	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.
CICS 191CICS1  FYS - CICS  John Lalor, Abram Handler, Ayse Ozisik, Brittany Johnson, Katherine Keith, Su Lin		FIRST-YEAR CICS STUDENTS ONLY.	REGISTRATION AVAILABLE ONLY DURING SUMMER ORIENTATION. Sections 01, 02, 07, 08, 12, and 13 will address ethical issues surrounding Artificial Intelligence systems and Big Data. Section 03 and 05 will address Machine Learning in Healthcare. Sections 04, 06, 09, and 10 will address Ethical Issues in Tech. Section 11 will address Great Ideas by Women in Computing. Section 15 will address The Technological Singularity.
			Additional sections on other topics may be added during the summer.
CICS 191CICS2  FYS-CICS EXPLORATORY RAP  Gregory Boisseau		CICS EXPLORATORY FIRST YEAR STUDENTS ONLY.	REGISTRATION AVAILABLE ONLY DURING SUMMER ORIENTATION.
CICS 191CMPS2  FYS - CS MAJOR RAP  David Barrington, Jack Wileden		CS RAP FIRST YEAR PROGRAM STUDENTS ONLY.	REGISTRATION AVAILABLE ONLY DURING SUMMER ORIENTATION.
CICS 290M  MAKE: PHYSICAL COMPUTING  Rui Wang	COMPSCI 187 WITH A GRADE OF 'C' OR BETTER AND BASIC MATH SKILLS(R1).	UNDERGRADUATE CS MAJORS ONLY.	THIS COURSE HAS A REQUIRED LAB SECTION AND COUNTS TOWARDS THE CS LAB SCIENCE REQUIREMENT FOR THE BS-CS. THIS OFFERING IS OPEN TO SOPHOMORE AND FRESHMAN BS-CS MAJORS ONLY WHO HAVE NOT SATISFIED THE CS LAB SCIENCE REQUIREMENT. JUNIORS MAY BE CONSIDERED IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 105 COMPUTER LITERACY William Verts		UNDERGRADUATE NON-CS MAJORS ONLY.	CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. ALL STUDENTS MUST HAVE ACCESS TO A COMPUTER FOR PERFORMING ASSIGNMENTS. COMPUTER MUST RUN WINDOWS 7, 8, OR 10, OR MAC OS/X 10.6 AND LATER, WITH A RECENT VERSION OF MICROSOFT OFFICE (NOTHING EARLIER THAN MICROSOFT OFFICE 2010 FOR WINDOWS OR MICROSOFT OFFICE 2011 FOR MAC). NOT ALL ASSIGNMENTS CAN BE PERFORMED ON A MAC, BUT STUDENTS WITHOUT WINDOWS (OR WITHOUT A COMPUTER) MAY USE CAMPUS WINDOWS PC LABS. PLEASE CHECK 105 WEBSITE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 119 INTRO PROGRAMMING William Verts		UNDERGRADUATE NON-CS MAJORS ONLY.	CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 120 PROBLEM SOLVING W/INTERNET  William Verts		UNDERGRADUATE NON-CS MAJORS ONLY.	CS MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. ALL STUDENTS MUST HAVE ACCESS TO A COMPUTER CONNECTED TO THE INTERNET FOR PERFORMING ASSIGNMENTS. COMPUTER MUST RUN WINDOWS 7, 8, OR 10, OR MAC OS/X 10.6 AND LATER. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 121 PROBLEM SOLVING W/COMPUTERS  Neena Thota, Gordon Anderson	COMPLETION OF THE R1 GEN ED (OR A SCORE OF 20 OR HIGHER ON THE MATH PLACEMENT TEST PART A), OR ONE OF THE FOLLOWING COURSES: MATH 101&102 OR MATH 104 OR MATH 127 OR MATH 128 OR MATH 131 OR MATH 132.	UNDERGRADUATE STUDENTS ONLY.	INTENDED FOR COMPSCI MAJORS OR THOSE APPLYING TO THE MAJOR. NON-MAJORS SHOULD TAKE COMPSCI 119 OR COMPSCI 190F. ATTENDANCE IN LECT AND LAB IS MANDATORY. ICLICKER IS REQUIRED. FOR QUESTIONS ABOUT 121 COURSE ADMINISTRATION, CONTACT CS121admin@cs.umass.edu. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 186 USING DATA STRUCTURES  Marc Liberatore	COMPSCI 121 WITH A GRADE OF C OR BETTER AND BASIC MATH SKILLS (R1).	UNDERGRADUATES ONLY.	WAS COMPSCI 190D. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.

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COMPSCI 187 PROGRAMMING W/DATA STRCTRS  Mark Corner, Meng-Chieh Chiu	COMPSCI 121 WITH A GRADE OF B OR BETTER (OR COMPSCI 186 (OR COMPSCI 190D) WITH A GRADE OF C OR BETTER).	UNDERGRADUATE CS MAJORS ONLY.	THE PREREQUISITE FOR COMPSCI 187 REQUIRES A GRADE OF B OR BETTER IN 121 (OR C OR BETTER IN COMPSCI 186(WAS COMPSCI 190D). ATTEND LAB EVEN IF BEFORE FIRST CLASS MEETING. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 190F FOUNDATIONS OF DATA SCIENCE  Benjamin Marlin, Patrick Flaherty	PREREQUISITE: COMPLETION OF THE R1 GENERAL EDUCATION REQUIREMENT (OR A SCORE OF 20 OR HIGHER ON THE MATH PLACEMENT EXAM, PART A) OR ONE OF THE FOLLOWING COURSES: MATH 101 & 102, MATH 104, 127, 128, 131, OR 132.	UNDERGRADUATE STUDENTS IN MAJORS OTHER THAN COMPUTER SCIENCE, INFORMATICS, AND MATH + STATISTICS.	CROSS-LISTED WITH STATISTC 190F. CS, INFORMATICS, AND MATH + STATS MAJORS ARE NOT ELIGIBLE. LAB SECTIONS COMPSCI/STAT 190F-01LQ PROVIDE COMPUTER WORKSTATIONS FOR STUDENT USE DURING LABS. STUDENTS REGISTERED FOR OTHER LAB SECTIONS WILL NEED TO BRING A LAPTOP WITH A REASONABLY UP-TO-DATE WEB BROWSER.
COMPSCI 197C ST-PGMG IN C Abhishek Somani	COMPSCI 186 OR 187 WITH A GRADE OF C OR BETTER.	FRESHMEN AND SOPHOMORE UNDERGRADUATES ONLY.	STUDENTS WHO HAVE TAKEN COMPSCI 230 ARE NOT ELIGIBLE FOR THIS COURSE. COURSE RUNS FOR 6 WEEKS (9/12, 9/19, 9/26, 10/3, 10/10, and 10/17). CS MINORS AND APPLICANTS-ON-CONTRACT NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides. STUDENTS ARE ENCOURAGED TO BRING A LAPTOP. WINDOWS USERS SHOULD DOWNLOAD PUTTY HERE: http://www.chiark.greenend.org/~sgtatham/putty/download.html.
COMPSCI 198J P-HIGH SCHOOL TEACHING PRACTICUM  David Barrington	COMPSCI 121 AND COMPSCI 187 BOTH WITH A GRADE OF A- OR BETTER.	UNDERGRADUATES ONLY.	INSTRUCTOR CONSENT REQUIRED. MAY BE REPEATED FOR CREDIT.
COMPSCI 220 PGMG METHODOLOGY  Joydeep Biswas	COMPSCI 187 WITH A GRADE OF 'C' OR BETTER.	CS MAJORS ONLY.	STUDENTS ARE STRONGLY ADVISED NOT TO TAKE 220/230 IN THE SAME SEMESTER. DUE TO ENROLLMENT PRESSURE, THE UPC RESERVES THE RIGHT TO DROP STUDENTS ENROLLED IN BOTH FROM EITHER COURSE WHEN NECESSARY. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 230 CMPTR SYS PRINC  Meng-Chieh Chiu, Nic Herndon	COMPSCI 187 WITH A GRADE OF 'C' OR BETTER.	CS MAJORS ONLY.	STUDENTS ARE STRONGLY ADVISED NOT TO TAKE 220/230 IN THE SAME SEMESTER. DUE TO ENROLLMENT PRESSURE, THE UPC RESERVES THE RIGHT TO DROP STUDENTS ENROLLED IN BOTH FROM EITHER COURSE WHEN NECESSARY. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 240 RSNG UNDER UNCERTAINTY Sunghoon Lee, Jie Xiong	COMPSCI 187 AND MATH 132 WITH A GRADE OF 'C' OR BETTER.	CS MAJORS ONLY.	STUDENTS ARE ADVISED NOT TO TAKE 240/250 IN THE SAME SEMESTER. DUE TO ENROLLMENT PRESSURE, THE UPC RESERVES THE RIGHT TO DROP STUDENTS ENROLLED IN BOTH FROM EITHER COURSE WHEN NECESSARY. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 250 INTRO TO COMPUTATION  David Barrington, Marius Minea	MATH 132 AND COMPSCI 187 WITH GRADE OF 'C' OR BETTER.	CS AND MATH MAJORS ONLY.	STUDENTS ARE ADVISED NOT TO TAKE 240/250 IN THE SAME SEMESTER. DUE TO ENROLLMENT PRESSURE, THE UPC RESERVES THE RIGHT TO DROP STUDENTS ENROLLED IN BOTH FROM EITHER COURSE WHEN NECESSARY. CSENG MAJORS WILL BE ACCEPTED IF AVAILABLE SEATS. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 305 SOC ISS IN CMPTNG  Justin Obara, Michelle Trim	ENGLWRIT 112 (OR ENGLWRIT 000 WAIVER) AND COMPSCI 220 (OR COMPSCI 230) AND COMPSCI 240 (OR COMPSCI 250), ALL WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	SATISFIES JUNIOR YEAR WRITING REQUIREMENT. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 311 INTRO TO ALGORITHMS  Marius Minea	COMPSCI 187 AND COMPSCI 250 (OR MATH 455) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.

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COMPSCI 320 INTRO TO SOFTWARE ENGINEERING  Gordon Anderson, Neena Thota	COMPSCI 220 WITH GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	SATISFIES INTEGRATIVE EXPERIENCE REQUIREMENT FOR CS MAJORS. CSENG MAJORS WILL BE ADMITTED ONLY IF SPACE ALLOWS. MEETS WITH COMPSCI 529. AN OPTIONAL HONORS COLLOQUIUM IS AVAILABLE FOR THIS COURSE. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 325 INTRO TO HUMAN CMPTR INTERACTN  Eva Hudlicka		JUNIOR AND SENIOR CS MAJORS ONLY.	COURSE TAUGHT IN MIXED FORMAT, WITH BOTH ON-LINE (LECTS) AND IN-CLASS COMPONENTS (WEEKLY DISCUSSION GROUPS AND STUDIOS). ATTENDANCE OF SOME STUDIO CLASSES WILL BE REQUIRED. SEVERAL PROJECT PRESENTATIONS THROUGHOUT SEMESTER. STUDENTS ENCOURAGED TO USE AVAILABLE CLASS TIME TO WORK ON TEAM PROJECTS. 50 SEATS RESERVED FOR CS MAJORS. JUNIOR AND SENIOR INFORMATICS (BDIC) MAJORS WHO CANNOT ENROLL ON SPIRE SHOULD REQUEST OVERRIDE. IN ADDITION TO REQUESTING AN OVERRIDE, FIVE COLLEGE STUDENTS WISHING TO ENROLL FIRST SUBMIT A BRIEF STATEMENT OF INTEREST TO THE INSTRUCTOR, AND A BRIEF LETTER OF RECOMMENDATION FROM THEIR ADVISOR. THIS LETTER MUST INCLUDE STUDENT CURRENT GPA. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 326 WEB PROGRAMMING Timothy Richards	COMPSCI 220 (OR COMPSCI 230) WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	SATISFIES INTEGRATIVE EXPERIENCE REQUIREMENT FOR CS MAJORS. INFORMATICS STUDENTS NOT MEETING PREREQUISITE WHO HAVE SUCCESSFULLY COMPLETED COMPSCI 187 MAY BE ALLOWED WITH PERMISSION OF INSTRUCTOR IF AVAILABLE SEATS. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 328  MOBILE HEALTH SENSING&ANALYTCS  Deepak Ganesan, Jeremy Gummeson	COMPSCI 187 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	INFORMATICS (BDIC) WHO CANNOT ENROLL ON SPIRE SHOULD REQUEST OVERRIDE. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/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.	AN HONORS COLLOQUIUM IS AVAILABLE FOR THIS COURSE. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 345 PRACT & APPLICS OF DATA MGMT Alexandra Meliou	COMPSCI 187 WITH A GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS ARE EXPECTED TO HAVE BASIC PROGRAMMING SKILLS, AND BE ABLE TO USE LAPTOPS IN CLASS. STUDENTS WHO HAVE TAKEN COMPSCI 445 ARE NOT ELIGIBLE. INFORMATICS (BDIC) MAJORS SHOULD REQUEST AN OVERRIDE IF UNABLE TO ENROLL ON SPIRE. OTHER NON-CS MAJORS WHO MEET PREREQUISITE WILL BE CONSIDERED WITH INSTRUCTOR PERMISSION IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 377 OPERATING SYSTEMS Timothy Richards	COMPSCI 230 WITH A GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	DISCUSSION MEETS AFTER FIRST LECTURE. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION (INSTRUCTOR PERMISSION IF NOT MEETING PREREQUISITE) MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 383 ARTIFICIAL INTELLIGENCE  Matthew Rattigan	COMPSCI 220 (OR COMPSCI 230) AND COMPSCI 240 (OR STAT 515), BOTH WITH GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 391L S-CMPTR CRIME LAW:INVSTG/PRVCY  Marc Liberatore	COMPSCI 230 AND ENGLWRIT 112 WITH A GRADE OF 'C' OR BETTER, OR CW G.ED. REQUIREMENT.	JUNIOR AND SENIOR CS MAJORS ONLY.	CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.

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COMPSCI 398L CSED: LDRSHP PRNCPLS AND PRCTC  David Wemhoener	COMPSCI 186 OR COMPSCI 187 WITH A GRADE OF B+ OR BETTER.		COURSE IS ASSOCIATED WITH CICS UCA EMPLOYMENT. REQUIRED COMPONENT OF UCA CONTRACT. REGISTRATION WILL BE PROCESSED BY GRADUATE PROGRAM MANAGER AFTER SIGNED AND APPROVED CONTRACT. OPEN TO CICS UCAS ONLY.
COMPSCI 410 COMPILER TECHNIQUES  J Moss	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: https://www.cics.umass.edu/overrides.
COMPSCI 453 COMPUTER NETWORKS  Parviz Kermani	COMPSCI 230 (OR COMPSCI 377) WITH A GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS WHO ARE NOT CS MAJORS BUT HAVE SUFFICIENT PROGRAMMING EXPERIENCE, CS GRADUATE STUDENTS, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 460 INTRO COMPUTER/NETWRK SECURITY  Amir Houmansadr	COMPSCI 377 WITH GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 491IP S-PGMG THE IPHONE AND IPAD  Charles Weems	COMPSCI 320 OR 326 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS NEED ACCESS TO AN INTEL PROCESSOR MACHINE (PREFERABLY A LAPTOP FOR USE IN CLASS) RUNNING THE MOST RECENT VERSION OF OSX, AND WILL BE REQUIRED TO JOIN THE APPLE DEVELOPER PROGRAM TO USE THE NECESSARY SOFTWARE. IF USING A HACKINTOSH, STUDENTS ARE STRONGLY ADVISED TO FIRST CHECK COMPATIBILITY WITH THE DEVELOPMENT KIT AND SIMULATOR. COMPSCI 326 AS A PREREQUISITE WITH INSTRUCTOR PERMISSION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 497P ST-PGMG LANGS Arjun Guha	COMPSCI 220, COMPSCI 230 AND COMPSCI 250 ALL WITH GRADE OF A.	CS MAJORS ONLY.	PERMISSION OF INSTRUCTOR REQUIRED. MEETS WITH COMPSCI 631. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 503  EMBEDDED COMPUTING SYSTEMS  Roderic Grupen	UNDERGRADUATES: COMPSCI 383 (OR COMPSCI 403; M&I-ENG 310; M&I-ENG 313; M&I-ENG 397B; E&C-ENG 313; E&C-ENG 323; E&C-ENG 353) WITH A GRADE OF 'C' OR BETTER.	Lect 01: JUNIOR AND SENIOR UNDERGRADUATE STUDENTS ONLY. Lect 02: MS-CMPSCI, MS-EE, AND MS-ME STUDENTS ONLY.	ATTEND FIRST CLASS MEETING. INSTRUCTOR WILL COMBINE STUDENTS WITH COMPLEMENTARY BACKGROUNDS INTO TEAMS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 514  ALGORITHMS FOR DATA SCIENCE  Arya Mazumdar	UNDERGRADUATES: COMPSCI 240 AND COMPSCI 311 WITH A GRADE OF B+ OR BETTER.	Lect 01: JUNIOR AND SENIOR CS MAJORS ONLY. Lect 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD IN LECT 02 FOR INCOMING STUDENT REGISTRATION. WAS COMPSCI 590D. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 520 THEORY AND PRACTICE-SOFTENGIN Yuriy Brun	UNDERGRADUATES MUST HAVE COMPLETED COMPSCI 320 WITH A GRADE OF C OR BETTER.	Lect 01: JUNIOR AND SENIOR CS MAJORS ONLY. Lect 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD IN LECT 02 FOR INCOMING STUDENT REGISTRATION. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 529  SOFTWARE ENGINEERING PROJ MGMT  Gordon Anderson, Neena Thota	COMPSCI 320 WITH A GRADE OF A- OR BETTER.		PERMISSION OF INSTRUCTOR REQUIRED. MEETS WITH COMPSCI 320. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.

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COMPSCI 575 COMBINATORICS AND GRAPH THEORY  David Barrington	UNDERGRADUATES WITH COMPSCI 250 (OR MATH 455) WITH A GRADE OF B OR BETTER.	Lect 01: JUNIOR AND SENIOR UNDERGRADUATES ONLY. Lect 02: MS-CMPSCI GRADUATE STUDENTS ONLY.	CROSS-LISTED WITH MATH 513. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. IF NOT MEETING PREREQUISITES, STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 585 INTRO NATURAL LANG PROCESSING Mohit lyyer	UNDERGRADUATES: COMPSCI 220 (OR COMPSCI 230) AND COMPSCI 240, BOTH WITH A GRADE OF C OR BETTER.	Lect 01: JUNIOR AND SENIOR CS MAJORS ONLY. Lect 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. AN ALTERNATE PREREQUISITE OF LINGUIST 492B IS ACCEPTABLE FOR LINGUISTICS MAJORS; LINGUISTICS STUDENTS WITH PROGRAMMING AND PROBABILITY EXPERIENCE WILL LIKELY BE ADMITTED AND ENCOURAGED TO CONTACT INSTRUCTOR. STUDENTS FROM OTHER DISCIPLINES WILL BE CONSIDERED AS WELL. SEATS HELD IN LECT 02 FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 589  MACHINE LEARNING  Brendan O'Connor	UNDERGRADUATES: COMPSCI 383 AND MATH 235 WITH A GRADE OF C OR BETTER.	Lect 01: JUNIOR AND SENIOR CS MAJORS ONLY. Lect 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. STUDENTS MAY REQUEST TO TAKE MATH 235 LINEAR ALGEBRA AS A CO-REQUISITE WITH INSTRUCTOR PERMISSION. SEATS HELD IN LECT 02 FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 590A SYSTEM DEFENSE AND TEST  Parviz Kermani		CMPSCI AND ECE GRADUATE STUDENTS ONLY.	INSTRUCTOR PERMISSION IS REQUIRED, AND IT IS STRONGLY RECOMMENDED THAT STUDENTS HAVE ALREADY TAKEN COMPSCI 460 OR COMPSCI 660 OR CICS 597C BEFORE ENROLLING IN THIS CLASS.  THIS COURSE WAS INFOSEC 690S.
COMPSCI 590E  ETHICAL CONSIDRTNS IN COMPUTNG  Michelle Trim		MS-CMPSCI STUDENTS ONLY.	SEATS HELD FOR INCOMING STUDENT REGISTRATION. UNDERGRADUATE CS MAJORS WITH INSTRUCTOR PERMISSION (COURSE DOES NOT COUNT TOWARD CS MAJOR REQUIREMENTS). STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 590N INTRO NUMRICL CMPTNG W/PYTHON  David Wemhoener		GRADUATE STUDENTS ONLY.	ONLINE OFFERING. COURSE RUNS FOR 6 WEEKS (9/4/18-10/16/18: 10/08-NO CLASS). 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: https://www.cics.umass.edu/overrides.
COMPSCI 590R  APPLIED INFORMATION RETRIEVAL  David Fisher	UNDERGRADUATES: COMPSCI 320 AND COMPSCI 383 (OR COMPSCI 446 OR COMPSCI 585) WITH C OR BETTER.	Lect 01: JUNIOR AND SENIOR UNDERGRADUATES ONLY. Lect 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS SAVED IN LECT 02 FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 590S SYSTEMS FOR DATA SCIENCE  Marco Serafini	UNDERGRADUATES: COMPSCI 311, COMPSCI 345, AND COMPSCI 377, ALL WITH A GRADE OF B OR BETTER.	Lect 01: JUNIOR AND SENIOR CS MAJORS ONLY. Lect 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS HELD IN LECT 02 FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 591CF S-CYBERSECURITY LECTURE SERIES  Brian Levine, Amir Houmansadr, Wayne Burleson, Daniel Holcomb, Krista Gile			MEETS WITH ECE 591CF, MATH 591CF, SCH-MGMT 697CB. MAY BE REPEATED FOR CREDIT UP TO 2 TIMES. MANDATORY SAT/UN GRADING. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 591M S-BIOINFO AND COMPUTATNL BIO  Edward Rietman	UNDERGRADS: COMPSCI 240 or STAT 515 WITH A GRADE OF C OR BETTER.	Sem 01: JUNIOR AND SENIOR CS MAJORS ONLY. Sem 02: MS-CMPSCI STUDENTS ONLY.	STUDENTS ARE REQUIRED TO HAVE A BACKGROUND IN PROGRAMMING LANGUAGES LIKE PYTHON OR C AS WELL AS SCRIPTING LANGUAGES LIKE PERL, AWK, OR BASH. IF SEATS ARE AVAILABLE, OTHERS MAY BE CONSIDERED VIA INSTRUCTOR PERMISSION. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.

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COMPSCI 592C S - DIGITAL CIVICS Narges Mahyar	UNDERGRADUATES: COMPSCI 220(OR 230) AND COMPSCI 325 WITH A GRADE OF C OR BETTER.	Sem 01: JUNIOR AND SENIOR CS MAJORS ONLY. Sem 02: MS-CMPSCI STUDENTS ONLY.	SEM 01 FOR UNDERGRADS; SEM 02 FOR GRADS.
COMPSCI 610 COMPILER TECHNIQUES  J Moss		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 STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 611  ADVANCED ALGORITHMS  Ramesh Sitaraman		CMPSCI GRADUATE STUDENTS ONLY.	INSTRUCTOR PERMISSION REQUIRED FOR UNDERGRADUATE CS MAJORS CLEARED BY THE UPD, IF AVAILABLE SEATS. 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 631 PROGRAMMING LANGUAGES  Arjun Guha		CMPSCI GRADUATE STUDENTS ONLY.	MEETS WITH COMPSCI 497P. 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 645  DB DSGN & IMPLMNTN  Gerome Miklau		CMPSCI GRADUATE STUDENTS ONLY.	STUDENTS SHOULD HAVE TAKEN AN UNDERGRADUATE LEVEL COURSE ON OPERATING SYSTEMS OR DATABASES. 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 646 INFORMATION RETRIEVAL Hamed Zamani		CMPSCI GRADUATE STUDENTS ONLY.	PERMISSION OF INSTRUCTOR FOR SENIOR CS MAJORS WHO MEET THE PREREQUISITE OF COMPSCI 445 OR 446 WITH A GRADE OF C OR BETTER, IF SEATS ARE AVAILABLE. SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 653 COMPUTER NETWORKING Arun Venkataramani		CMPSCI GRADUATE STUDENTS ONLY.	ECE GRADUATE STUDENTS IF AVAILABLE SEATS. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 655 PERFORMANCE EVALUATION Philippe Nain		CMPSCI GRADUATE STUDENTS ONLY.	UNDERGRADUATE OR GRADUATE COURSE ON PROBABILITY THEORY. WAS COMPSCI 690PE. 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 670 COMPUTER VISION Subhransu Maji		CMPSCI 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 STUDENT REGISTRATION. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 682  NEURAL NETWORKS:MODERN INTRO  Erik Learned-Miller		CMPSCI, ECE, LINGUISTICS, AND MATH AND STATS GRADUATE STUDENTS ONLY.	PREREQUISITES: BASIC FAMILIARITY WITH AI/COGNITIVE SCIENCE/MACHINE LEARNING. BASIC KNOWLEDGE OF GRADIENT-BASED OPTIMIZATION. MULTIVARIATE CALCULUS, LINEAR ALGEBRA, ALGORITHMIC ANALYSIS, PROBABILITY; STATISTICS, PROGRAMMING IN PYTHON OR EQUIVALENT HIGH LEVEL LANGUAGE. SEATS HELD FOR INCOMING 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 687 REINFORCEMENT LEARNING Philip Thomas		CMPSCI, MIE, MATH AND EE GRADUATE STUDENTS ONLY.	A BACKGROUND IN MACHINE LEARNING (COMPSCI 589 AND COMPSCI 689) AND ARTIFICIAL INTELLIGENCE (COMPSCI 683) ARE ASSUMED. FAMILIARITY WITH AN OBJECT ORIENTED PROGRAMMING LANGUAGE IS REQUIRED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 689  MACHINE LEARNING  Benjamin Marlin		CMPSCI GRADUATE STUDENTS ONLY.	PERMISSION OF INSTRUCTOR FOR CS MAJORS MEETING THE PREREQUISITE OF MATH 132 AND MATH 235, AND EITHER STATISTCS 515 OR 607 OR 608, IF CLEARED BY THE UPD AND AVAILABLE SEATS. 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 690AA  APPRX ALGRTHM/CMBNTRL OPTMZTN  Barna Saha		CMPSCI GRADUATE STUDENTS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
COMPSCI 6910 S-TOOLS-EXPLANATORY/TUTRNG SYS  Beverly Woolf		GRADUATE STUDENTS ONLY.	SEATS ARE RESERVED FOR MA EDUC MAJORS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 692P S-HotTopics/SoftwareEnginRsrch  Yuriy Brun		CMPSCI GRADUATE STUDENTS 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 701 ADV TOPICS IN CMPSCI		DOCTORAL, MASTERS CMPSCI GRADUATE STUDENTS ONLY.	REQUEST OVERRIDE VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 890T TAS AS TOMORROW'S FACULTY  Neena Thota			COURSE IS ASSOCIATED WITH CICS TA EMPLOYMENT. REQUIRED COMPONENT OF TA CONTRACT. REGISTRATION WILL BE PROCESSED BY GRADUATE PROGRAM MANAGER AFTER SIGNED AND APPROVED CONTRACT. OPEN TO CICS TEACHING ASSISTANTS ONLY.
COMPSCI 891M S-THEORY OF COMPUTATION  Barna Saha		DOCTORAL, MASTERS GRADUATE STUDENTS ONLY.	MAY BE REPEATED FOR CREDIT UP TO 6 TIMES. OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 899 PHD DISSERTATION			COURSE OPEN ONLY TO CS GRADUATE STUDENTS WHO HAVE PASSED PORTFOLIO. REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI H320  HNRS COLLOQ: SOFTW ENGINEERING  Leon Osterweil	COMPSCI 220 WITH A GRADE OF C OR BETTER.	OPEN TO SENIOR AND JUNIOR COMPUTER SCIENCE MAJORS IN COMMONWEALTH HONORS COLLEGE.	STUDENTS MUST BE ENROLLED IN COMPSCI 320. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.

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COMPSCI H335  HNRS COLLOQ: INSIDE THE BOX  Charles Weems	COMPSCI 220 (OR COMPSCI 230) WITH A GRADE OF C OR BETTER.	OPEN TO SENIOR AND JUNIOR COMPUTER SCIENCE MAJORS IN COMMONWEALTH HONORS COLLEGE.	STUDENTS MUST BE ENROLLED IN COMPSCI 335. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI H585  HNRS COLLOQ: INTRO TO NLP  Brendan O'Connor	COMPSCI 220 (OR COMPSCI 230) AND COMPSCI 240, BOTH WITH A GRADE OF C OR BETTER.	OPEN TO SENIOR AND JUNIOR COMPUTER SCIENCE MAJORS IN COMMONWEALTH HONORS COLLEGE.	STUDENTS MUST BE ENROLLED IN COMPSCI 585. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI H589  HNRS COLLOQ: MACHINE LEARNING  STAFF, Amirmohammad Rooshenas	COMPSCI 383 AND MATH 235 WITH A GRADE OF C OR BETTER.	OPEN TO SENIOR AND JUNIOR COMPUTER SCIENCE MAJORS IN COMMONWEALTH HONORS COLLEGE.	STUDENTS MUST BE ENROLLED IN COMPSCI 589. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/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 (BDIC). STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
INFO 150  MATH FOUND-INFORMATICS  Peter Haas		NON-CS AND NON-MATH UNDERGRADUATE MAJORS ONLY.	CS AND MATH MAJORS ARE NOT ELIGIBLE FOR THIS COURSE. R1 MATH USEFUL; NOT ABSOLUTELY REQUIRED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.