SPIRE REGISTRATION INFORMATION for 2019 Spring

	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS *INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.*
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.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 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 CS MAJORS OR THOSE APPLYING TO THE MAJOR. NON-MAJORS MAY OPT TO 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 145 REP,STORNG&RET INFO *William Verts*	R1.	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 186 USING DATA STRUCTURES *Marc Liberatore*	COMPSCI 121 WITH A GRADE OF C OR BETTER AND BASIC MATH SKILLS (R1).	SOPHOMORE AND FRESHMAN UNDERGRADUATES ONLY.	WAS COMPSCI 190D. AFTER FRESHMEN REGISTRATION, PLAN TO OPEN TO SOPHOMORES IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 187 PROGRAMMING W/DATA STRCTRS *Gordon Anderson, 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 (OR 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 197C ST-PGMG IN C *Srideepika Jayaraman*	COMPSCI 186 OR 187 WITH A GRADE OF C OR BETTER.	UNDERGRADUATE CS MAJORS ONLY.	STUDENTS WHO HAVE TAKEN COMPSCI 230 ARE NOT ELIGIBLE FOR THIS COURSE. COURSE RUNS FOR 6 WEEKS (1/30, 2/6, 2/13, 2/20, 2/27, and 3/6). 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 197U ST-A HANDS-ON INTRO TO UNIX *Arun Dunna*		*UNDERGRADUATE CS MAJORS ONLY.*	COURSE RUNS FOR 6 WEEKS (1/28/19-3/6/19: 1/28, 1/30, 2/4, 2/6, 2/11, 2/13, 2/19, 2/20, 2/26, 2/28, 3/4, 3/7). ADD/DROP THROUGH 2/4. INSTRUCTOR CONSENT REQUIRED TO WITHDRAW 2/5-2/8 ONLY. 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.
COMPSCI 198J P-HIGH SCHOOL TEACHING PRACTICUM *Ramesh Sitaraman*	COMPSCI 121 AND COMPSCI 187 BOTH WITH A GRADE OF A- OR BETTER.	UNDERGRADUATES ONLY.	INSTRUCTOR CONSENT REQUIRED. MAY BE REPEATED FOR CREDIT.

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COMPSCI 220 PGMG METHODOLOGY *Arjun Guha, Meng-Chieh Chiu*	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 *Timothy Richards, 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 *Nic Herndon, Shiting Lan*	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 *Marius Minea, Swarna Reddy*	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. OPEN TO CSENG MAJORS WITH ECE 241 (OR ECE 242) WITH C OR BETTER, 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 *Michelle Trim, Justin Obara*	ENGLWRIT 112 (OR ENGLISH WRITING WAIVER), COMPSCI 220, COMPSCI 230 AND COMPSCI 240 (OR 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 *Daniel Sheldon, 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.
COMPSCI 320 INTRO TO SOFTWARE ENGINEERING *David Fisher, Neena Thota*	COMPSCI 220 WITH GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	SATISFIES INTEGRATIVE EXPERIENCE REQUIREMENT FOR CS MAJORS. MEETS WITH COMPSCI 529. 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 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 (BDIC) MAJORS MAY BE ALLOWED IF AVAILABLE SEATS. 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 MAY BE ALLOWED IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 348 PRINCIPLES OF DATA SCIENCE *David Jensen*	COMPSCI 187, COMPSCI 240, AND COMPSCI 250 (OR MATH 455), ALL WITH A GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.

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COMPSCI 365 DIGITAL FORENSICS *Marc Liberatore*	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/overrides.
COMPSCI 370 INTRO TO COMPUTER VISION *Subhransu Maji*	COMPSCI 240 OR COMPSCI 383 WITH A GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	A BACKGROUND IN LINEAR ALGEBRA (MATH 235) IS RECOMMENDED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 373 INTRO TO COMPUTER GRAPHICS *Rui Wang*	COMPSCI 187 AND INFO 150 OR MATH 235 OR COMPSCI 240) BOTH WITH A GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS WHO HAVE TAKEN COMPSCI 473 ARE NOT ELIGIBLE. STUDENTS WHO HAVE TAKEN 373 CANNOT TAKE COMPSCI 497C SPECIAL TOPICS IN COMPUTER GRAPHICS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 377 OPERATING SYSTEMS *Mark Corner*	COMPSCI 230 WITH A GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	DISCUSSION MEETS AFTER FIRST LECTURE. 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.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 403 INTRO ROBTCS:PRCP,MECH,DYN, CTRL *Roderic Grupen*	MATH 235 AND COMPSCI 220 (OR COMPSCI 230) WITH GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	UNDERGRADUATE PROGRAMMING CLASS, C OR C++ EXPERIENCE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 446 SEARCH ENGINES *David Fisher*	COMPSCI 240 OR COMPSCI 383 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/overrides.
COMPSCI 453 COMPUTER NETWORKS *Arun Venkataramani*	COMPSCI 230 (OR COMPSCI 377) WITH A GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 466 APPLIED CRYPTOGRAPHY *Adam O'Neill*	COMPSCI 311 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	STUDENTS WHO HAVE TAKEN HIGHER-LEVEL MATHEMATICS (IN PARTICULAR MATH 411, MATH 455, MATH 471, OR MATH 513 (COMPSCI 575)) ARE PARTICULARLY INVITED TO ATTEND. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 490P *SECURE DISTRIBUTED SYSTEMS* *Brian Levine*	*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. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides

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COMPSCI 490S SOFTWARE ENTREPRENEURSHIP *Neena Thota*	COMPSCI 326 (OR COMPSCI 320) 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/overrides
COMPSCI 491G S-COMPUTER NETWORKING LAB *Parviz Kermani*	COMPSCI 453 WITH A GRADE OF C OR BETTER.	JUNIOR AND SENIOR CS MAJORS ONLY.	CLASS MEETS IN LGRC A310 ONLY FOR INITIAL CLASS ORIENTATION. FUTURE CLASS MEETINGS WILL BE BY ARRANGEMENT WITH INSTRUCTOR. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 501 FORMAL LANGUAGE THEORY *Marius Minea*	UNDERGRADUATES: COMPSCI 311 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. IT IS RECOMMENDED THAT UNDERGRADUATE STUDENTS HAVE A B- OR BETTER IN COMPSCI 311 IN ORDER TO ATTEMPT 501. 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 514 ALGORITHMS FOR DATA SCIENCE *Barna Saha*	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 GRAD STUDENT REGISTRATION. WAS COMPSCI 590D. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 529 SOFTWARE ENGINEERING PROJ MGMT *David Fisher, 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.
COMPSCI 535 COMPUTER ARCHITECTURE *Charles Weems*	UNDERGRADUATES: COMPSCI 335 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 NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 574 INTELLIGENT VISUAL COMPUTING *Evangelos Kalogerakis*	UNDERGRADUATES: COMPSCI 311, COMPSCI 383, COMPSCI 373 (OR COMPSCI 473), ALL WITH A GRADE OF B OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.	PREVIOUSLY COMPSCI 590IV. MEETS WITH COMPSCI 674. LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. SEATS SAVED IN LECT 02 FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 589 MACHINE LEARNING *Justin Domke, Swarna Reddy*	UNDERGRADUATES: COMPSCI 383 AND MATH 235 WITH A GRADE OF C OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02/03: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02/03 FOR GRADS. STUDENTS MAY REQUEST TO TAKE MATH 235 LINEAR ALGEBRA AS A CO-REQUISITE WITH INSTRUCTOR PERMISSION. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. GRADUATE STUDENTS IN ECE, MATH, STATS IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 590F ADVANCED DIGITAL FORENSICS *Marc Liberatore*	UNDERGRADUATES: COMPSCI 365 OR 377 WITH A GRADE OF C OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: CMPSCI GRADUATE STUDENTS ONLY. CPE LECT 01/02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS (REQUIRES DEPARTMENT CONSENT): CS GRADS (CICS RA OR TA CONTRACTED). STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides. CPE SECTION -01: ONLINE COURSE FOR GRADUATE STUDENTS ONLY. REGISTRATION FOR CPE SECTION: https://www.umass.edu/cpe/ CPE SECTION -02: IN-PERSON CPE COURSE MEETS WITH UNIVERSITY UNDERGRADUATE/GRADUATE SECTIONS (-01 and -02). REGISTRATION FOR CPE SECTION: https://www.umass.edu/cpe/

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COMPSCI 590G GAME PROGRAMMING *Evangelos Kalogerakis*	UNDERGRADUATES: COMPSCI 220, COMPSCI 311, AND MATH 235 ALL WITH A GRADE OF C OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS ONLY. LECT 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 590U *MOBILE AND UBIQ COMPUTING* *Tauhidur Rahman*	UNDERGRADUATES: COMPSCI 230 AND COMPSCI 240 WITH A GRADE OF C OR BETTER.	LECT 01: JUNIOR AND SENIOR CS MAJORS. LECT 02: MS-CMPSCI STUDENTS ONLY.	LECT 01 FOR UNDERGRADS; LECT 02 FOR GRADS. 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: https://www.cics.umass.edu/overrides.
COMPSCI 590V DATA VISUALIZATION&EXPLORATION *Ali Sarvghad Batn Moghaddam*	UNDERGRADUATES: COMPSCI 220 (OR COMPSCI 230), 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 FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 591A *S-CELLULR AUTOMATA & ARTF LIFE* *Edward Rietman*	UNDERGRADUATES: COMPSCI 250 WITH A GRADE OF C OR BETTER.	SEM 01: JUNIOR AND SENIOR CS MAJORS ONLY. SEM 02: MS-CMPSCI GRADUATE STUDENTS ONLY.	*SECTION 01 FOR UNDERGRADS; SECTION 02 FOR GRADS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.*
COMPSCI 597N ST-COMPUTER AND NTWRK SECURTY *Parviz Kermani*		UNIV LECT 01: CMPSCI GRADUATE STUDENTS ONLY. CPE LECT 01: MS-CMPSCI STUDENTS ONLY.	LECT 01: REQUIRES DEPARTMENT CONSENT. CS GRADS (CICS RA/TA CONTRACTED). STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides. CPE LECT 01: REGISTRATION FOR CPE SECTION: https://www.umass.edu/cpe
COMPSCI 601 COMPUTATION THEORY *Neil Immerman*		CMPSCI GRADUATE STUDENTS ONLY.	PREREQUISITES: AN UNDERGRADUATE COURSE IN AUTOMATA THEORY AND FORMAL LANGUAGES SUCH AS COMPSCI 501 OR PERMISSION OF INSTRUCTOR. INSTRUCTOR PERMISSION REQUIRED FOR UNDERGRADUATE CS MAJORS CLEARED BY THE UPD, IF AVAILABLE SEATS. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 603 ROBOTICS *Joydeep Biswas*		CMPSCI GRADUATE STUDENTS ONLY.	A BACKGROUND IN LINEAR ALGEBRA, DIFFERENTIAL EQUATIONS, AND PROGRAMMING SKILLS ARE ASSUMED. INSTRUCTOR PERMISSION REQUIRED FOR UNDERGRADUATE CS MAJORS CLEARED BY THE UPD, IF AVAILABLE SEATS. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 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 GRAD 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*		CMPSCI GRADUATE STUDENTS ONLY.	PREREQUISITE OF COMPSCI 460 OR COMPSCI 466, OR EQUIVALENT. INSTRUCTOR PERMISSION REQUIRED FOR UNDERGRADUATE CS MAJORS 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.

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COMPSCI 661 *SECURE DISTRIBUTED SYSTEMS* Brian Levine		UNIV LECT 01: CMPSCI GRADUATE STUDENTS ONLY. CPE LECT 01: *MS-CMPSCI AND ECE GRADUATE STUDENTS ONLY.* CPE LECT 02: GRADUATE STUDENTS ONLY.	COURSE PREVIOUSLY COMPSCI 690P. 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. ATTENDANCE AT INTERACTIVE SESSIONS FOR THE ONLINE SECTION IS REQUIRED. ONLINE STUDENTS MUST COMPLETED PROCTORED EXAMS (BY COMING TO CAMPUS OR HIRING A SERVICE) AT THE SAME DAY/TIME AS IN-PERSON STUDENTS. REGISTRATION FOR UNIV SECTION (IN-PERSON) IS OPEN TO CS GRADS (CICS RA OR TA CONTRACTED). STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides
COMPSCI 674 INTELLIGENT VISUAL COMPUTING Evangelos Kalogerakis		CMPSCI GRADUATE STUDENTS ONLY.	PREVIOUSLY COMPSCI 690IV. MEETS WITH COMPSCI 574. CMPSCI GRADUATES AND OTHERS ARE ASSUMED TO HAVE SUCCESSFULLY COMPLETED PREREQS OR EQUIV: COMPSCI 311, 383, AND 373 (OR 473), ALL WITH A GRADE OF A- OR BETTER. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 677 DISTRIBUTED AND OPERATING SYS Prashant Shenoy		LECT 01: CMPSCI GRADUATE STUDENTS ONLY. LECT 02: GRADUATE STUDENTS ONLY.	LECT 02 IS ON-LINE. 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. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 683 ARTIFICIAL INTELLIGENCE Madalina Fiterau Brostean		CMPSCI GRADUATE STUDENTS ONLY.	STUDENTS WHO HAVE TAKEN AN UNDERGRADUATE AI COURSE PREFERRED. SEATS HELD FOR INCOMING GRAD STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 688 PROBABILISTIC GRAPHICAL MODELS Justin Domke		*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 690A ADVANCED METHODS IN HCI Narges Mahyar		CMPSCI GRADUATE STUDENTS ONLY.	WHILE THERE ARE NO SET PREREQUISITES, FAMILIARITY WITH HCI PRINCIPLES WILL BE AN ASSET. PROGRAMMING ABILITY IS EXPECTED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 690D DEEP LEARNING FOR NLP Mohit Iyyer, Brendan O'Connor		CMPSCI GRADUATE 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/overrides.
COMPSCI 690OP OPTIMIZATION IN CS Arya Mazumdar		CMPSCI GRADUATE STUDENTS ONLY.	SOME LEVEL OF MATHEMATICAL MATURITY, SUCH AS EXPOSURE TO UNDERGRADUATE LEVEL CALCULUS AND LINEAR ALGEBRA, IS DESIRABLE. STUDENTS ARE EXPECTED TO BE FAMILIAR WITH A HIGH-LEVEL PROGRAMMING LANGUAGE. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 690W ADV WRLSS NTWK AND SNSNG IN IOT Jie Xiong		CMPSCI GRADUATE STUDENTS ONLY.	CMPSCI GRADUATE STUDENTS ARE EXPECTED TO HAVE AN UNDERGRADUATE PREPARATION EQUIVALENT TO COMPSCI 230, 240, AND EITHER COMPSCI 328, 390N, OR 453. 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 691M *S- ADVERSARIAL ML* *Brian Levine, David Jensen*		CMPSCI GRADUATE STUDENTS ONLY.	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 691PL S-ADV PGMG LANGS *Arjun Guha*		CMPSCI GRADUATE STUDENTS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
COMPSCI 692D S- ML AND DATA ANLYS FR NWK SYS *Ramesh Sitaraman, Donald Towsley*		CMPSCI GRADUATES STUDENTS ONLY.	GRADUATE STANDING OR PERMISSION OF INSTRUCTOR. SECTION 01 = 3 CREDITS, SECTION 02 = 1 CREDIT.
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 891M S-THEORY OF COMPUTATION *Arya Mazumdar*		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 H377 HNRS COLLOQ: OPERATING SYSTEMS *Mark Corner*	*COMPSCI 230 WITH A GRADE OF C OR BETTER.*	OPEN TO SENIOR AND JUNIOR, AND SOPHOMORE COMMONWEALTH HONORS COLLEGE CS MAJORS ONLY.	STUDENTS MUST BE ENROLLED IN COMPSCI 377. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
INFO 203 A NETWORKED WORLD *David Wemhoener*		BDIC MAJORS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.
INFO 248 INTRO TO DATA SCIENCE *Gordon Anderson*	COMPSCI 121 AND PSYCH 240 (OR OIM 240, OR STATISTCS 240, OR STATISTCS 515, OR RES-ECON 212, OR SOCIOL 212) BOTH WITH A GRADE OF C OR BETTER.	BDIC 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. THE PROJECT PROVIDES STUDENTS WITH AN OPPORTUNITY TO EXPLORE THE TOPICS IN MORE DEPTH IN A

SPIRE REGISTRATION INFORMATION for 2019 Spring

	PREREQUISITES	ELIGIBILITY RESTRICTIONS	CLASS NOTES/COMMENTS *INFORMATION ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.*
INFO 397G ST-CREATIVE GAME DESIGN&DEV *Joshua Newman*	INFO 101 OR INFO 150 WITH A GRADE OF C OR BETTER.	UNDERGRADUATE NON-CS MAJORS ONLY.	STUDENTS NOT MEETING PREREQUISITES WHO ARE INTERESTED IN THE INFORMATICS PROGRAM (BDIC) OR COMBINING ART WITH COMPUTING, MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cics.umass.edu/overrides.