	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS _INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT._
CICS 110 FOUNDATIONS OF PROGRAMMING _Victor Chen, Evan Ciccarelli, Jaime Davila, Cole Reilly_	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 FRESHMAN, SOPHOMORE AND JUNIOR COMPSCI, INFORM, MATH, PHYSICS, COMP LINGUISTICS AND STATS & DATA SCIENCE MAJORS.	Students are not permitted to take CICS 110 after successfully completing COMPSCI 121. After eligible CS, INFORM, MATH, PHYSICS, CMPLING AND STATS & DATA SCI majors have enrolled, will open to all undergraduate freshmen, sophomore, and juniors, 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: https://www.cics.umass.edu/academics/course-overrides.
CICS 127 INTRO TO PUBLIC INTEREST TECH _Emily Nutwell_		This course is only open to students registered for the Public Interest Technology RAP in Leach Hall.	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: https://www.cics.umass.edu/academics/course-overrides
CICS 160 OBJECT-ORIENTED PROGRAMMING _Cole Reilly, Ella Tuson_	CICS 110 (PREVIOUSLY INFO 190S) OR COMPSCI 121 WITH A GRADE OF C OR BETTER.	UNDERGRADUATE CS, INFORM, COMP LING OR MATH MAJORS IN THE MATHCMPTNG SUBPLAN 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, COMP LING AND MATH MAJORS IN THE MATHCMPTNG SUBPLAN 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 OVERRIDE VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides.
CICS 190A MSS:PHYSCL CMPTNG/DIGTL FABRCN _Michael Pfeiffer_		CS AND INFORM MAJORS ONLY.	MANDATORY PASS/FAIL. NO EXPERIENCE NECESSARY. DUE TO VERY LIMITED SEATS, THIS COURSE WILL NOT BE ON THE OVERRIDE FORM.
CICS 208 DEFEND DEMOCRACY-DIGITAL WORLD _Ethan Zuckerman_			PREVIOUSLY CICS 297DP. CROSS-LISTED WITH PUBPOL 208 AND COMM 208. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides.
CICS 210 DATA STRUCTURES _Mordecai Golin, Marc Liberatore_	CICS 160 (PREVIOUSLY INFO 190T) WITH A GRADE OF C OR BETTER.	UNDERGRADUATE CS, INFORM, COMP LING OR MATH MAJORS IN THE MATHCMPTNG SUBPLAN ONLY.	STUDENTS ARE NOT PERMITTED TO TAKE CICS 210 AFTER SUCCESSFULLY COMPLETING COMPSCI 187. AFTER ELIGIBLE CS, INFORM COMP LING AND MATH MAJORS IN THE MATHCMPTNG SUBPLAN 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: https://www.cics.umass.edu/academics/course-overrides.
CICS 237 INTRO RESRCH IN THE DISCIPLINE _Casey Maloney_			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.
CICS 256 MAKE: PHYSICAL COMPUTING _Phuc Nguyen_	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: https://www.cics.umass.edu/academics/course-overrides
CICS 291C S-FIND STRENGTHS/DESIGN CAREER _Casey Maloney_		CS AND INFORM SOPHOMORES AND JUNIORS ONLY.	MANDATORY PASS/FAIL. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides

	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS _INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT._
CICS 291T S-CICS TRANSFER SUCCESS _Emma Anderson_			DEPARTMENT CONSENT REQUIRED: OPEN TO INCOMING CS AND INFORM TRANSFER STUDENTS ONLY.
CICS 298A P-LEADRSHP:COMMUNCTNG-EXPRTISE _Emma Anderson_	CICS 160, COMPSCI 186, COMPSCI 187, OR CICS 210 WITH A GRADE OF C OR BETTER.	CS AND INFORM MAJORS ONLY.	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/academics/course-overrides.
CICS 305 SOC ISS IN CMPTNG _Erin Butler, Siobhan Meï, Justin Obara, Christina Sutcliffe_	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 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.	_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. BA-CS students are only required to complete 3 of the 4 core courses with a grade of D or better to meet eligibility. LEC 01-02 meet together; LEC 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: https://www.cics.umass.edu/academics/course-overrides._
CICS 398T P-CPT _, Jack Wileden_		UNDERGRADUATE CS AND INFORM 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: https://cicscareers.notion.site/CPT-Process-for-Internships-c0f1d14ccfe5448ba786583a49993209_
CICS 598T P-CPT _Philip Thomas, Hao Zhang_		CMPSCI GRADUATE STUDENTS ONLY.	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: https://cicscareers.notion.site/CPT-Process-for-Internships-c0f1d14ccfe5448ba786583a49993209
COMPSCI 119 INTRO PROGRAMMING _Bao Nguyen_		FRESHMEN, SOPHOMORE AND JUNIOR NON-CS MAJORS ONLY.	CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. AFTER SOPHOMORE AND FRESHMEN REGISTER, WILL OPEN TO JUNIORS. IF AVAILABLE SEATS, WILL OPEN TO ALL UNDERGRADUATE NON-CS MAJORS. 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: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 198C P-INTRO-C PROGRAMMING LANGUAGE _Meng-Chieh Chiu_	COMPSCI 121 WITH A GRADE OF B OR BETTER, OR CICS 160 (PREVIOUSLY INFO 190T, OR COMPSCI 186 OR CICS 210) 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. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 220 PGMG METHODOLOGY _Marius Minea, James Perretta_	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. 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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 230 CMPTR SYS PRINC _Phuthipong Bovornkeeratiroj, Meng-Chieh Chiu_	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: https://www.cics.umass.edu/academics/course-overrides

	PREREQUISITES	**ELIGIBILITY RESTRICTIONS**	**CLASS NOTES/COMMENTS** *INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.*
COMPSCI 240 RSNG UNDER UNCERTAINTY *Ghazaleh Parvini, Gayane Vardoyan*	CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 187 OR CICS 210) AND MATH 132, BOTH WITH A GRADE OF C OR BETTER.	CS AND COMP LING 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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 250 INTRO TO COMPUTATION *Mordecai Golin, Mingda Qiao*	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 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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 311 INTRO TO ALGORITHMS *Ghazaleh Parvini, Daniel Sheldon, Hava Siegelmann*	CICS 210 (OR COMPSCI 187) AND COMPSCI 250 (OR MATH 455), BOTH WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS OR MATH MAJORS IN THE MATHCMPTNG SUBPLAN 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 OR MATH MAJORS IN THE MATHCMPTNG SUBPLAN REGISTER, WILL OPEN TO SOPHOMORES. SOPHOMORE, JUNIOR AND SENIOR CS, INFORM, COMP LING OR MATH MAJORS IN THE MATHCMPTNG SUBPLAN 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: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 320 INTRO TO SOFTWARE ENGINEERING *Heather Conboy, Madeline Endres, James Perretta*	COMPSCI 220 WITH GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	No option for pass/fail. Satisfies integrative experience requirement for CS majors. Meets with COMPSCI 429. Seats are being saved for incoming transfer students until the end of new student orientation and transfer (NSOT) enrollment period. After junior and seniors register, will open to sophomores. Sophomores 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: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 325 INTRO TO HUMAN CMPTR INTERACTN *Ella Tuson*	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.	JR/SR INFORM majors only. Will open to JR/SR CS and INFORM majors after JR ramp on. Seats 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: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 326 WEB PROGRAMMING *Timothy Richards*	COMPSCI 220 WITH A GRADE OF C OR BETTER [OR INFO 248 AND CICS 210 (OR COMPSCI 187), BOTH WITH A GRADE OF C OR BETTER].	JUNIOR AND SENIOR CS AND INFORM MAJORS ONLY.	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: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 328 MOBILE HEALTH SENSING&ANALYTCS *Deepak Ganesan*	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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 335 INSIDE BOX:HOW CMPTRS WORK *Charles Weems*	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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 345 PRACT & APPLICS OF DATA MGMT *Gordon Anderson, Neha Makhija, Alexandra Meliou*	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. LEC 01/02 will open to JR/SR INFORM majors only. All sections will open to JR/SR CS and INFORM MAJORS after JR ramp on. 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: https://www.cics.umass.edu/academics/course-overrides.

	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS *INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.*
COMPSCI 360 INTRO COMPUTER/NETWRK SECURITY *Pubali Datta*	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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 363 COMPUTER CRIME LAW *Marvin Cable*	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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 367 REV ENGG&UNDRSTNDG EXPLOIT DEV *Lurene Grenier*	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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 377 OPERATING SYSTEMS *Meng-Chieh Chiu*	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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 383 ARTIFICIAL INTELLIGENCE *Matthew Rattigan*	CS MAJORS: (CICS 210 OR COMPSCI 187) AND COMPSCI 240 (OR STATISTC 315; PREVIOUSLY STATISTC 515), BOTH WITH A GRADE OF C OR BETTER. INFORM MAJORS: INFO 348 AND STATISTC 315, 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. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 389 INTRO TO MACHINE LEARNING *Aline Weber*	CICS 210 (OR COMPSCI 187) AND (COMPSCI 240 OR STATISTC 315 OR STATISTC 240 OR PSYCH 240 OR OIM 240 OR RES-ECON 212 OR SOCIOL 212) AND MATH 132, 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. ELIGIBLE STUDENTS WHO HAVE COMPLETED COMPSCI 187 WITH A C OR BETTER MAY USE IT IN PLACE OF CICS 210; DO NOT REQUEST AN OVERRIDE, BUT WAIT FOR THE CHANGE TO SHOW ON SPIRE TO SELF-ENROLL. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 420 SOFTWARE ENTREPRENEURSHIP *Matthew Rattigan*	COMPSCI 320 (OR COMPSCI 325 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: https://groups.cs.umass.edu/pit/undergraduate-pit-certificate/. 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 cschweik@umass.edu. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 429 SOFTWARE ENGINEERING PROJ MGMT *Heather Conboy, Madeline Endres, James Perretta*	COMPSCI 320 WITH A GRADE OF B OR BETTER.	UNDERGRADUATE CS MAJORS ONLY.	Instructor consent required. Meets with COMPSCI 320. Eligible students should complete the instructor's review form: https://forms.gle/yawQeTvjvqTtAxNv6. Once approved to enroll, refer to instructor permission on the override request and submit via the on-line form: https://www.cics.umass.edu/academics/course-overrides.

	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS *INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.*
COMPSCI 445 INFORMATION SYSTEMS *Marco Serafini*	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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 453 COMPUTER NETWORKS *Phuthipong Bovornkeeratiroj*	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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 461 SECURE DISTRIBUTED SYSTEMS *Gregory Stone*	COMPSCI 326, COMPSCI 345, COMPSCI 377, COMPSCI 453, OR COMPSCI 497P WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	THE COURSE IS BASED ON A FLIPPED CLASSROOM AND USES A HYBRID INSTRUCTION MODEL. SOME OF THE COURSE CONTENT IS DELIVERED ONLINE, HOWEVER STUDENTS ARE REQUIRED TO ATTEND WEEKLY CLASS MEETINGS. SENIOR AND JUNIOR CSENG MAJORS WITH APPROPRIATE BACKGROUND, IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 485 APPLICATIONS OF NLP *Brendan O'Connor*	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 COMP LING 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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 491P S-PHILOSPHIES:AI/CONSCIOUSNESS *Charles Weems*	COMPSCI 250 AND (COMPSCI 383 OR COMPSCI 389), BOTH WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS/INFORM MAJORS ONLY.	THIS WILL BE A READING SEMINAR INVOLVING 4 TO 8 HOURS OF READING AND PREPARATION PER WEEK. EACH WEEK WILL INVOLVE READING A PAPER AND A BOOK CHAPTER. FOR TEN OF THE WEEKS, ONE OR TWO STUDENTS WILL SIGN UP TO PREPARE AND LEAD A DISCUSSION OF ONE PAPER. READING SUMMARY NOTES AND QUESTIONS WILL BE SUBMITTED. GRADING IS BASED ON ATTENDANCE, SUBMITTED WORK, AND THE PREPARATION FOR LEADING A DISCUSSION. THERE ARE NO EXAMS. THE BOOK AND PAPERS WILL BE PROVIDED. INFORM MAJORS MAY PETITION THE INFORMATICS PROGRAM DIRECTOR FOR A CASE-BY-CASE REVIEW TO COUNT AS AN INFORMATICS ELECTIVE. COMPSCI 589 WITH A GRADE OF C OR BETTER MAY BE USED AS AN ALTERNATE PREREQUISITE IN PLACE OF COMPSCI 383 OR 389. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 514 ALGORITHMS FOR DATA SCIENCE *Cameron Musco*	UNDERGRADUATES: COMPSCI 240 (OR STATISTCS 515) AND COMPSCI 311, BOTH WITH A GRADE OF B+ OR BETTER (OR COMPSCI 240, STATISTCS 315/515, COMPSCI 311, MATH 233, AND MATH 235, ALL 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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 515 COMPUTATIONAL SOCIAL CHOICE *Yair Zick*	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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 520 THEORY AND PRACTICE-SOFTENGIN *Yuriy Brun*	UNDERGRADUATES: COMPSCI 320 (OR COMPSCI 220 AND COMPSCI 326) 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: https://www.cics.umass.edu/academics/course-overrides.

	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS *INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.*
COMPSCI 532 SYSTEMS FOR DATA SCIENCE *Peter Klemperer*	UNDERGRADUATES: COMPSCI 377 AND COMPSCI 445, BOTH WITH A GRADE OF C OR BETTER.	LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY. C1 LEC 01: ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY.	UO1 LEC 01 for undergrads; UO1 LEC 02 for eligible MS-CMPSCI grads; seats held in LEC 02 for incoming student registration. C1 LEC 01 for online MS-CMPSCI program students only. Course is online with optional synchronous live lectures on MW 4:00-5:15 PM EDT. All exams will be in-person for all students who are not enrolled in the online MS-CMPSCI program. Phds or any student with a tuition waiver cannot enroll in C1 LEC 01. Phd or other graduate level students who need a university course should register in UO1 LEC 02. Students needing special permission must request overrides via the on-line form: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 550 INTRODUCTION TO SIMULATION *Peter Haas*	UNDERGRADUATES: CICS 210 (OR COMPSCI 187) AND STATISTC 315 (PREVIOUSLY STATISTC 515), BOTH WITH A GRADE OF C OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI GRADUATE STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD IN LECT 02 FOR INCOMING GRAD STUDENTS. SOME BACKGROUND IN STOCHASTIC PROCESSES IS HELPFUL, BUT NOT REQUIRED, AS THE MATERIAL WILL BE DEVELOPED IN CLASS. INSTRUCTOR PERMISSION REQUIRED FOR UNDERGRADUATE IE MAJORS MEETING PREREQUISITES AND GRADUATE IE STUDENTS. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: 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. UO1 LEC 01 for undergraduates; UO1 LEC 02 for graduates. Fully online with optional synchronous live lectures on Mon/Wed at 2:30-3:45 PM. All exams will be in-person for all students who are not enrolled in the online MS-CMPSCI program. Canvas will be used for course materials, and ECHO360 will be used for distributing lecture videos. Senior and junior CSENG majors with appropriate background and instructor permission (if available) may enroll. Students requiring special permission must request overrides via the online form. https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 571 DATA VISUALIZATION&EXPLORATION *Narges Mahyar*	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 GRADUATE STUDENTS ONLY. C1 LEC 01: ONLINE MS-CMPSCI PROGRAM STUDENTS ONLY.	LEC 01 for undergrads; LEC 02 for grads. Seats held in LEC 02 for incoming grad student registration. Course is fully online with synchronous remote attendance TTH at 10-11:15AM required. C1 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.
COMPSCI 575 COMBINATORICS AND GRAPH THEORY *Marius Minea*	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: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 589 MACHINE LEARNING *Bruno Castro da Silva*	UNDERGRADUATES: [MATH 545 AND STATISTCS 315 (PREVIOUSLY STATISTCS 515) AND COMPSCI 240, ALL WITH A GRADE OF C OR BETTER.] OR [MATH 545 WITH A GRADE OF C OR BETTER AND COMPSCI 240 WITH A GRADE OF B+ OR BETTER.] OR [MATH 235 AND MATH 233, BOTH WITH A GRADE OF B+ OR BETTER, AND STATISTCS 315 (PREVIOUSLY STATISTCS 515) AND COMPSCI 240, BOTH WITH A GRADE OF C OR BETTER.] OR [MATH 235 AND MATH 233 AND COMPSCI 240, ALL WITH A GRADE OF B+ OR BETTER.]	LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. LEC 02: MS-CMPSCI GRADUATE STUDENTS ONLY. *C1 LEC 01: ONLINE MS-CMPSCI GRADUATE STUDENTS AND MS-STATS (NEWTON) 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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 590AF REV ENGG&UNDRSTNDG EXPLOIT DEV *Lurene Grenier*	UNDERGRADUATES: 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). 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
COMPSCI 590OP APPLIED NUMERICL OPTIMIZATN *Shiting Lan*	COMPSCI 240, MATH 235, AND MATH 233, ALL WITH C OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: *MS-CMPSCI STUDENTS ONLY.*	LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. 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.
COMPSCI 590Q QUANTUM INFORMATION SYSTEMS *Donald Towsley*	UNDERGRADUATES: MATH 235 WITH A GRADE OF C OR BETTER.	LEC 01: JUNIOR AND SENIOR CS MAJORS ONLY. LEC 02: MS-CMPSCI STUDENTS ONLY.	MEETS WITH COMPSCI 648. LEC 01 FOR UNDERGRADS; LEC 02 FOR GRADS. KNOWLEDGE OF QUANTUM MECHANICS IS NOT A PREREQUISITE; QUANTUM CONCEPTS WILL BE INTRODUCED AS NEEDED. BACKGROUND SHOULD INCLUDE FAMILIARITY WITH CALCULUS (MATH 131, 132), KNOWLEDGE OF SOME PROBABILITY AND DISCRETE MATH. KNOWLEDGE OF ALGORITHMS AND COMPLEXITY ARE NOT PREREQUISITES; WILL BE INTRODUCED AS NEEDED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides

	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS *INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.*
COMPSCI 590RM RESEARCH METHODS-EMPIRICAL CS *David Jensen*		UNIV LEC 01: JUNIOR AND SENIOR CS AND INFORM MAJORS IN COMMONWEALTH HONORS COLLEGE. UNIV LEC 02: GRADUATE CMPSCI STUDENTS ONLY.	Meets with COMPSCI 602. Department consent required for LEC 01: Undergraduate CHC CS and INFORM majors with HPD and instructor permission. For undergraduates, this course can be used to satisfy the 499Y requirement for departmental honors (HN-DH). For general study & multidisciplinary honors (HN-GSMH), students whose theses or projects have a substantial empirical component, need to obtain CHC permission to satisfy the 499Y requirement before submitting override request. Does not count as a CS elective for the CS major (BA or BS). Students needing special permission must request overrides via the on-line form: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 602 RESEARCH METHODS-EMPIRICAL CS *David Jensen*		CS PhD students only.	Meets with COMPSCI 590RM. Open to CS PhD students only. 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: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 611 ADVANCED ALGORITHMS *Hedyeh Beyhaghi*		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: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 621 ADV SOFTENG:ANALYSIS & EVAL *Juan Zhai*		GRADUATE CMPSCI STUDENTS ONLY.	*SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides.*
COMPSCI 646 INFORMATION RETRIEVAL *Razieh Rahimi*		CMPSCI 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/academics/course-overrides.
COMPSCI 648 QUANTUM INFORMATION SYSTEMS *Donald Towsley*		CMPSCI GRADUATE STUDENTS ONLY.	MEETS WITH COMPSCI 590Q. 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/academics/course-overrides.
COMPSCI 660 ADV INFORMATION ASSURANCE *Amir Houmansadr*		CMPSCI 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/academics/course-overrides.*
COMPSCI 661 SECURE DISTRIBUTED SYSTEMS *Gregory Stone*		UNIV LEC 01: CMPSCI AND ECE GRADUATE STUDENTS ONLY. U+ LEC 01: MS-CMPSCI GRADUATE STUDENTS ONLY.	UNIV LEC 01 FOR ELIGIBLE GRADS; SEATS HELD FOR INCOMING STUDENT REGISTRATION. U+ 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 U+ 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/academics/course-overrides
COMPSCI 666 THEORY/PRACTICE-CRYPTOGRAPHY *Adam O'Neill*		CMPSCI 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/academics/course-overrides.

	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS *INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.*
COMPSCI 670 COMPUTER VISION *Subhransu Maji*		CMPSCI GRADUATE STUDENTS ONLY.	Prerequisites are linear algebra, calculus 1 and 2, multi-variate calculus, STATS 515 or permission of instructor. Advanced undergraduates with permission of instructor. Undergraduate prerequisite COMPSCI 370. Seats held for incoming grad student registration. Students needing instructor permission must request overrides via the on-line form: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 682 NEURAL NETWORKS:MODERN INTRO *Abhidip Bhattacharyya*		CMPSCI GRADUATE STUDENTS ONLY.	SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. 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 684 TRUSTWORTHY AND RESPONSIBLE AI *Eugene Bagdasarian*		CMPSCI GRADUATE STUDENTS ONLY.	AS THE COURSE HAS INTERDISCIPLINARY PARTS, TOWARD STATISTICS AND BEHAVIORAL SCIENCES, GRADUATE STUDENTS FROM OTHER DEPARTMENTS MAY ENROLL, IF SEATS ARE AVAILABLE. FOLLOWING BACKGROUND IS ASSUMED: INTRODUCTORY MACHINE LEARNING OR DATA SCIENCE (COMPSCI 348 OR 383 OR 389 OR 589 OR EQUIVALENT), BASIC STATISTICS (COMPSCI 240 OR STAT 240 OR PSYCH 240 OR OIM 240 OR STAT 515 OR EQUIVALENT), GOOD PROGRAMMING SKILLS IN PYTHON (LIBRARIES: NUMPY, PANDAS, MATPLOTLIB, SKLEARN). STUDENTS OUTSIDE OF CS MUST REQUEST AN OVERRIDE AND DESCRIBE HOW THEY MEET PREREQUISITES UNDER ADDITIONAL INFORMATION. STUDENTS WHO ARE UNCERTAIN WHETHER THEIR BACKGROUND IS SUFFICIENT SHOULD EMAIL THE INSTRUCTOR ATTACHING THEIR ACADEMIC TRANSCRIPTS TO DETERMINE WHETHER THEY HAVE THE APPROPRIATE BACKGROUND TO BE SUCCESSFUL IN THE COURSE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDE VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 687 REINFORCEMENT LEARNING *Philip Thomas*		CMPSCI 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/academics/course-overrides.*
COMPSCI 689 MACHINE LEARNING *Justin Domke*		CMPSCI 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/academics/course-overrides
COMPSCI 690K ADV ROBOT DYNAMICS AND CONTROL *Donghyun Kim*		CMPSCI, 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/academics/course-overrides.
COMPSCI 690S AI ALIGNMENT *Scott Niekum*		CMPSCI GRADUATE STUDENTS ONLY.	*NO FORMAL PREREQUISITES, BUT IT IS STRONGLY RECOMMENDED TO HAVE STRONG PROGRAMMING SKILLS, LINEAR ALGEBRA, PROBABILITY AND STATISTICS, MULTIVARIATE CALCULUS, AND GRADUATE-LEVEL MACHINE LEARNING. 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 691WM S-WEARBL&MOBLE SENSRS-CLIN SCI *Sunghoon Lee*		CMPSCI GRADUATE STUDENTS ONLY.	SECT 01=3 CR; SECT 02=1 CR. 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.

	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS *INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.*
COMPSCI 692FD S-FLOWS,DIFFUSNS,BAYESIAN STUF *Justin Domke*		*CMPSCI AND MATH/STATISTICS GRADUATE STUDENTS ONLY.*	No strict prerequisite courses are needed, but attendees are assumed to be familiar with most of the topics covered in COMPSCI 688, 689, or equivalent, especially probabilistic inference. Some basic knowledge of flow-based models, including normalizing flows and diffusion models, would also be helpful for following the papers. Students needing special permission must request overrides via the on-line form: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI 692S S-SYSTMS FOR ML *Marco Serafini*		*CMPSCI AND ECE GRADUATE STUDENTS ONLY.*	*SEC 01=3 Cr.; SEC 02=1Cr. No formal prerequisites, but students are expected to have a strong background in graduate-level deep learning and in at least one systems area, such as operating systems, data systems, or systems for deep learning. Students in the 3-credit section are also expected to have strong programming skills and hands-on experience in one system area. Students needing special permission must request overrides via the on-line form: https://www.cics.umass.edu/academics/course-overrides.*
COMPSCI 698W P-CS RESRCH WRITNG PRACTICUM *Justin Obara*		CMPSCI PHD STUDENTS ONLY.	*This may be repeated once for credit. SEC 01 (9/8-10/20/26); SEC 02 (10/21-12/9/26). Students requiring special permission must request overrides through the online form: https://www.cics.umass.edu/academics/course-overrides.*
COMPSCI 701 ADV TOPICS IN CMPSCI *Philip Thomas, Hao Zhang*		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
COMPSCI 701Y ADV TOPICS IN CMPSCI (1ST SEM) *Philip Thomas, Hao Zhang*		DOCTORAL, MASTERS CMPSCI GRADUATE STUDENTS ONLY.	INDICATES THE FIRST SEMESTER OF A TWO-SEMESTER SEQUENCE, 701Y (3 CREDITS) FOLLOWED BY 701 (3 CREDITS), WITH GRADE FOR BOTH ASSIGNED AT THE END. REQUEST OVERRIDE VIA THE SPECIAL ON-LINE FORM: https://www.cics.umass.edu/content/registration
COMPSCI 879 TEACH ASSTS-TOMORROW'S FACULTY *Timothy Richards*			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.
COMPSCI 891M S-THEORY OF COMPUTATION *Andrew McGregor*		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: https://www.cics.umass.edu/academics/course-overrides
COMPSCI 899 PHD DISSERTATION			*COURSE OPEN ONLY TO CS GRADUATE STUDENTS WHO HAVE ACHIEVED CANDIDACY. REQUEST ENROLLMENT VIA THE SPECIAL ON-LINE FORM: https://www.cics.umass.edu/academics/academic-policies/graduate-programs-policies/graduate-student-forms*
COMPSCI H230 HNRS COLLOQ: COMPUTR SYS PRINC *Meng-Chieh Chiu*	*CICS 210 (OR COMPSCI 187) WITH A GRADE OF C OR BETTER AND COMPSCI 198C [OR COMPSCI 230 WITH A GRADE OF B OR BETTER].*	*COMMONWEALTH HONORS COLLEGE SOPHOMORE AND JUNIOR CS MAJORS ONLY.*	DEPARTMENT CONSENT REQUIRED. NO OPTION FOR PASS/FAIL. STUDENTS MUST BE ENROLLED IN OR HAVE COMPLETED COMPSCI 230 WITH A GRADE OF B OR BETTER. REQUEST OVERRIDE VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides.

	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS *INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.*
COMPSCI H250 HNRS COLLOQ: INTRO COMPUTATION *Mordecai Golin*	*CICS 160 (PREVIOUSLY INFO 190T OR COMPSCI 187 OR E&C-ENG 241) AND MATH 132, BOTH WITH A GRADE OF C OR BETTER [OR COMPSCI 250 WITH A GRADE OF B OR BETTER].*	COMMONWEALTH HONORS COLLEGE CS AND MATH MAJORS ONLY.	*DEPARTMENT CONSENT REQUIRED. NO OPTION FOR PASS/FAIL. STUDENTS MUST BE ENROLLED IN COMPSCI 250 (OR HAVE COMPLETED COMPSCI 250 WITH A GRADE OF B OR BETTER). OTHER CHC MAJORS CONSIDERED IF AVAILABLE SEATS. INTERESTED STUDENTS MUST COMPLETE OVERRIDE REQUEST VIA ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides.*
COMPSCI H335 HNRS COLLOQ: INSIDE THE BOX *Charles Weems*	*COMPSCI 220 (OR COMPSCI 230) WITH A GRADE OF C OR BETTER.*	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: https://www.cics.umass.edu/academics/course-overrides.
COMPSCI H360 HNRS COLLOQ: COMPTR&NETWRK SEC *Pubali Datta*	*COMPSCI 230 WITH A GRADE OF C OR BETTER [OR COMPSCI 360 WITH A GRADE OF B OR BETTER].*	COMMONWEALTH HONORS COLLEGE JUNIOR AND SENIOR CS MAJORS ONLY.	No option for pass/fail. Students must be enrolled in COMPSCI 360 (or have completed COMPSCI 360 with a grade of B or better). Request override via the on-line form: https://www.cics.umass.edu/academics/course-overrides
INFO 101 INTRO TO INFORMATICS *Michelle Trim*		UNDERGRADUATE NON-CS MAJORS ONLY.	CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. FOUNDATIONS COURSE FOR THE INFORMATICS MAJOR. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides. We have verified that you should be able to enroll yourself on SPIRE because you fulfill both the eligibility and prerequisite requirements for this class. If a seat is available, attempt to enroll yourself. Since your enrollment is possible without staff assistance, you are not eligible for an override. This request will be archived.
INFO 150 MATH FOUND-INFORMATICS *Justin Clarke*		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: https://www.cics.umass.edu/academics/course-overrides
INFO 203 A NETWORKED WORLD *Mohammadhassan Hajiesmaili*		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: https://www.cics.umass.edu/academics/course-overrides
INFO 248 INTRO TO DATA SCIENCE *Gordon Anderson*	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. AFTER ELIGIBLE INFORM MAJORS REGISTER, WILL OPEN TO ALL ELIGIBLE UNDERGRADUATES, IF AVAILABLE SEATS. ANTICIPATED OPENING DURING THE FIRST WEEK OF CLASSES. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/academics/course-overrides
INFO 324 INTRO CLINICAL HLTH DATA SCI *Sunghoon Lee*	INFO 248 (OR STATISTCS 515 OR COMPSCI 240) WITH A GRADE OF C OR BETTER.	INFORM AND CS 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. Seats saved for INFORM majors. Will open to CS majors after freshman register. CS 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: https://www.cics.umass.edu/academics/course-overrides.

	PREREQUISITES	**ELIGIBILITY RESTRICTIONS**	**CLASS NOTES/COMMENTS** *INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.*
INFO **348** DATA ANALYTICS WITH PYTHON *Jayant Taneja*	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: https://www.cics.umass.edu/academics/course-overrides