

## SPIRE REGISTRATION INFORMATION for 2024 Fall

### PREREQUISITES

### ELIGIBILITY RESTRICTIONS

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

**CICS 110**  
FOUNDATIONS OF PROGRAMMING  
*Meng-Chieh Chiu, Ghazaleh Parvini, Cole Reilly, STAFF*

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.

FRESHMEN, SOPHOMORE AND JUNIOR CS AND INFORM MAJORS ONLY.

PREVIOUSLY INFO 190S. STUDENTS ARE NOT PERMITTED TO TAKE CICS 110 AFTER SUCCESSFULLY COMPLETING COMPSCI 121 OR INFO 190S. A PREREQUISITE CHANGE TO ALLOW STUDENTS WITH A MATH PLACEMENT TEST (MPT) SCORE OF 15 OR HIGHER HAS BEEN APPROVED, EFFECTIVE SUMMER 2023. AFTER ELIGIBLE CS AND INFORM 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 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: <https://www.cics.umass.edu/overrides>.

**CICS 160**  
OBJECT-ORIENTED PROGRAMMING  
*Jaime Davila, Cole Reilly*

CICS 110 (PREVIOUSLY INFO 190S) OR COMPSCI 121 WITH A GRADE OF C OR BETTER.

FRESHMEN, SOPHOMORE AND JUNIOR CS AND INFORM MAJORS ONLY.

PREVIOUSLY INFO 190T. STUDENTS ARE NOT PERMITTED TO TAKE CICS 160 AFTER SUCCESSFULLY COMPLETING COMPSCI 186 OR INFO 190T. USE OF PERSONAL LAPTOP IN CLASS IS REQUIRED. AFTER ELIGIBLE CS AND INFORM MAJORS HAVE ENROLLED, WILL OPEN TO ELIGIBLE NON-CS AND NON-INFORM MAJORS, IF AVAILABLE SEATS. ELIGIBLE NON-MAJORS 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: <https://www.cics.umass.edu/overrides>.

**CICS 208**  
DEFEND DEMOCRACY-DIGITAL WORLD  
*Ethan Zuckerman*

PREVIOUSLY CICS 297DP. CROSS-LISTED WITH SPP 208 AND COMM 208. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>

**CICS 210**  
DATA STRUCTURES  
*Mordecai Golin, Timothy Richards*

CICS 160 (PREVIOUSLY INFO 190T) WITH A GRADE OF C OR BETTER.

FRESHMEN, SOPHOMORE AND JUNIOR CS AND INFORM MAJORS ONLY.

STUDENTS ARE NOT PERMITTED TO TAKE CICS 210 AFTER SUCCESSFULLY COMPLETING COMPSCI 187. AFTER ELIGIBLE CS AND INFORM 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 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: <https://www.cics.umass.edu/overrides>.

**CICS 237**  
INTRO RESRCH IN THE DISCIPLINE  
*Neena Thota*

PREVIOUSLY CICS 290A. ERSP PROGRAM PARTICIPANTS ONLY. STUDENTS CAN APPLY DURING THE APPLICATION PERIOD AND BE ACCEPTED TO THE PROGRAM AT THE END OF THEIR FIRST YEAR (SPRING TERM). THEY ARE THEN ENROLLED IN THIS COURSE IN THE FALL OF THE SECOND YEAR. STUDENTS DO NOT SELF ENROLL IN THIS COURSE. PROGRAM PARTICIPANTS INTERESTED IN ENROLLING SHOULD CONTACT INSTRUCTOR WHO WILL PROVIDE CICS ACADEMIC PROGRAMS WITH A LIST FOR REGISTRATION.

**CICS 256**  
MAKE: PHYSICAL COMPUTING  
*Rui Wang*

CICS 210 (OR COMPSCI 187) WITH A GRADE OF C OR BETTER AND BASIC MATH SKILLS (R1).

FRESHMEN AND SOPHOMORE 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: <https://www.cics.umass.edu/overrides>.

**CICS 291T**  
S-CICS TRANSFER SUCCESS  
*Emma Anderson*

DEPARTMENT CONSENT REQUIRED: OPEN TO INCOMING CS AND INFORM TRANSFER STUDENTS ONLY.

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

CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 186 OR COMPSCI 187) WITH A GRADE OF C OR BETTER.

FRESHMEN, SOPHOMORE, AND JUNIOR CS AND INFORM MAJORS ONLY.

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

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<b>CICS 305</b> SOC ISS IN CMPTNG  <i>Erin Butler, Elizabeth Gunther, Siobhan Mei, Justin Obara, STAFF, Christina Sutcliffe, Michelle Trim</i>	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.	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.	SATISFIES JUNIOR YEAR WRITING REQUIREMENT. ODD LECTURES FOR CS MAJORS; EVEN LECTURES FOR INFORM MAJORS. ELIGIBILITY LIMITED TO CS AND INFORMATICS PRIMARY MAJORS ONLY. CS AND INFORMATICS 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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>CICS 398T</b> P-CPT		UNDERGRADUATE CS MAJORS ONLY.	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://www.cics.umass.edu/careers/articles/cpt-process-internships">https://www.cics.umass.edu/careers/articles/cpt-process-internships</a>
<b>CICS 580</b> INTRO NUMRICAL CMPTNG W/PYTHON  <i>Ali MontazerAlghaem</i>		GRADUATE STUDENTS ONLY.	ONLINE OFFERING. COURSE RUNS FOR 6 WEEKS (9/3/24-10/11/24). FAMILIARITY WITH UNDERGRADUATE-LEVEL PROBABILITY, STATISTICS, AND LINEAR ALGEBRA WILL BE ASSUMED. UNDERGRADUATES WHO HAVE COMPLETED COMPSCI 240 AND MATH 235 WITH PERMISSION OF INSTRUCTOR. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>CICS 598T</b> P-CPT		GRADUATE CMPSCI STUDENTS ONLY.	COMPUTER SCIENCE GRADUATE STUDENTS INTERESTED IN PURSUING CPT MUST SUBMIT A HANDSHAKE APPLICATION FOUND ON THE CICS CAREERS WEB PAGE. 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://www.cics.umass.edu/careers/articles/cpt-process-internships">https://www.cics.umass.edu/careers/articles/cpt-process-internships</a>
<b>COMPSCI 119</b> INTRO PROGRAMMING  <i>Allison Poh</i>		UNDERGRADUATE NON-CS MAJORS ONLY.	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 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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 198C</b> P-INTRO-C PROGRAMMING LANGUAGE  <i>Meng-Chieh Chiu, Timothy Richards</i>	COMPSCI 121 WITH A GRADE OF B OR BETTER, OR CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 186) WITH A GRADE OF C OR BETTER.	FRESHMEN, SOPHOMORE, AND JUNIORS ONLY.	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, BUT NON-CS MAJORS SHOULD REFRAIN FROM REQUESTING OVERRIDE UNTIL MAJOR RESTRICTION IS REMOVED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 220</b> PGMG METHODOLOGY  <i>Marius Minea</i>	CICS 210 (OR COMPSCI 187) WITH A GRADE OF C OR BETTER.	CS MAJORS ONLY.	SEATS ARE BEING SAVED FOR INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD AT THE END OF JULY. 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/overrides">https://www.cics.umass.edu/overrides</a> .
<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 AT THE END OF JULY. 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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 240</b> RSNL UNDER UNCERTAINTY  <i>Shiting Lan, Ghazaleh Parvini</i>	CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 187) AND MATH 132, BOTH WITH A GRADE OF C OR BETTER.	CS MAJORS ONLY.	SEATS ARE BEING SAVED FOR INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD AT THE END OF JULY. 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/overrides">https://www.cics.umass.edu/overrides</a> .

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<b>COMPSCI 250</b> INTRO TO COMPUTATION  <i>David Barrington, Mordecai Golin</i>	CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 187 OR ECE 241) AND MATH 132, BOTH WITH A GRADE OF C OR BETTER.	CS AND MATH MAJORS ONLY.	SEATS ARE BEING SAVED FOR INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD AT THE END OF JULY. 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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 311</b> INTRO TO ALGORITHMS  <i>Ghazaleh Parvini, Hava Siegelmann</i>	CICS 210 (OR COMPSCI 187) AND COMPSCI 250 (OR MATH 455), BOTH WITH A GRADE OF C OR BETTER.	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 AT THE END OF JULY. 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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 320</b> INTRO TO SOFTWARE ENGINEERING  <i>Gordon Anderson, Yuriy Brun, Heather Conboy, Jaime Davila</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 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 AT THE END OF JULY. 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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 325</b> INTRO TO HUMAN CMPTR INTERACTN  <i>Ravi Karkar</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 SAVED FOR INFORM MAJORS AND INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD AT THE END OF JULY. 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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 326</b> WEB PROGRAMMING  <i>Timothy Richards</i>	CS MAJORS: COMPSCI 220 (OR COMPSCI 230) 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.	THIS COURSE IS HYBRID. NO OPTION FOR PASS/FAIL. SATISFIES INTEGRATIVE EXPERIENCE REQUIREMENT FOR CS AND INFORM MAJORS. STUDENTS IN LEC 01 WILL ATTEND CLASS IN PERSON ON TUESDAYS (LEC 02 WILL ATTEND CLASS IN PERSON ON THURSDAYS) AND STUDENTS ARE REQUIRED TO WATCH RECORDED LECTURES ASYNCHRONOUSLY FOR SECOND 75 MINUTES OF CLASS PER WEEK. REQUIRED LABORATORY ATTENDANCE IS ON-LINE SYNCHRONOUSLY. SEATS ARE BEING SAVED FOR INFORM MAJORS AND INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD AT THE END OF JULY. REMAINING SEATS WILL BE RELEASED AT THAT TIME. 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 328</b> MOBILE HEALTH SENSING&ANALYTCS  <i>Deepak Ganesan</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 AT THE END OF JULY. 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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 335</b> INSIDE BOX:HOW CMPTRS WORK  <i>Charles Weems</i>	COMPSCI 220 (OR COMPSCI 230) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	MAY OPEN TO SOPHOMORE CS MAJORS MEETING PREREQUISITE IF AVAILABLE SEATS. STUDENTS WILL NEED TO SIGN A LOAN AGREEMENT FOR A PROVIDED HARDWARE KIT. 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>Alexandra Meliou</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 INFORM MAJORS AND INCOMING TRANSFER STUDENTS UNTIL THE END OF NEW STUDENT ORIENTATION AND TRANSFER (NSOT) ENROLLMENT PERIOD AT THE END OF JULY. REMAINING SEATS WILL BE RELEASED AT THAT TIME. 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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 360</b> INTRO COMPUTER/NETWRK SECURITY  <i>Shiqing Ma</i>	COMPSCI 230 WITH GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	BEGINNING IN FALL 2022, THIS COURSE CHANGED FROM COMPSCI 460 TO COMPSCI 360. THE PREREQUISITE CHANGED TO REQUIRE COMPSCI 230. THIS AND FUTURE OFFERINGS OF COMPSCI 360 WILL CONTINUE TO COUNT AS A CS ELECTIVE FOR THE CS MAJOR, BUT AT THE 300-LEVEL. 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 363</b> COMPUTER CRIME LAW  <i>Marvin Cable</i>	COMPSCI 230 AND (ENGLWRIT 112 WITH A GRADE OF C OR BETTER, OR CW G.ED. REQUIREMENT).	JUNIOR AND SENIOR CS MAJORS ONLY.	PREVIOUSLY COMPSCI 391L. 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>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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 383</b> ARTIFICIAL INTELLIGENCE  <i>William McNichols</i>	COMPSCI 220 (OR COMPSCI 230) AND COMPSCI 240 (OR STATISC 315, PREVIOUSLY STATISC 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> .
<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>Matthew Rattigan</i>	COMPSCI 320 (OR COMPSCI 326) 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 429</b> SOFTWARE ENGINEERING PROJ MGMT  <i>Gordon Anderson, Yuriy Brun, Heather Conboy, Jaime Davila</i>	COMPSCI 320 WITH A GRADE OF B OR BETTER.	UNDERGRADUATE CS MAJORS ONLY.	INSTRUCTOR CONSENT REQUIRED. MEETS WITH COMPSCI 320. EFFECTIVE FALL 2023, PREREQUISITE CHANGE TO A GRADE OF B OR BETTER IN COMPSCI 320. ELIGIBLE STUDENTS MAY EMAIL INSTRUCTOR FOR PERMISSION TO ENROLL. ONCE APPROVED TO ENROLL, NOTE INSTRUCTOR PERMISSION ON THE OVERRIDE REQUEST AND SUBMIT 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>	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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 446</b> SEARCH ENGINES  <i>James Allan</i>	COMPSCI 240 OR COMPSCI 383 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	INSTRUCTOR WILL CONSIDER STATISC 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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 453</b> COMPUTER NETWORKS  <i>Parviz Kermani</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/overrides">https://www.cics.umass.edu/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 461</b> SECURE DISTRIBUTED SYSTEMS  <i>Gregory Stone</i>	COMPSCI 326, COMPSCI 345, COMPSCI 377, COMPSCI 453, OR COMPSCI 497P WITH A GRADE OF C OR BETTER.	CS MAJORS ONLY.	THE COURSE IS BASED ON A FLIPPED CLASSROOM AND USES A HYBRID INSTRUCTION MODEL. SOME OF THE COURSE CONTENT IS DELIVERED ONLINE, HOWEVER STUDENTS ARE REQUIRED TO ATTEND WEEKLY CLASS MEETINGS. SENIOR AND JUNIOR CSENG MAJORS WITH APPROPRIATE BACKGROUND, IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>
<b>COMPSCI 485</b> APPLICATIONS OF NLP  <i>Brendan O'Connor</i>	COMPSCI 220 AND COMPSCI 240, BOTH WITH A GRADE OF C OR BETTER (OR LINGUIST 429H/492B WITH A GRADE OF C OR BETTER).	JUNIOR AND SENIOR CS AND LINGUISTICS MAJORS ONLY.	PREVIOUSLY COMPSCI 490A. STUDENTS FROM OTHER DISCIPLINES WILL BE CONSIDERED AS WELL IF AVAILABLE SEATS. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 490Q</b> QUANTUM INFORMATION SCIENCE  <i>Filip Rozpedek</i>	MATH 132, MATH 235, AND COMPSCI 240 (OR STATISTC 315, PREVIOUSLY STATISTC 515), ALL WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	AFTER JUNIOR AND SENIOR CS AND INFORM MAJORS HAVE ENROLLED, THIS COURSE WILL OPEN TO JUNIOR AND SENIOR PHYSICS, MATH, AND ENGINEERING MAJORS, WHO SHOULD WAIT FOR THE COURSE TO OPEN TO SELF-ENROLL. MATH 233, COMPSCI 250 AND 311 ARE HELPFUL BUT NOT NECESSARY. PHYSICS MAJORS WITH A C OR BETTER IN PHYSICS 281 OR PHYSICS 287 MAY REQUEST AN OVERRIDE TO USE EITHER AS AN ALTERNATE FOR THE COMPSCI 240 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> .
<b>COMPSCI 514</b> ALGORITHMS FOR DATA SCIENCE  <i>Andrew McGregor, Cameron Musco</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).	UNIV LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. UNIV LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY. UNIV LEC 03: JUNIOR AND SENIOR CS MAJORS ONLY. UNIV LEC 04: MS-CMPSCI GRADUATE STUDENTS ONLY. UWW LEC 01: ONLINE MS-CMPSCI PROGRAM ONLY.	IN PERSON: LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. ONLINE: LEC 03 FOR UNDERGRADS; LEC 04 FOR GRADS; UWW LEC 01 FOR ONLINE MS-CMPSCI PROGRAM AND MS-CMPSCI ONLY. 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 515</b> ALGRTHMS,GAME THEORY, FAIRNESS  <i>Yair Zick</i>	UNDERGRADUATES: COMPSCI 240 AND COMPSCI 250, BOTH WITH A GRADE OF C OR BETTER.	LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY.	PREVIOUSLY COMPSCI 590T. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. STUDENTS SHOULD BE FAMILIAR WITH BASIC CONCEPTS OF PROBABILITY THEORY (EXPECTATION, THE LAW OF TOTAL PROBABILITY), LINEAR OPTIMIZATION (SYNTAX, WHAT IS A PRIMAL AND A DUAL), AND BASIC ALGEBRA (WHAT IS A VECTOR SPACE). 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>Juan Zhai</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.	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>Phuc Nguyen</i>	UNDERGRADUATES: COMPSCI 230 AND COMPSCI 240 WITH A GRADE OF C OR BETTER.	LEC 01: JUNIOR AND SENIOR CS MAJORS. 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. 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 532</b> SYSTEMS FOR DATA SCIENCE  <i>Peter Klemperer</i>	UNDERGRADUATES: COMPSCI 377 AND COMPSCI 445 WITH A GRADE OF C OR BETTER.	UNIV LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. UNIV LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY. UWW LEC 01: ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY.	UNIV LECT 01 FOR UNDERGRADS; UNIV LECT 02 FOR ELIGIBLE GRADS; SEATS HELD IN LECT 02 FOR INCOMING STUDENT REGISTRATION. UWW LECT 01 FOR ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY. PHDS OR ANY STUDENT WITH A TUITION WAIVER CANNOT ENROLL IN A UWW SECTION. PHD OR OTHER GRADUATE LEVEL STUDENTS WHO NEED A UNIVERSITY COURSE SHOULD REGISTER IN UNIV LECT 02. STARTING IN FALL 2022, THE UNDERGRADUATE PREREQUISITE CHANGED TO COMPSCI 377 AND COMPSCI 445 WITH A C OR BETTER. COURSE IS ONLINE WITH SYNCHRONOUS LIVE LECTURES ON MW 4-5:15 PM EDT. 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 560</b> INTRO COMPUTER&NETWRK SECURITY  <i>Parviz Kermani</i>	UNDERGRADUATES: COMPSCI 453 OR E&C-ENG 374 WITH A GRADE OF C OR BETTER.	UNIV LEC 01: UNDERGRADUATE CS AND CSENG STUDENTS. UNIV LEC 02: CMPSCI AND ECE GRADUATE STUDENTS ONLY. UWW LEC 01: MS-CMPSCI GRADUATE STUDENTS ONLY.	UNIV LEC 01 FOR UNDERGRADS; UNIV LEC 02 FOR ELIGIBLE GRADS; SEATS HELD IN LEC 02 FOR INCOMING STUDENT REGISTRATION. UWW LEC 01 IS FULLY REMOTE WITH REQUIRED ONLINE SYNCHRONOUS MEETINGS ACCORDING TO SCHEDULE, AND IS FOR MS-CS STUDENTS AND OTHER GRADUATE STUDENTS (EXCEPT M-ECE) WITH INSTRUCTOR PERMISSION. PHDS OR ANY STUDENT WITH A TUITION WAIVER CANNOT ENROLL IN A UWW SECTION. NO PREREQUISITES FOR CS OR ECE GRADUATE STUDENTS; HOWEVER, ANY EDUCATION IN SECURITY REQUIRES A GOOD KNOWLEDGE OF NETWORKING. AS SUCH, KNOWLEDGE OF COMPSCI 453, COMPUTER NETWORKING, IS ESSENTIAL TO COMPLETELY BENEFIT FROM THIS COURSE. 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> .

## SPIRE REGISTRATION INFORMATION for 2024 Fall

	<u>PREREQUISITES</u>	<u>ELIGIBILITY RESTRICTIONS</u>	<u>CLASS NOTES/COMMENTS</u> <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<b>COMPSCI 563</b> INTERNET LAW AND POLICY  <i>Marvin Cable</i>	UNDERGRADUATES: COMPSCI 311 OR COMPSCI 383 OR COMPSCI 360 (PREVIOUSLY 460) WITH C OR BETTER.	UNIV LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. UNIV LEC 02: CMPSCI AND ECE GRADUATE STUDENTS ONLY. UWW LEC 01: MS-CMPSCI GRADUATE STUDENTS ONLY.	UNIV LEC 01 FOR UNDERGRADS; UNIV LEC 02 FOR ELIGIBLE GRADS; SEATS HELD IN LEC 02 FOR INCOMING STUDENT REGISTRATION. UWW LEC 01 SYNCHRONOUS REMOTE ATTENDANCE AT SPECIFIED MEETING TIMES IS REQUIRED; FOR MS-CMPSCI STUDENTS AND OTHER GRADUATE STUDENTS (EXCEPT MS-ECE) WITH INSTRUCTOR PERMISSION. PHDS OR ANY STUDENT WITH A TUITION WAIVER CANNOT ENROLL IN A UWW SECTION. STUDENTS NEEDING SPECIAL PERMISSION FOR EITHER UNIVERSITY SECTION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 575</b> COMBINATORICS AND GRAPH THEORY  <i>Mark Wilson</i>	UNDERGRADUATES WITH COMPSCI 250 (OR MATH 455) WITH A GRADE OF B OR BETTER.	LEC 01: JUNIOR AND SENIOR UNDERGRADUATES ONLY. LEC 02: MS-CMPSCI STUDENTS ONLY.	CROSS-LISTED WITH MATH 513. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. IF NOT MEETING PREREQUISITES, STUDENTS MUST SEEK INSTRUCTOR PERMISSION VIA THE OVERRIDE PROCESS. 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 576</b> GAME PROGRAMMING  <i>Evangelos Kalogerakis</i>	UNDERGRADUATES: COMPSCI 220 AND MATH 235 BOTH WITH A GRADE OF C OR BETTER, AND COMPSCI 311 WITH A GRADE OF C OR BETTER (OR COMPSCI 250 WITH A GRADE OF B+ OR BETTER).	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.	PREVIOUSLY COMPSCI 590G. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS; U+/UWW LECT 01 OPEN TO MS-COMPSCI ONLINE PROGRAM. COURSE FULLY ONLINE, ASYNCHRONOUS WITH OPTIONAL SYNCHRONOUS LIVE LECTURES T/TH 8:30-9:45AM. SEATS HELD IN LECT 02 FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 589</b> MACHINE LEARNING  <i>Justin Domke</i>	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. UWW LEC 01: ONLINE MS-CMPSCI GRADUATE PROGRAM STUDENTS ONLY.	ONLINE: LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS; UWW LEC 01 FOR ONLINE MS-CMPSCI ONLY. 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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 590X</b> DECARBONIZATION AND DATA SCI  <i>Jayant Taneja</i>	UNDERGRADUATES: EITHER [COMPSCI 240 (OR STATISTICS 515) AND CICS 210 (OR COMPSCI 187) BOTH WITH A GRADE OF C OR BETTER] OR [INFO 348 WITH A GRADE OF C OR BETTER].	LEC 01: JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY. LEC 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD FOR INCOMING GRADUATE 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 596E</b> IS-ML APPLIED TO CHILD RESCUE  STAFF		UNIV LEC 01: SENIOR CS MAJORS AND CS GRADUATE STUDENTS ONLY. UWW LEC 01: ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY.	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. SYNCHRONOUS MEETINGS ARE REQUIRED. CONTACT INSTRUCTOR FOR CONSIDERATION AT <a href="mailto:brian@cs.umass.edu">brian@cs.umass.edu</a> .
<b>COMPSCI 602</b> RESEARCH METHODS-EMPIRICAL CS  <i>David Jensen</i>		CMPSCI GRADUATE STUDENTS ONLY.	PREVIOUSLY COMPSCI 691DD. SEATS HELD FOR INCOMING GRADUATE REGISTRATION. UNDERGRADUATE CHC CS MAJORS WITH INSTRUCTOR, HPD, AND UPD PERMISSION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 610</b> COMPILER TECHNIQUES  <i>Hui Guan</i>		CMPSCI 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: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .
<b>COMPSCI 611</b> ADVANCED ALGORITHMS  <i>Hung Le</i>		CMPSCI 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: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a> .

## SPIRE REGISTRATION INFORMATION for 2024 Fall

### PREREQUISITES

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

COMPSCI GRADUATE STUDENTS ONLY.

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

**COMPSCI 648**  
QUANTUM INFORMATION SYSTEMS  
*Stefan Krastanov*

COMPSCI GRADUATE STUDENTS ONLY.

PREVIOUSLY COMPSCI 690Q. FAMILIARITY WITH LINEAR ALGEBRA (MATH 235) AND CALCULUS (MATH 131/132). KNOWLEDGE OF SOME PROBABILITY AND DISCRETE MATH. KNOWLEDGE OF QUANTUM MECHANICS IS NOT A PREREQUISITE; QUANTUM CONCEPTS INTRODUCED AS NEEDED. KNOWLEDGE OF ALGORITHMS AND COMPLEXITY ARE NOT PREREQUISITES; ALSO INTRODUCED AS NEEDED. 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 653**  
COMPUTER NETWORKING  
*Arun Venkataramani*

COMPSCI GRADUATE STUDENTS ONLY.

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

**COMPSCI 655**  
PERFORMANCE EVALUATION  
*Donald Towsley*

COMPSCI GRADUATE STUDENTS ONLY.

UNDERGRADUATE OR GRADUATE COURSE ON PROBABILITY THEORY ASSUMED. SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

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

COMPSCI GRADUATE STUDENTS ONLY.

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

**COMPSCI 661**  
SECURE DISTRIBUTED SYSTEMS  
*Gregory Stone*

UNIV LEC 01: COMPSCI AND ECE GRADUATE STUDENTS ONLY.  
UWW LEC 01: MS-CMPSCI GRADUATE STUDENTS ONLY.

UNIV LEC 01 FOR ELIGIBLE GRADS; SEATS HELD FOR INCOMING STUDENT REGISTRATION. UWW LEC 01 FULLY REMOTE WITH REQUIRED ONLINE SYNCHRONOUS MEETINGS AT THE SCHEDULED TIME; FOR MS-CS STUDENTS AND OTHER GRADUATE STUDENTS (EXCEPT MS-ECE) WITH INSTRUCTOR PERMISSION. PHDS OR ANY STUDENT WITH A TUITION WAIVER CANNOT ENROLL IN A UWW SECTION. THE COURSE IS BASED ON A FLIPPED CLASSROOM. MUCH OF THE COURSE CONTENT IS DELIVERED ONLINE AND STUDENTS ARE EXPECTED TO VIEW OR READ THESE MATERIALS AHEAD OF CLASS MEETINGS IN PREPARATION FOR DISCUSSION. PHYSICAL ATTENDANCE IS REQUIRED FOR IN-PERSON SECTIONS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 666**  
THEORY/PRACTICE-CRYPTOGRAPHY  
*Adam O'Neill*

COMPSCI GRADUATE STUDENTS ONLY.

PREVIOUSLY COMPSCI 690C. MATHEMATICAL MATURITY, BEING COMFORTABLE READING AND WRITING MATHEMATICAL PROOFS. SEATS SAVED FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 670**  
COMPUTER VISION  
*Grant Van Horn*

COMPSCI GRADUATE STUDENTS ONLY.

PREREQUISITES ARE LINEAR ALGEBRA, CALCULUS 1 AND 2, MULTI-VARIATE CALCULUS OR PERMISSION OF INSTRUCTOR. STATS 515 OR PERMISSION OF INSTRUCTOR. ADVANCED UNDERGRADUATES WITH PERMISSION OF INSTRUCTOR. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 677**  
DISTRIBUTED AND OPERATING SYS  
*Peter Klemperer*

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

COURSE IS ONLINE, SYNCHRONOUS LECTURES ON MW 2:30-3:45 EDT. LECTURES WILL BE RECORDED FOR VIEWING AT OTHER TIMES. ATTENDANCE AT SYNCHRONOUS IS OPTIONAL. 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. UNIV LEC 01: OPEN TO GRADUATE COMPSCI AND ECE STUDENTS. UWW LECT 01: ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

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**COMPSCI 682**  
NEURAL NETWORKS:MODERN INTRO  
*Chuang Gan, Subhransu Maji*

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

UNIV LECT 01 FOR ELIGIBLE GRADS; SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. UWW LECT 01 FOR ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY. PHDS OR ANY STUDENT WITH A TUITION WAIVER CANNOT ENROLL IN A UWW SECTION. 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/overrides>.

**COMPSCI 687**  
REINFORCEMENT LEARNING  
*Bruno Castro da Silva*

COMPSCI GRADUATE STUDENTS ONLY.

A STRONG MATHEMATICAL BACKGROUND IN CALCULUS, LINEAR ALGEBRA, STRATEGIES FOR PROVING THEOREMS, AND PROGRAMMING IS ASSUMED AND REQUIRED. IN ADDITION, A BACKGROUND IN MACHINE LEARNING (COMPSCI 589 AND COMPSCI 689) AND ARTIFICIAL INTELLIGENCE (COMPSCI 683) IS ASSUMED. SEATS ARE RESERVED FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS REQUIRING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ONLINE 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>.

**COMPSCI 689**  
MACHINE LEARNING  
*Benjamin Marlin*

COMPSCI GRADUATE STUDENTS ONLY.

PERMISSION OF INSTRUCTOR FOR UNDERGRADUATES WHO HAVE COMPLETED COMPSCI 589, IF CLEARED BY THE UPD AND AVAILABLE SEATS. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 690K**  
ADV ROBOT DYNAMICS AND CONTROL  
*Donghyun Kim*

COMPSCI, ECE, AND MIE GRADUATE STUDENTS ONLY.

PREFERRED TO KNOW LINEAR ALGEBRA, BASIC PHYSICS, AND BASIC CONTROL. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 692P**  
S-HOT TOPICS:SFTWR ENGG RSRCH  
*Yuriy Brun, Juan Zhai*

COMPSCI GRADUATE STUDENTS ONLY.

FALL 2024 OFFERING 1 CREDIT ONLY. CS UNDERGRADUATES WITH PERMISSION OF INSTRUCTOR. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 692X**  
S-ML ON BIOLOGICAL SEQNCE DATA  
*Anna Green*

COMPSCI GRADUATE STUDENTS ONLY.

STUDENTS SHOULD HAVE TAKEN COMPSCI 690U COMPUTATIONAL BIOLOGY AND BIOINFORMATICS, OR HAVE COMPARABLE BACKGROUND. PHD STUDENTS FROM RELATED DISCIPLINES WITH INSTRUCTOR PERMISSION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://cics.umass.edu/overrides>

**COMPSCI 698W**  
P-CS RESRCH WRITNG PRACTICUM  
*Justin Obara*

COMPSCI PHD STUDENTS ONLY.

MAY BE REPEATED FOR CREDIT ONCE. SECT 01 (9/4-10/21/24); SECT 02 (10/23-12/9/24). STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: <https://www.cics.umass.edu/overrides>.

**COMPSCI 701**  
ADV TOPICS IN CMPSCI

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



**SPIRE REGISTRATION INFORMATION for 2024 Fall**

PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<p><b>COMPSCI 701Y</b> ADV TOPICS IN CMPSCI (1ST SEM)</p>		<p>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>
<p><b>COMPSCI 879</b> TEACH ASSTS-TOMORROW'S FACULTY <i>Neena Thota</i></p>		<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.</p>
<p><b>COMPSCI 891M</b> S-THEORY OF COMPUTATION <i>Hung Le</i></p>		<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/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI 899</b> PHD DISSERTATION</p>		<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/content/registration">https://www.cics.umass.edu/content/registration</a></p>
<p><b>COMPSCI H311</b> HNRS COLLOQ: INTRO ALGORITHMS <i>Marius Minea</i></p>	<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></p>	<p>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/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI H335</b> HNRS COLLOQ: INSIDE THE BOX <i>Charles Weems</i></p>	<p><b>COMPSCI 220 (OR COMPSCI 230) WITH A GRADE OF C OR BETTER.</b></p>	<p>COMMONWEALTH HONORS COLLEGE JUNIOR AND SENIOR CS MAJORS ONLY. DEPARTMENT CONSENT REQUIRED. NO OPTION FOR PASS/FAIL. STUDENTS MUST BE ENROLLED IN COMPSCI 335. INTERESTED STUDENTS MUST REQUEST OVERRIDE VIA ON-LINE FORM: <a href="https://www.cics.umass.edu/overrides">https://www.cics.umass.edu/overrides</a>.</p>
<p><b>COMPSCI H446</b> HNRS COLLOQ: SEARCH ENGINES <i>James Allan</i></p>	<p><b>COMPSCI 240 OR COMPSCI 383 WITH A GRADE OF C OR BETTER [OR COMPSCI 446 WITH A GRADE OF B OR BETTER].</b></p>	<p>COMMONWEALTH HONORS COLLEGE JUNIOR AND SENIOR CS MAJORS ONLY. DEPARTMENT CONSENT REQUIRED. NO OPTION FOR PASS/FAIL. STUDENTS MUST BE ENROLLED IN COMPSCI 446 (OR HAVE COMPLETED COMPSCI 446 WITH A GRADE OF B OR BETTER). 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>INFO 101</b> INTRO TO INFORMATICS <i>Michelle Trim</i></p>		<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>
<p><b>INFO 150</b> MATH FOUND-INFORMATICS <i>David Barrington</i></p>		<p>INFORM MAJORS ONLY. 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/overrides">https://www.cics.umass.edu/overrides</a>.</p>

## SPIRE REGISTRATION INFORMATION for 2024 Fall

	<u>PREREQUISITES</u>	<u>ELIGIBILITY RESTRICTIONS</u>	<u>CLASS NOTES/COMMENTS</u> <small>INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</small>
<b>INFO 203</b> A NETWORKED WORLD  <i>Mohammadhassan Hajiesmaili</i>		INFORM MAJORS ONLY.	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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>INFO 248</b> INTRO TO DATA SCIENCE  <i>Gordon Anderson</i>	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, SOCIOLOG 212, OR STATISTC 515 WITH A GRADE OF C OR BETTER.	INFORM MAJORS ONLY.	PREREQUISITE CHANGE APPROVED BY THE FACULTY SENATE, EFFECTIVE SPRING 2024, TO ALLOW ADDITIONAL PROGRAMMING COURSES. 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> .
<b>INFO 324</b> INTRO CLINICAL HLTH INFORMTCS  <i>Sunghoon Lee</i>	INFO 248 (OR STATISTCS 515 OR COMPSCI 240) WITH A GRADE OF C OR BETTER.	INFORM MAJORS ONLY.	PREVIOUSLY INFO 390W. THIS COURSE IS A CORE IN THE INFORMATICS HEALTH AND LIFE SCIENCES (HLS) CONCENTRATION. KNOWLEDGE OF HEALTH DATA OR MEDICINE IS NOT A PREREQUISITE; THIS COURSE IS DESIGNED TO INTRODUCE THE CONCEPTS OF HEALTH AND MEDICAL DATA. 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>INFO 348</b> DATA ANALYTICS WITH PYTHON  <i>Matthew Rattigan</i>	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.	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/overrides">https://www.cics.umass.edu/overrides</a> .
<b>INFO 390C</b> INTRO COMPTNL BIOL&BIOINFRMTCS  <i>Anna Green</i>	INFO 248 WITH A GRADE OF C OR BETTER (OR CICS 210 AND COMPSCI 240 BOTH WITH A GRADE OF C OR BETTER).	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	JUNIOR AND SENIOR NON-CS AND NON-INFORM MAJORS WITH A C OR BETTER IN STATISTC 240 (OR EQUIVALENT) AND ONE OF COMPSCI 119, CICS 108, OR CICS 110 WITH INSTRUCTOR PERMISSION, 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> .