<p>CICS 160 (PREVIOUSLY INFO 190T), COMPSCI 186, OR COMPSCI 187, OR CICS 210 WITH A GRADE OF C OR BETTER.</p>	<p>FRESHMEN, SOPHOMORE, AND JUNIOR CS AND INFORM 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/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a></p>
<p><b>CICS 305</b> SOC ISS IN CMPTNG  <i>Erin Butler, Elizabeth Gunther, Siobhan Mei, Justin Obara, Matthew Ross, Christina Sutcliffe</i></p>	<p>CS MAJORS: ENGLWRIT 112 WITH A GRADE OF C OR BETTER (OR ENGLISH WRITING WAIVER) AND COMPSCI 220, COMPSCI 230 AND EITHER COMPSCI 240 OR COMPSCI 250. INFORM MAJORS: ENGLWRIT 112 WITH A GRADE OF C OR BETTER (OR ENGLISH WRITING WAIVER) AND INFO 248.</p>	<p>ODD LECs: SENIOR AND JUNIOR CS MAJORS ONLY. RESTRICTED TO CS PRIMARY MAJORS. EVEN LECs: 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 AND INFORM PRIMARY MAJORS ONLY. CS AND INFORM SECONDARY MAJORS MUST TAKE JUNIOR YEAR WRITING COURSE WITHIN PRIMARY MAJOR DEPARTMENT. LECT 01-02 MEET TOGETHER; LECT 03-04... ETC. SPIRE WILL ONLY RECOGNIZE THE ENGLWRIT112 PREREQUISITE WHEN TAKEN AT UMASS AMHERST. ELIGIBLE 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: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a></p>
<p><b>CICS 396A</b> IS-DIRECTED RESEARCH GROUP  <i>Neena Thota</i></p>		<p>STUDENTS MUST BE ENROLLED IN THE ERSF PROGRAM AND SUCCESSFULLY COMPLETED CICS 237 INTRODUCTION TO RESEARCH IN THE DISCIPLINE IN THE FALL. THEY ARE THEN ENROLLED IN THIS COURSE IN THE SPRING OF THE SECOND YEAR. CS AND INFORM MAJORS MAY PETITION TO COUNT AS A MAJOR ELECTIVE. UPD APPROVAL REQUIRED, SUBJECT TO PROGRAM RULES THAT APPLY TO INDEPENDENT STUDY COURSES.</p>
<p><b>CICS 398T</b> P-CPT</p>		<p>UNDERGRADUATE CS AND INFORM MAJORS ONLY.</p> <p>INTERNATIONAL UNDERGRADUATE STUDENTS SHOULD REFER TO THE IPO WEBSITE FOR DETAILS ABOUT CURRICULAR PRACTICAL TRAINING (CPT). SEE DETAILS ABOUT REGISTRATION AND THE CPT APPLICATION PROCESS FOR CS MAJORS: <a href="https://cicscareers.notion.site/CPT-Process-for-Internships-c0f1d14ccfe5448ba786583a49993209">https://cicscareers.notion.site/CPT-Process-for-Internships-c0f1d14ccfe5448ba786583a49993209</a></p>
<p><b>CICS 590P</b> TECHNLGY POLICY AND INNOVATION  <i>Emily Nutwell, Carolina Rossini</i></p>	<p>UNDERGRADUATE PREREQUISITE: CICS 305 WITH A GRADE OF C OR BETTER.</p>	<p>LEC 01: JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY. LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY.</p> <p>CROSS-LISTED WITH SPP 590P. LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. CS/INFORM MAJORS WHO HAVE COMPLETED AN ALTERNATE JYW COURSE WITH A C OR BETTER WILL BE CONSIDERED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a></p>
<p><b>CICS 598T</b> P-CPT</p>		<p>CMPSCI GRADUATE STUDENTS ONLY.</p> <p>COMPUTER SCIENCE GRADUATE STUDENTS INTERESTED IN PURSUING CPT MUST SUBMIT AN EXPERIENTIAL LEARNING REQUEST IN SPIRE. STAFF WILL ENROLL GRADUATE STUDENTS FOR FALL AND SPRING IN THE UNIV SECTION AND FOR WINTER AND SUMMER IN THE UWW SECTION. DETAILS ABOUT REGISTRATION AND THE CPT APPLICATION PROCESS FOR CMPSCI GRADUATE STUDENTS: <a href="https://cicscareers.notion.site/CPT-Process-for-Internships-c0f1d14ccfe5448ba786583a49993209">https://cicscareers.notion.site/CPT-Process-for-Internships-c0f1d14ccfe5448ba786583a49993209</a></p>
<p><b>COMPSCI 119</b> INTRO PROGRAMMING  <i>Devdhar Patel</i></p>		<p>UNDERGRADUATE NON-CS MAJORS ONLY.</p> <p>CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. AFTER SOPHOMORE AND FRESHMEN REGISTER, WILL OPEN TO JUNIORS. NON-CS JUNIORS SHOULD WAIT FOR THE ELIGIBILITY RESTRICTION TO BE REMOVED TO SELF-ENROLL AND SHOULD NOT REQUEST AN OVERRIDE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a></p>
<p><b>COMPSCI 198C</b> P-INTRO-C PROGRAMMING LANGUAGE  <i>Meng-Chieh Chiu, Timothy Richards</i></p>	<p>CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 186 OR CICS 210) WITH A GRADE OF C OR BETTER OR COMPSCI 121 WITH A GRADE OF B OR BETTER.</p>	<p>FRESHMEN, SOPHOMORE, AND JUNIORS ONLY.</p> <p>STARTING FALL 2023, PASSING COMPSCI 198C IS A REQUIRED PREREQUISITE FOR COMPSCI 230. STUDENTS WITH AP OR TRANSFER CREDIT FOR COMPSCI 121 WILL NEED AN OVERRIDE FOR REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a></p>
<p><b>COMPSCI 220</b> PGMG METHODOLOGY  <i>Marius Minea</i></p>	<p>CICS 210 (OR COMPSCI 187) WITH A GRADE OF C OR BETTER.</p>	<p>CS MAJORS ONLY.</p> <p>SEATS ARE BEING SAVED FOR INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD. REMAINING SEATS WILL BE RELEASED PRIOR TO CLASS START. REMAINING SEATS WILL BE RELEASED AT THAT TIME. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a></p>

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<b>COMPSCI 230</b> CMPTR SYS PRINC  <i>Phuthipong Bovornkeeratiroj, Meng-Chieh Chiu</i>	CICS 210 (OR COMPSCI 187) WITH A GRADE OF C OR BETTER AND COMPSCI 198C.	CS MAJORS ONLY.	STARTING FALL 2023, PASSING COMPSCI 198C IS A REQUIRED PREREQUISITE. SEATS ARE BEING SAVED FOR INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD. REMAINING SEATS WILL BE RELEASED PRIOR TO CLASS START. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 240</b> RSNQ UNDER UNCERTAINTY  <i>Mark Wilson</i>	CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 187 OR CICS 210) AND MATH 132, BOTH WITH A GRADE OF C OR BETTER.	Open to UNDERGRADUATES	SEATS ARE BEING SAVED FOR INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD. REMAINING SEATS WILL BE RELEASED PRIOR TO CLASS START. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 250</b> INTRO TO COMPUTATION  <i>David Barrington, Mordecai Golin</i>	CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 187 OR ECE 241 OR CICS 210) AND MATH 132, BOTH WITH A GRADE OF C OR BETTER.	CS, CSENG, AND MATH MAJORS ONLY.	SEATS ARE BEING SAVED FOR INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD. REMAINING SEATS WILL BE RELEASED PRIOR TO CLASS START. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 311</b> INTRO TO ALGORITHMS  <i>Marius Minea, Daniel Sheldon</i>	CICS 210 (OR COMPSCI 187) AND COMPSCI 250 (OR MATH 455), BOTH WITH A GRADE OF C OR BETTER.	SOPHOMORE, JUNIOR AND SENIOR CS MAJORS ONLY.	SEATS ARE BEING SAVED FOR INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD. AFTER JUNIOR AND SENIOR CS MAJORS REGISTER, WILL OPEN TO SOPHOMORES. SOPHOMORE CS MAJORS SHOULD WAIT FOR THE ELIGIBILITY RESTRICTION TO BE REMOVED TO SELF-ENROLL AND SHOULD NOT REQUEST AN OVERRIDE. REMAINING SEATS WILL BE RELEASED PRIOR TO CLASS START. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 320</b> INTRO TO SOFTWARE ENGINEERING  <i>Gordon Anderson, Jaime Davila, Matthew Rattigan</i>	COMPSCI 220 WITH GRADE OF C OR BETTER.	SENIOR, JUNIOR AND SOPHOMORE CS MAJORS.	NO OPTION FOR PASS/FAIL. SATISFIES INTEGRATIVE EXPERIENCE REQUIREMENT FOR CS MAJORS. MEETS WITH COMPSCI 429. GRADUATING SENIORS ARE PRIORITIZED AND PRE-ENROLLED BY THE PROGRAM. SEATS ARE BEING SAVED FOR INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD. AFTER JUNIOR AND SENIOR CS MAJORS REGISTER, WILL OPEN TO SOPHOMORES. SOPHOMORE CS MAJORS SHOULD WAIT FOR THE ELIGIBILITY RESTRICTION TO BE REMOVED TO SELF-ENROLL AND SHOULD NOT REQUEST AN OVERRIDE. REMAINING SEATS WILL BE RELEASED PRIOR TO CLASS START. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 326</b> WEB PROGRAMMING  <i>Meng-Chieh Chiu</i>	COMPSCI 220 (OR COMPSCI 230) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	U1 LEC 01 IS HYBRID. STUDENTS IN LEC 01 WILL ATTEND CLASS IN PERSON ON TUESDAYS AND THURSDAYS. UO1 LEC 01 IS FULLY ONLINE AND STUDENTS ARE REQUIRED TO WATCH LECTURES SYNCHRONOUSLY ON TUESDAYS AND THURSDAYS. REQUIRED LABORATORY ATTENDANCE IS ON-LINE SYNCHRONOUSLY FOR BOTH SECTIONS. NO OPTION FOR PASS/FAIL. SATISFIES INTEGRATIVE EXPERIENCE REQUIREMENT FOR CS AND INFORM MAJORS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 328</b> MOBILE HEALTH SENSING&ANALYTCS  <i>Phuc Nguyen</i>	CS MAJORS: CICS 210 (OR COMPSCI 187) WITH A GRADE OF C OR BETTER. INFORM MAJORS: INFO 248 AND CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 186 OR COMPSCI 187), BOTH WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	SEATS ARE BEING SAVED FOR INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD. REMAINING SEATS WILL BE RELEASED PRIOR TO CLASS START. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 345</b> PRACT & APPLICS OF DATA MGMT  <i>Gordon Anderson</i>	CS MAJORS: CICS 210 (OR COMPSCI 187) WITH A GRADE OF C OR BETTER. INFORM MAJORS: INFO 248 AND CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 186 OR COMPSCI 187), BOTH WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	SEATS ARE BEING SAVED FOR INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD. REMAINING SEATS WILL BE RELEASED PRIOR TO CLASS START. 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 AND SHOULD NOT ENROLL. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 348</b> PRINCIPLES OF DATA SCIENCE  <i>David Jensen</i>	CICS 210 (OR 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> .

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<b>COMPSCI 360</b> INTRO COMPUTER/NETWRK SECURITY <i>Eugene Bagdasarian</i>	COMPSCI 230 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/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 367</b> REV ENGG&UNDRSTNDG EXPLOIT DEV <i>Lurene Grenier</i>	COMPSCI 230 (OR E&C-ENG 322) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS, INFORM AND CSENG MAJORS ONLY.	PREVIOUSLY COMPSCI 390R. MEETS WITH COMPSCI 590AF BEGINNING SPRING 2025. ALTHOUGH OPEN TO INFORM MAJORS, THIS COURSE DOES NOT COUNT AS AN INFORM ELECTIVE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 370</b> INTRO TO COMPUTER VISION <i>Subhransu Maji</i>	COMPSCI 240 OR COMPSCI 383 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	A BACKGROUND IN LINEAR ALGEBRA (MATH 235) IS RECOMMENDED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 373</b> INTRO TO COMPUTER GRAPHICS <i>Rui Wang</i>	CICS 210 (OR 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 NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 377</b> OPERATING SYSTEMS <i>Phuthipong Bovornkeeratiroj</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/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 383</b> ARTIFICIAL INTELLIGENCE <i>William McNichols</i>	CS MAJORS: CICS 210 AND COMPSCI 240 (OR STATISC 315, PREVIOUSLY STATISC 515), BOTH WITH A GRADE OF C OR BETTER. INFORM MAJORS: INFO 348 AND STATISC 315 (PREVIOUSLY STATISC 515), BOTH WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	SOME KNOWLEDGE OF PYTHON IS ASSUMED FOR ELIGIBLE STUDENTS TO USE COMPSCI 187 IN PLACE OF THE CICS 210 PREREQUISITE VIA OVERRIDE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 389</b> INTRO TO MACHINE LEARNING <i>Philip Thomas</i>	COMPSCI 220 (OR COMPSCI 230), COMPSCI 240 (OR STATISC 315, PREVIOUSLY STATISC 515), AND MATH 233, ALL WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	STUDENTS WHO HAVE COMPLETED COMPSCI 589 ARE NOT ELIGIBLE FOR THIS COURSE AND SHOULD NOT ENROLL. STUDENTS WITH PRIOR EXPERIENCE IN MACHINE LEARNING OR WHO ARE ALREADY PASSIONATE ABOUT THE SUBJECT ARE ENCOURAGED TO TAKE COMPSCI 589 INSTEAD. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 390B</b> HARNESS DATA SCI-SOCIETAL GOOD <i>Abhidip Bhattacharyya</i>	COMPSCI 230 AND COMPSCI 240 (OR STATISC 315, PREVIOUSLY STATISC 515), BOTH WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	NO PASS/FAIL OPTION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 398A</b> P-CREDITED INTERNSHIP			CICS CAREERS AND INSTRUCTOR PERMISSION REQUIRED.

## SPIRE REGISTRATION INFORMATION for 2025 Spring

	<u>PREREQUISITES</u>	<u>ELIGIBILITY RESTRICTIONS</u>	<u>CLASS NOTES/COMMENTS</u> <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<b>COMPSCI 403</b> INTRO ROBTCS:PRCP,MECH,DYN,CTRL  <i>Donghyun Kim</i>	MATH 235 AND COMPSCI 220 (OR COMPSCI 230) WITH GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	UNDERGRADUATE PROGRAMMING CLASS, MATLAB OR PYTHON PROGRAMMING EXPERIENCE IS PREFERRED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 420</b> SOFTWARE ENTREPRENEURSHIP  <i>Matthew Rattigan</i>	COMPSCI 320 (OR COMPSCI 326) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	THIS COURSE QUALIFIES AS A 'CAPSTONE COURSE' FOR THE UNDERGRADUATE CERTIFICATE IN PUBLIC INTEREST TECHNOLOGY, ASSUMING THE STUDENT WORK PRODUCED IS DEEMED SUITABLE BY THE INSTRUCTOR. MAKE SURE TO DISCUSS USING THIS COURSE FOR THIS PURPOSE WITH THE INSTRUCTOR AT THE BEGINNING OF THE COURSE. FOR MORE INFORMATION ON THE CERTIFICATE: <a href="https://groups.cs.umass.edu/pit/undergraduate-pit-certificate/">https://groups.cs.umass.edu/pit/undergraduate-pit-certificate/</a> . STUDENTS ENROLLED IN THE UNDERGRADUATE CERTIFICATE IN PUBLIC INTEREST TECHNOLOGY ARE ELIGIBLE VIA OVERRIDE. IF YOU HAVE QUESTIONS ABOUT THE PIT CERTIFICATE, EMAIL THE PIT CERTIFICATE PROGRAM DIRECTOR, PROFESSOR CHARLIE SCHWEIK AT <a href="mailto:cschweik@umass.edu">cschweik@umass.edu</a> . STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 426</b> SCALABLE WEB SYSTEMS  <i>Timothy Richards</i>	COMPSCI 320 OR COMPSCI 326 WITH A GRADE OF C OR BETTER.	<i>U1 LEC 01: JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.</i> <i>UO1 LEC 01: SENIOR CS MAJORS ONLY.</i>	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). UO1 LEC 01 FOR SENIOR CS MAJORS ONLY IS FULLY ONLINE WITH OPTIONAL SYNCHRONOUS LIVE LEC. MW 2:30-3:45. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 429</b> SOFTWARE ENGINEERING PROJ MGMT  <i>Gordon Anderson, Jaime Davila, Matthew Rattigan</i>	COMPSCI 320 WITH A GRADE OF B OR BETTER.	UNDERGRADUATE CS MAJORS ONLY.	INSTRUCTOR CONSENT REQUIRED. MEETS WITH COMPSCI 320. ELIGIBLE STUDENTS MAY EMAIL INSTRUCTOR FOR PERMISSION TO ENROLL. ONCE APPROVED TO ENROLL, REFER TO INSTRUCTOR PERMISSION ON THE OVERRIDE REQUEST AND SUBMIT VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 445</b> INFORMATION SYSTEMS  <i>Trek Palmer</i>	COMPSCI 220 (OR COMPSCI 230) AND COMPSCI 311 AND COMPSCI 345, ALL WITH GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	WITH INSTRUCTOR PERMISSION, STUDENTS WITH PRIOR EXPERIENCE IN DATABASES MAY SUBSTITUTE ONE OF COMPSCI 320, 326, OR 377 WITH A GRADE OF C OR BETTER FOR THE COMPSCI 345 PREREQUISITE. IF AVAILABLE SEATS, STUDENTS WHO ARE NOT CS MAJORS BUT HAVE SUFFICIENT PROGRAMMING EXPERIENCE OR CS GRADUATE STUDENTS MAY SUBMIT AN OVERRIDE FOR INSTRUCTOR CONSIDERATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 446</b> SEARCH ENGINES  <i>Razieh Rahimi</i>	COMPSCI 240 OR COMPSCI 383 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	INSTRUCTOR WILL CONSIDER STATISTC 315/515 AS AN ALTERNATE PREREQUISITE IN PLACE OF COMPSCI 240 VIA OVERRIDE IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 453</b> COMPUTER NETWORKS  <i>Arun Venkataramani</i>	COMPSCI 230 (OR COMPSCI 377) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS WILL BENEFIT SIGNIFICANTLY FROM A PRIOR OR CONCURRENT EXPOSURE TO PROBABILITY (COMPSCI 240), ALGORITHMS (COMPSCI 311), AND MULTI-THREADED PROGRAMMING (COMPSCI 377 OPERATING SYSTEMS) ALTHOUGH THESE ARE NOT STRICT PREREQUISITES, STUDENTS MUST BE ABLE TO PROGRAM IN A STRUCTURED HIGH-LEVEL PROGRAMMING LANGUAGE, SUCH AS JAVA, C OR C++, PYTHON, ETC. PROGRAMMING PROJECTS IN A LANGUAGE OF STUDENT CHOICE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-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/academics/course-overrides">https://www.cics.umass.edu/academics/course-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.	STUDENTS MAY WORK INDEPENDENTLY IN LGRT 224 TO COMPLETE LAB ASSIGNMENTS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>

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	<u>PREREQUISITES</u>	<u>ELIGIBILITY RESTRICTIONS</u>	<u>CLASS NOTES/COMMENTS</u> <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<b>COMPSCI 496C</b> IS-SOC ENTRPRNRSHP LAUNCHPAD  <i>Matthew Rattigan</i>	COMPSCI 420 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	INSTRUCTOR CONSENT REQUIRED. OPEN TO CS AND INFORM MAJORS WHO HAVE SUCCESSFULLY COMPLETED COMPSCI 420.
<b>COMPSCI 501</b> FORMAL LANGUAGE THEORY  <i>David Barrington</i>	UNDERGRADUATES: COMPSCI 311 WITH A GRADE OF C OR BETTER.	LEC 01: JUNIOR AND SENIOR CS AND MATH MAJORS ONLY. LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY.	LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. IT IS RECOMMENDED THAT UNDERGRADUATE STUDENTS HAVE A GRADE OF B- OR BETTER IN COMPSCI 311 IN ORDER TO ATTEMPT 501. INSTRUCTOR WILL CONSIDER CONCURRENT ENROLLMENT WITH COMPSCI 311 FOR STUDENTS WHO HAVE COMPLETED COMPSCI 250 WITH A GRADE OF A, IF AVAILABLE SEATS. 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/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 508</b> ETHICAL CONSIDRTNS IN COMPUTNG  <i>Michelle Trim</i>		COMPSCI GRADUATE STUDENTS ONLY.	UNDERGRADUATE CS AND INFORM MAJORS WHO HAVE SUCCESSFULLY COMPLETED CICS 305 WITH A C OR BETTER WILL BE CONSIDERED FOR A SEAT IN THIS COURSE. THIS COURSE FULFILLS THE ETHICS REQUIREMENT FOR HLS. THIS COURSE COUNTS AS AN ELECTIVE FOR THE CS AND INFORM MAJORS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-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 315/515, COMPSCI 311, MATH 233, AND MATH 235, ALL WITH A GRADE OF C OR BETTER).	UNIV LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. UNIV LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY.	LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. SEATS HELD IN LEC 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/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 520</b> THEORY AND PRACTICE-SOFTENGIN  <i>Heather Conboy</i>	UNDERGRADUATES: COMPSCI 320 (OR COMPSCI 220 AND COMPSCI 326) WITH C OR BETTER.	LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY.	LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. SEATS HELD IN LEC 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/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 532</b> SYSTEMS FOR DATA SCIENCE  <i>Peter Klemperer</i>	UNDERGRADUATES: COMPSCI 377 AND COMPSCI 445, BOTH WITH A GRADE OF C OR BETTER.	UNIV LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. UNIV LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY. U+ LEC 01: ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY.	UNIV LEC 01 FOR UNDERGRADS; UNIV LEC 02 FOR ELIGIBLE GRADS; SEATS HELD IN LEC 02 FOR INCOMING STUDENT REGISTRATION. U+ LEC 01 FOR ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY. COURSE IS ONLINE WITH SYNCHRONOUS LIVE LECTURES ON MW 2:30-3:45 PM EDT. PHDS OR ANY STUDENT WITH A TUITION WAIVER CANNOT ENROLL IN A U+ SECTION. PHD OR OTHER GRADUATE LEVEL STUDENTS WHO NEED A UNIVERSITY COURSE SHOULD REGISTER IN UNIV LEC 02. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 535</b> COMPUTER ARCHITECTURE  <i>Charles Weems</i>	UNDERGRADUATES: COMPSCI 335 WITH A GRADE OF C OR BETTER.	LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY.	LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. SEATS HELD IN LEC 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/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 546</b> APPLIED INFORMATION RETRIEVAL  <i>Hamed Zamani</i>	UNDERGRADUATES: COMPSCI 320 (OR COMPSCI 326) AND COMPSCI 383 (OR COMPSCI 389 OR COMPSCI 446 OR COMPSCI 485 OR COMPSCI 585) BOTH WITH C OR BETTER.	LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY.	LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. SEATS SAVED IN LEC 02 FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<b>COMPSCI 561</b> SYSTEM DEFENSE AND TEST  <i>Parviz Kermani</i>	UNDERGRADUATES: COMPSCI 360 (OR COMPSCI 460 OR COMPSCI 560 OR COMPSCI 660 OR E&C-ENG 371) AND COMPSCI 453 (OR E&C-ENG 325), BOTH WITH A GRADE OF C OR BETTER.	UNIV LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. UNIV LEC 02: GRADUATE CMPSCI AND ECE STUDENTS ONLY. U+ LEC 01: GRADUATE CMPSCI STUDENTS ONLY.	UNIV LEC 01 FOR UNDERGRADS; UNIV LEC 02 FOR GRADS. IF AVAILABLE SEATS, ELIGIBLE CSENG MAJORS WITH ECE 371 AND ECE 325 MUST WAIT FOR COURSE TO OPEN TO SELF-ENROLL (DO NOT REQUEST OVERRIDES). U+ LEC 01: ONLINE COURSE FOR GRADUATE CMPSCI STUDENTS ONLY. GRADUATE STUDENTS FROM OTHER DEPARTMENTS 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/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>

## SPIRE REGISTRATION INFORMATION for 2025 Spring

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

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

**COMPSCI 564**  
CYBER EFFECTS  
  
*Jeffrey Hamalainen, Seth Landsman, Nick Merlino, Corre Steele, Edward Walters, Adam Woodbury*

UNDERGRADUATES: COMPSCI 230 (OR E&C-ENG 322) AND COMPSCI 360 (PREVIOUSLY COMPSCI 460 OR COMPSCI 365 OR COMPSCI 390R OR COMPSCI 466 OR E&C-ENG 371), BOTH WITH A GRADE OF C OR BETTER.

UNIV LEC 01: JUNIORS AND SENIORS ONLY.  
UNIV LEC 02: GRADUATE CMPSCI AND ECE STUDENTS ONLY.  
U+ LEC 01: GRADUATE CMPSCI STUDENTS ONLY.

UNIV LEC 01 FOR UNDERGRADS; UNIV LEC 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 COMPSCI 360, WITH PERMISSION OF INSTRUCTOR. SEATS HELD IN LEC 02 FOR INCOMING STUDENT REGISTRATION. GRADUATE STUDENTS FROM OTHER DEPARTMENTS WITH INSTRUCTOR PERMISSION, IF AVAILABLE SEATS. U+ LEC 01: OTHER GRADUATE STUDENTS MAY BE CONSIDERED WITH INSTRUCTOR PERMISSION. SYNCHRONOUSLY REMOTE ATTENDANCE VIA ZOOM REQUIRED. STUDENTS SHOULD ATTEND ALL LECTURE SESSIONS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 565**  
ADV DIGITAL FORENSIC SYSTEMS  
  
*Peter Klemperer*

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

UNIV LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY.  
UNIV LEC 02: GRADUATE CMPSCI AND ECE STUDENTS ONLY.  
U+ LEC 01: GRADUATE CMPSCI STUDENTS ONLY.

STUDENTS WHO HAVE COMPLETED COMPSCI 590F ARE NOT ELIGIBLE FOR THIS COURSE. UNIV LEC 01 FOR UNDERGRADS; UNIV LEC 02 FOR GRADS. CLASS IS ONLINE. CANVAS WILL BE USED AND ECHO360 FOR LECTURE VIDEO DISTRIBUTION. SENIOR AND JUNIOR CSENG MAJORS WITH APPROPRIATE BACKGROUND WITH INSTRUCTOR PERMISSION, IF AVAILABLE SEATS. U+ LEC 01 FOR ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 571**  
DATA VISUALIZATION&EXPLORATION  
  
*Hamza Mohamed Elhamdadi*

UNDERGRADUATES: COMPSCI 220 (OR COMPSCI 230 OR COMPSCI 326), WITH A GRADE OF C OR BETTER.

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

LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. SEATS HELD IN LEC 01 FOR JUNIOR AND SENIOR INFORM MAJORS AND IN LEC 02 FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 589**  
MACHINE LEARNING  
  
*Bruno Castro da Silva,*

UNDERGRADUATES: [ MATH 545 AND STATISTICS 315 (PREVIOUSLY STATISTICS 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 STATISTICS 315 (PREVIOUSLY STATISTICS 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. ]

UNIV LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY.  
UNIV LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY.

LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. SEATS HELD IN LEC 02 FOR INCOMING GRAD STUDENT REGISTRATION. U+ LEC 01 FOR ONLINE MS-CMPSCI ONLY. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 590AB**  
QUANTUM CRYPTOGRAPHY  
  
*Filip Rozpedek*

UNDERGRADUATES: MATH 132 AND MATH 235 AND COMPSCI 240 (OR STATISTIC 315/515 OR PHYSICS 281 OR PHYSICS 287), ALL WITH A GRADE OF C OR BETTER.

LEC 01: SENIOR CS, MATH, PHYSICS, AND EE MAJORS ONLY.  
LEC 02: CMPSCI GRADUATE STUDENTS ONLY.

MEETS WITH COMPSCI 690BB. LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. STUDENTS WHO TAKE THIS COURSE CANNOT SIMULTANEOUSLY, NOR LATER, ENROLL IN 690BB. SWAPPING BETWEEN 590AB AND 690BB IS ONLY CONSIDERED BEFORE THE END OF ADD/DROP. SEATS HELD FOR INCOMING GRADUATE STUDENT REGISTRATION. TITLE/DESCRIPTION CHANGE, EFFECTIVE SPRING 2025. THERE WILL BE CERTAIN OVERLAP WITH COMPSCI 490Q QUANTUM INFORMATION SCIENCE AND COMPSCI 690Q QUANTUM INFORMATION SYSTEMS. WHILE THIS COURSE BUILDS ON SOME OF THE CONCEPTS INTRODUCED IN THOSE COURSES, IT INTRODUCES ALL OF THEM INDEPENDENTLY SO NO KNOWLEDGE OF QUANTUM INFORMATION IS NECESSARY, THOUGH IT WOULD BE HELPFUL. THIS COURSE COUNTS TOWARDS THE MS SECURITY CONCENTRATION AND THE GRADUATE CERTIFICATE IN INFORMATION SECURITY. MATH, PHYSICS, AND EE GRADUATE STUDENTS SHOULD REQUEST AN OVERRIDE FOR CONSIDERATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 590AE**  
MOBILE AND WIRELESS NETWORKS  
  
*James Kurose*

UNDERGRADUATE PREREQUISITE: COMPSCI 453 OR E&C-ENG 374 WITH A GRADE OF C OR BETTER.

U1 LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY.  
U1 LEC 02: MS-CMPSCI STUDENTS ONLY.  
UO1 LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY.  
UO1 LEC 02: MS-CMPSCI STUDENTS ONLY  
U+ LEC 01: MS-CMPSCI ONLINE PROGRAM STUDENTS ONLY.

U1 LEC 01 IS AN IN-PERSON SECTION FOR UNDERGRADS; U1 LEC 02 IS AN IN-PERSON SECTION FOR GRADS; UO1 LEC 01 IS A FULLY ONLINE SECTION FOR UNDERGRADS AND UO1 LEC 02 IS A FULLY ONLINE SECTION FOR GRADS. ONLINE STUDENTS ARE REQUIRED TO PARTICIPATE AT THE SCHEDULED MEETING TIME. SYNCHRONOUS ATTENDANCE IS MANDATORY. AIMED MORE AT CS STUDENTS RATHER THAN EE STUDENTS. ASSUMES STUDENTS HAVE ALREADY HAD AN INTRODUCTORY NETWORKING COURSE (I.E., COMPSCI 453, E&C-ENG 374, OR EQUIVALENT). COURSE WILL OPEN TO EE MAJORS MEETING PREREQUISITE, IF AVAILABLE SEATS. EE MAJORS SHOULD WAIT FOR ELIGIBILITY TO OPEN TO SELF-ENROLL OR ADD TO THE WAITLIST AND SHOULD NOT REQUEST AN OVERRIDE. SEATS HELD FOR INCOMING GRADUATE STUDENT REGISTRATION. U+ LEC 01 FOR MS-CMPSCI ONLINE PROGRAM STUDENTS ONLY. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 590AF**  
REV ENGG&UNDRSTNDG EXPLOIT DEV  
  
*Lurene Grenier*

UNDERGRADUATE PREREQUISITE: COMPSCI 230 (OR E&C-ENG 322) WITH A GRADE OF C OR BETTER.

LEC 01: JUNIOR AND SENIOR CS, INFORM AND CSENG MAJORS ONLY.  
LEC 02: MS-CMPSCI STUDENTS ONLY.

MEETS WITH COMPSCI 367 (PREVIOUSLY 390R) BEGINNING SPRING 2025. LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. ALTHOUGH OPEN TO INFORM MAJORS, THIS COURSE IS NOT ON THE LIST OF PRE-APPROVED INFORM ELECTIVES. SEATS HELD FOR INCOMING GRADUATE STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

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### PREREQUISITES

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**COMPSCI 590QC**  
QUANTUM COMMUNICATION  
*Gayane Vardoyan*

UNDERGRADUATE PREREQUISITE: MATH 235 AND COMPSCI 240 (OR STATISTC 315/515), BOTH WITH A GRADE OF C OR BETTER.

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

MEETS WITH COMPSCI 690QC. LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. STUDENTS CAN ONLY RECEIVE CREDIT FOR EITHER 590QC OR 690QC, NOT BOTH, REGARDLESS OF SEMESTER. SWAPPING BETWEEN 590QC AND 690QC IS ONLY CONSIDERED BEFORE THE END OF ADD/DROP. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. FAMILIARITY WITH PROBABILITY THEORY, LINEAR ALGEBRA, AND COMPLEX NUMBERS. NO PRIOR FAMILIARITY WITH QUANTUM CONCEPTS NEEDED. PHYSICS STUDENTS SHOULD WAIT UNTIL OPEN TO SELF-ENROLL. ALTHOUGH NOT ON THE LIST OF PRE-APPROVED INFORM ELECTIVES, INTERESTED JUNIOR AND SENIOR INFORM MAJORS MEETING PREREQUISITE WILL BE CONSIDERED VIA OVERRIDE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 596E**  
IS-ML APPLIED TO CHILD RESCUE  
*Brian Levine*

UNIV LEC 01: SENIOR CS MAJORS AND CS GRADUATE STUDENTS ONLY.  
UWW LEC 01: ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY.

MEETS WITH COMPSCI 496E. INSTRUCTOR PERMISSION REQUIRED. CS SENIOR OR CS GRADUATE STUDENT WITH A MACHINE LEARNING BACKGROUND. WE EXPECT HIGH GRADES IN COMPSCI 589 OR COMPSCI 682. PHDS OR ANY STUDENT WITH A TUITION WAIVER CANNOT ENROLL IN A UWW SECTION. ONLINE SYNCHRONOUS MEETINGS ARE REQUIRED. CONTACT INSTRUCTOR FOR CONSIDERATION AT [brian@cs.umass.edu](mailto:brian@cs.umass.edu).

**COMPSCI 603**  
ROBOTICS  
*Hao Zhang*

COMPSCI AND ECE 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/academics/course-overrides>

**COMPSCI 611**  
ADVANCED ALGORITHMS  
*Hedyeh Beyhaghi*

COMPSCI GRADUATE STUDENTS ONLY.

MATHEMATICAL MATURITY WITH KNOWLEDGE OF ALGORITHMS AT THE LEVEL OF COMPSCI 311 EXPECTED OF INCOMING CS GRADUATE STUDENTS. 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/academics/course-overrides>

**COMPSCI 627**  
FIXING SOCIAL MEDIA  
*Ethan Zuckerman*

COMPSCI GRADUATE STUDENTS ONLY.

CROSS-LISTED WITH COMM 627 AND SPP 627. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 645**  
DB DSGN & IMPLMNTN  
*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/academics/course-overrides>

**COMPSCI 651**  
OPTIMIZATION IN CS  
*Madalina Fiterau Brostean*

GRADUATE COMPSCI 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 GRADE OF 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. UO1 LEC 01 FOR GRADUATE COMPSCI STUDENTS ONLY; U+ LEC 01 FOR MS-CMPSCI PROGRAM 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/academics/course-overrides>

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

U1 LEC 01: GRADUATE COMPSCI AND ECE STUDENTS ONLY.  
UO1 LEC 01: GRADUATE COMPSCI STUDENTS ONLY.  
U+ LEC 01: ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY.

LECTURES AVAILABLE BOTH SYNCHRONOUSLY AND ASYNCHRONOUSLY. LECTURE RECORDINGS ARE AVAILABLE TO ALL STUDENTS IMMEDIATELY AFTER EACH CLASS. 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 U+ SECTION. U1 LEC 01: IN-PERSON, OPEN TO GRADUATE COMPSCI AND ECE STUDENTS. UO1 LEC 01: ONLINE, OPEN TO GRADUATE COMPSCI STUDENTS. U+ LEC 01: ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>



## SPIRE REGISTRATION INFORMATION for 2025 Spring

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

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

**COMPSCI 682**  
NEURAL NETWORKS:MODERN INTRO  
*Chuang Gan*

UNIV LEC 01: CMPSCI GRADUATE STUDENTS ONLY.  
UWW LEC 01: ONLINE MS-CMPSCI GRADUATE PROGRAM STUDENTS ONLY.

U1 LEC 01 FOR ELIGIBLE GRADS; SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. U+ LEC 01 FOR ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY. PHDS OR ANY STUDENT WITH A TUITION WAIVER CANNOT ENROLL IN A U+ SECTION. BOTH SECTIONS FULLY ONLINE WITH OPTIONAL SYNCHRONOUS LIVE LECTURES TUE 10AM-NOON. REQUIRED BACKGROUND FOR THE COURSE INCLUDES THE FOLLOWING: MULTIVARIATE CALCULUS, LINEAR ALGEBRA, AND PROBABILITY AND STATISTICS. PROGRAMMING IN PYTHON OR EQUIVALENT HIGH LEVEL LANGUAGE. UNDERGRADUATES AND STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 683**  
ARTIFICIAL INTELLIGENCE  
*Yair Zick*

GRADUATE CMPSCI STUDENTS ONLY.

STUDENTS WHO HAVE TAKEN AN UNDERGRADUATE AI COURSE PREFERRED. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 685**  
ADV NATURAL LANG PROCESSING  
*Haw-Shiuan Chang*

GRADUATE CMPSCI 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/academics/course-overrides>

**COMPSCI 690BB**  
QUANTUM CRYPTOGRAPHY  
*Filip Rozpedek*

CMPSCI GRADUATE STUDENTS ONLY.

MEETS WITH COMPSCI 590AB. SEATS HELD FOR INCOMING GRADUATE STUDENT REGISTRATION. STUDENTS WHO TAKE THIS COURSE CANNOT SIMULTANEOUSLY, NOR LATER, ENROLL IN 590AB. SWAPPING BETWEEN 590AB AND 690BB IS ONLY CONSIDERED BEFORE THE END OF ADD/DROP. THERE WILL BE CERTAIN OVERLAP WITH COMPSCI 490Q QUANTUM INFORMATION SCIENCE AND COMPSCI 690Q QUANTUM INFORMATION SYSTEMS. WHILE THIS COURSE BUILDS ON SOME OF THE CONCEPTS INTRODUCED IN THOSE COURSES, IT INTRODUCES ALL OF THEM INDEPENDENTLY SO NO KNOWLEDGE OF QUANTUM INFORMATION IS NECESSARY, THOUGH IT WOULD BE HELPFUL. MATH, PHYSICS, AND EE GRADUATE STUDENTS SHOULD REQUEST AN OVERRIDE FOR CONSIDERATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 690G**  
SECURITY FOR LARGE-SCALE SYSTEMS  
*Pubali Datta*

GRADUATE CMPSCI STUDENTS ONLY.

SEATS SAVED FOR INCOMING GRADUATE STUDENT REGISTRATION. UNDERGRADUATE BACKGROUND IN COMPUTER SCIENCE IS ASSUMED TO INCLUDE OPERATING SYSTEMS (COMPSCI 377 OR EQUIVALENT). PROGRAMMING KNOWLEDGE AND PRINCIPLES OF COMPUTER SYSTEMS DESIGN KNOWLEDGE IS EXPECTED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 690QC**  
QUANTUM COMMUNICATION  
*Gayane Vardoyan*

CMPSCI GRADUATE STUDENTS ONLY.

MEETS WITH COMPSCI 590QC. STUDENTS CAN ONLY RECEIVE CREDIT FOR EITHER 590QC OR 690QC, NOT BOTH. SWAPPING BETWEEN 590QC AND 690QC IS ONLY CONSIDERED BEFORE THE END OF ADD/DROP. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. FAMILIARITY WITH PROBABILITY THEORY, LINEAR ALGEBRA, AND COMPLEX NUMBERS. NO PRIOR FAMILIARITY WITH QUANTUM CONCEPTS NEEDED. PHYSICS STUDENTS SHOULD WAIT UNTIL OPEN TO SELF-ENROLL. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 690R**  
CMPTNG-DIGI BIOMRKRS IN HLTHCR  
*Sunghoon Lee*

CMPSCI GRADUATE STUDENTS ONLY.

THERE ARE NO FORMAL PREREQUISITES FOR GRADUATE STUDENTS, BUT INFORMALLY, STUDENTS SHOULD BE FAMILIAR WITH STATISTICS AND MACHINE LEARNING. KNOWLEDGE OF HEALTH DATA OR MEDICINE IS NOT A PREREQUISITE; THIS COURSE IS DESIGNED TO INTRODUCE THE CONCEPTS OF HEALTH AND MEDICAL DATA. SEATS SAVED FOR INCOMING GRADUATE STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**COMPSCI 690U**  
COMPUTNL BIOL AND BIOINFORMTCS  
*Anna Green*

GRADUATE CMPSCI STUDENTS ONLY.

PROFICIENCY IN PYTHON PROGRAMMING AS WELL AS UNDERGRADUATE-LEVEL UNDERSTANDING OF STATISTICS, MACHINE LEARNING, AND LINEAR ALGEBRA IS ASSUMED. THE COURSE ASSUMES NO PRIOR KNOWLEDGE OF BIOLOGY. MAY ALSO BE SUITABLE FOR GRADUATE STUDENTS IN BIOLOGY-RELATED DISCIPLINES WHO HAVE STRONG COMPUTATIONAL SKILLS. INTERESTED GRADUATE STUDENTS IN OTHER DISCIPLINES, ESPECIALLY BIOLOGY, SHOULD DESCRIBE THEIR BACKGROUND TO HANDLE COMPUTATIONAL REQUIREMENTS ON THE OVERRIDE FORM FOR INSTRUCTOR REVIEW. SEATS HELD FOR INCOMING GRADUATE STUDENT REGISTRATION. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>

**SPIRE REGISTRATION INFORMATION for 2025 Spring**

PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<p><b>COMPSCI 6910</b> S-TOOLS-EXPLANATORY/TUTRNG SYS <i>Beverly Woolf</i></p>	GRADUATE STUDENTS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<p><b>COMPSCI 692DQ</b> S-TOPICS-DISTRB QUANTUM CMPTNG <i>Donald Towsley, Gayane Vardoyan</i></p>	CMPSCI AND ECE GRADUATE STUDENTS ONLY.	SEC 01=3 CREDITS; SEC 02=1 CREDIT. STUDENTS TAKING FOR 3 CREDITS ARE EXPECTED TO PROPOSE AND COMPLETE A PROJECT. GRADUATE STUDENTS EXPECTED TO HAVE COMPLETED COMPSCI 590AB, COMPSCI 642, OR ECE 550/660, OR EQUIVALENT. IF UNSURE, CONTACT INSTRUCTOR TO DISCUSS BACKGROUND. UNDERGRADUATE STUDENTS COMPLETING COMPSCI 490Q WITH A GRADE OF C OR BETTER, OR ONE OF THE OTHER COURSES LISTED, AS WELL AS UPD AND INSTRUCTOR PERMISSION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<p><b>COMPSCI 692EF</b> S-EMBEDDED MODELS FOR IOT <i>Deepak Ganesan, Phuc Nguyen</i></p>	CMPSCI GRADUATE STUDENTS ONLY.	SECT 01=3 CREDITS; SECT 02=1 CREDIT. EXAMPLE TOPICS WE WILL COVER INCLUDE: APPLICATION DOMAINS IN HEALTH AND WEARABLES, SYSTEMS OPTIMIZATIONS AND ARCHITECTURE, IOT APPLICATIONS AND ENVIRONMENTS. THE COURSE WILL PRIMARILY CONSIST OF PAPER READINGS, PRESENTATIONS, AND DISCUSSIONS. STUDENTS WILL CRITICALLY EXAMINE RECENT ADVANCES IN THE FIELD THROUGH BOTH ACADEMIC PAPERS AND INDUSTRY DEVELOPMENTS. FOR 3-CREDIT OPTION, A SEMESTER-LONG RESEARCH PROJECT IS REQUIRED, INVOLVING EITHER THE DEVELOPMENT OF A NOVEL APPLICATION USING FOUNDATION MODELS ON WEARABLE PLATFORMS OR THE IMPLEMENTATION OF OPTIMIZATION TECHNIQUES FOR EMBEDDED DEPLOYMENT. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<p><b>COMPSCI 692L</b> S-NATURAL LANGUAGE PROCESSING <i>Brendan O'Connor</i></p>	GRAD STUDENTS ONLY.	MAY BE REPEATED FOR CREDIT UP TO 3 TIMES. COURSE IS RECOMMENDED FOR GRAD STUDENTS WITH NLP BACKGROUND. SYNCHRONOUS MEETINGS ARE REQUIRED.
<p><b>COMPSCI 692PA</b> S-PRIV&amp;SECURTY-GENERATV MODELS <i>Eugene Bagdasarian</i></p>	CMPSCI GRADUATE STUDENTS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<p><b>COMPSCI 696DS</b> IS-DATA SCIENCE <i>Andrew McCallum</i></p>	GRADUATE MS-CMPSCI STUDENTS ONLY.	BY THE END OF THE CURRENT FALL SEMESTER, STUDENTS MUST HAVE COMPLETED AT LEAST TWO OF THE DATA SCIENCE CORE REQUIREMENTS AND HAVE AN OVERALL GPA OF 3.0 OR HIGHER. PERMISSION OF INSTRUCTOR IS REQUIRED. MS-CMPSCI STUDENTS ARE EMAILED INSTRUCTIONS ON HOW TO APPLY FOR CONSIDERATION.
<p><b>COMPSCI 701</b> ADV TOPICS IN CMPSCI</p>	DOCTORAL, MASTERS GRADUATE CMPSCI 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 COMPLETED OVER TWO SEMESTERS WITH ENROLLMENT IN ONLY ONE 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 879</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 THE ASSOCIATE DIRECTOR GRADUATE PROGRAMS AFTER SIGNED AND APPROVED CONTRACT. OPEN TO CICS TEACHING ASSISTANTS ONLY.

**SPIRE REGISTRATION INFORMATION for 2025 Spring**

PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<p><b>COMPSCI 891M</b> S-THEORY OF COMPUTATION  <i>Yair Zick</i></p>		DOCTORAL, MASTERS GRADUATE STUDENTS ONLY.  MAY BE REPEATED FOR CREDIT UP TO 6 TIMES. UNDERGRADUATES AND OTHER STUDENTS NOT MEETING ELIGIBILITY MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<p><b>COMPSCI 899</b> PHD DISSERTATION</p>		COURSE OPEN ONLY TO CS GRADUATE STUDENTS WHO HAVE ACHIEVED CANDIDACY. REQUEST ENROLLMENT VIA THE SPECIAL ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/academic-policies/graduate-programs-policies/graduate-student-forms">https://www.cics.umass.edu/academics/academic-policies/graduate-programs-policies/graduate-student-forms</a>
<p><b>COMPSCI H311</b> HNRS COLLOQ: INTRO ALGORITHMS  <i>Marius Minea</i></p>	<b>CICS 210 (OR 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].</b>	COMMONWEALTH HONORS COLLEGE JUNIOR AND SENIOR CS MAJORS ONLY.  DEPARTMENT CONSENT REQUIRED. NO OPTION FOR PASS/FAIL. STUDENTS MUST BE ENROLLED IN COMPSCI 311 (OR HAVE COMPLETED COMPSCI 311 WITH A GRADE OF B OR BETTER). INTERESTED STUDENTS MUST REQUEST OVERRIDE VIA ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<p><b>COMPSCI H345</b> HNRS COLLOQ: PRAC&amp;APP-DATA MGT  <i>Gordon Anderson</i></p>	<b>CS MAJORS: CICS 210 (OR COMPSCI 187) WITH A GRADE OF C OR BETTER [OR COMPSCI 345 WITH A GRADE OF B OR BETTER]. INFORM MAJORS: INFO 248 AND CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 186 OR COMPSCI 187), BOTH WITH A GRADE OF C OR BETTER [OR COMPSCI 345 WITH A GRADE OF B OR BETTER].</b>	COMMONWEALTH HONORS COLLEGE JUNIOR AND SENIOR CS AND INFORMATICS MAJORS ONLY.  NO OPTION FOR PASS/FAIL. DEPARTMENT CONSENT REQUIRED. STUDENTS MUST BE ENROLLED IN COMPSCI 345 (OR HAVE COMPLETED COMPSCI 345 WITH A GRADE OF B OR BETTER). REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<p><b>INFO 150</b> MATH FOUND-INFORMATICS  <i>Chloe Becquey</i></p>		Open to undergraduates in majors OTHER THAN Computer Science and Math + Statistics.  CS AND MATH (STATISTICS) MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. AFTER INFORM MAJORS REGISTER, INFO 150 WILL OPEN TO ALL NON-CS AND NON-MATH/STATS UNDERGRADUATES WHO SHOULD WAIT FOR THE MAJOR ELIGIBILITY RESTRICTION TO BE REMOVED TO SELF-ENROLL OR ADD TO THE WAITLIST (IF AVAILABLE) AND SHOULD NOT REQUEST AN OVERRIDE. ANTICIPATED OPENING DURING THE FIRST WEEK OF CLASSES. 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/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<p><b>INFO 203</b> A NETWORKED WORLD  <i>Mohammadhassan Hajjesmaili</i></p>		UNDERGRADS NOT MAJORING IN COMPSCI  CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. AFTER INFORM MAJORS REGISTER, INFO 203 WILL OPEN TO ALL NON-CS UNDERGRADUATES WHO SHOULD WAIT FOR THE MAJOR ELIGIBILITY RESTRICTION TO BE REMOVED TO SELF-ENROLL OR ADD TO THE WAITLIST (IF AVAILABLE) AND SHOULD NOT REQUEST AN OVERRIDE. ANTICIPATED OPENING DURING THE FIRST WEEK OF CLASSES. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<p><b>INFO 248</b> INTRO TO DATA SCIENCE  <i>Gordon Anderson</i></p>	CICS 110 (OR CICS 160 OR COMPSCI 119 OR COMPSCI 121) WITH A GRADE OF C OR BETTER, AND EITHER PSYCH 240, OIM 240, STATISTC 240, RES-ECON 212, SOCIOL 212, OR STATISTC 315/515, OR COMPSCI 240, 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/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a>
<p><b>INFO 348</b> DATA ANALYTICS WITH PYTHON  <i>Jayant Taneja</i></p>	INFO 248 AND CICS 160 (OR INFO 190T OR COMPSCI 186 OR COMPSCI 187), BOTH WITH A GRADE OF C OR BETTER.	INFORM MAJORS ONLY.  <b>PREVIOUSLY CICS 397A. LINEAR ALGEBRA (MATH 235) IS HELPFUL BUT NOT REQUIRED. STUDENTS WITH ALTERNATE PROGRAMMING OR STATISTICS BACKGROUND MAY REQUEST OVERRIDE FOR CONSIDERATION. A PREREQUISITE CHANGE HAS BEEN APPROVED BY THE FACULTY SENATE TO REPLACE CICS 210 WITH CICS 160. AFTER INFORM MAJORS REGISTER, INFO 348 WILL OPEN TO ALL UNDERGRADUATES, IF AVAILABLE SEATS. STUDENTS MEETING PREREQUISITE SHOULD WAIT FOR THE MAJOR ELIGIBILITY RESTRICTION TO BE REMOVED TO SELF-ENROLL OR ADD TO THE WAITLIST (IF AVAILABLE) AND SHOULD NOT REQUEST AN OVERRIDE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/academics/course-overrides">https://www.cics.umass.edu/academics/course-overrides</a></b>

**SPIRE REGISTRATION INFORMATION for 2025 Spring**

**PREREQUISITES**

**ELIGIBILITY RESTRICTIONS**

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

**INFO**      **490PI**  
PERSONAL HEALTH INFORMATICS  
*Ravi Karkar*

INFO 248 (OR COMPSCI 240) WITH A C OR BETTER AND CICS 210 (OR COMPSCI 186 OR COMPSCI 187) WITH A C OR BETTER.

JUNIOR AND SENIOR INFORM MAJORS ONLY.

NO PASS/FAIL OPTION. SATISFIES INTEGRATIVE EXPERIENCE REQUIREMENT FOR CS AND INFORM MAJORS. ALSO SATISFIES A CS400 ELECTIVE FOR CS MAJORS. BEGINNING SPRING 2024, GRADES OF C OR BETTER ARE REQUIRED IN PREREQUISITES. WILL OPEN TO JUNIOR AND SENIOR CS MAJORS AFTER JUNIOR AND SENIOR INFORM MAJORS ARE GIVEN OPPORTUNITY TO ENROLL. ELIGIBLE CS MAJORS SHOULD NOT REQUEST AN OVERRIDE, BUT WAIT FOR ELIGIBILITY TO OPEN TO SELF-ENROLL. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/academics/course-overrides>