	CATALOG REQUISITE (PRE-REQ CHECK):	CLASS ASSOCIATED REQ (ELIG RESTRICTIONS):	<u>CLASS NOTES/COMMENTS:</u> INFORMATIONAL ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.
105 Verts CMPTR LTRCY	NONE	NON-CMPSCI MAJORS ONLY.	ATTENDING THE FIRST LECTURE IS MANDATORY. ALL STUDENTS MUST HAVE ACCESS TO A COMPUTER FOR PERFORMING ASSIGNMENTS. COMPUTER MUST RUN WINDOWS 7, WINDOWS 8, 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.cs.umass. edu/overrides.
119 Verts	NONE	NON-CMPSCI MAJORS ONLY.	STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
120 Verts PRBLM SLVNG W/INTRNT	) NONE	NON-CMPSCI MAJORS ONLY.	MANDATORY ATTENDANCE TO FIRST CLASS MEETING IS ESSENTIAL. ALL STUDENTS MUST HAVE ACCESS TO A COMPUTER CONNECTED TO THE INTERNET FOR PERFORMING ASSIGNMENTS. PC RECOMMENDED; MAC ALLOWED FOR MOST, BUT NOT ALL ASSIGNMENTS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
121 Anderson PRBLM SLVNG W/CMPTRS	NONE	UNDERGRADUATE STUDENTS ONLY.	DISCUSSIONS MEET AFTER FIRST LECTURE. IF YOU HAVE QUESTIONS ABOUT 121 COURSE ADMINISTRATION, CONTACT CS121admin@cs.umass. edu. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
187 Miklau PGMG W/DATA STRCTRS	CMPSCI 121 WITH A GRADE OF 'C' OR BETTER.	UNDERGRADUATE CMPSCI MAJORS ONLY.	ATTEND DISCUSSION 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.cs.umass. edu/overrides.
190DM Barrington MATH FOUND-INFORMATICS	NONE	NON-CMPSCI AND NON-MATH UNDERGRADUATE MAJORS ONLY.	R1 MATH USEFUL; NOT ABSOLUTELY REQUIRED. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
190IN Trim	NONE	NON-CMPSCI MAJORS ONLY.	FOUNDATIONS COURSE FOR THE INFORMATICS MAJOR (BDIC). STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
191A Barrington	NONE	CMPSCI RAP MAJORS ONLY.	CMPSCI RAP FIRST YEAR PROGRAM STUDENTS ONLY. REGISTRATION AVAILABLE ONLY DURING SUMMER ORIENTATION.
197B Anderson ST-ADV ASSIGN FOR 121	NONE	UNDERGRADUATES ONLY.	MUST BE ENROLLED IN CMPSCI 121 CONCURRENTLY. STUDENTS NEEDING PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
197C Scarrci ST-PGMG IN C	CMPSCI 187 (OR E&C-ENG 242) WITH A GRADE OF 'C' OR BETTER.	CMPSCI MAJORS ONLY.	INSTRUCTOR CONSENT TO ADD BEGINNING 9/18. INSTRUCTOR CONSENT TO DROP OR WITHDRAW THROUGH 9/25 ONLY. COURSE RUNS FOR 6 WEEKS (9/16, 9/23, 9/30, 10/7, 10/14, and 10/21). STUDENTS WHO HAVE TAKEN CMPSCI 230 ARE NOT ELIGIBLE FOR THIS COURSE. CS MINORS AND APPLICANTS-ON-CONTRACT NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.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.
197U Guo ST-HANDS-ON INTRO UNIX	NONE	CMPSCI MAJORS ONLY.	INSTRUCTOR CONSENT TO ADD BEGINNING 9/18. INSTRUCTOR CONSENT TO DROP OR WITHDRAW THROUGH 9/25. COURSE RUNS FOR 6 WEEKS (9/15/15-10/27/15: LECT 01: 9/15, 9/22, 9/29, 10/6, 10/13-NO CLASS, 10/20, 10/27; LECT 02: 9/17, 9/24, 10/1, 10/8, 10/15, 10/22). CS MINORS AND APPLICANTS-ON-CONTRACT NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON- LINE FORM: https://www.cs.umass.edu/overrides.
220 Richards PGMG METHODOLOGY	CMPSCI 187 (OR E&C-ENG 242) WITH A GRADE OF 'C' OR BETTER.	CMPSCI 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.cs.umass.edu/overrides.

	CATALOG REQUISITE (PRE-REQ CHECK):	CLASS ASSOCIATED REQ (ELIG RESTRICTIONS):	<u>CLASS NOTES/COMMENTS:</u> INFORMATIONAL ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.
230 Moss CMPTR SYS PRINC	CMPSCI 187 (OR E&C-ENG 242) WITH GRADE OF 'C' OR BETTER.	CMPSCI 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.cs.umass.edu/overrides.
240 Marlin RSNG UNDER UNCERTAINTY	CMPSCI 187 (OR E&C-ENG 242) AND MATH 132 WITH A GRADE OF 'C' OR BETTER.	CMPSCI 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.cs. umass.edu/overrides.
250 Barrington	MATH 132 AND CMPSCI 187 (OR E&C-ENG 242) WITH GRADE OF 'C' OR BETTER.	CMPSCI, MATH, AND CSENG MAJORS ONLY.	STUDENTS WHO HAVE COMPLETED CMPSCI 187 OR EQUIVALENT WITH A GRADE OF 'C' OR BETTER AND HAVE A CO-REQUISITE OF MATH 132 MAY REQUEST OVERRIDE (IF SEATS AVAILABLE). 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.cs.umass. edu/overrides.
305 Trim SOC ISS IN CMPTNG	ENGLWRIT 112 WITH GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CMPSCI MAJORS ONLY.	SATISFIES JUNIOR YEAR WRITING REQUIREMENT. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
311 STAFF INTRD TO ALGRTHMS	CMPSCI 250 (OR MATH 455) WITH GRADE OF 'C' OR BETTER.	CMPSCI 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.cs.umass. edu/overrides.
320 Anderson INTRD TO SFTWR ENGG	CMPSCI 220 WITH GRADE OF 'C' OR BETTER.	SOPHOMORE, JUNIOR AND SENIOR CMPSCI MAJORS ONLY.	SATISFIES INTEGRATIVE EXPERIENCE REQUIREMENT FOR CMPSCI MAJORS. CSENG MAJORS WILL BE ADMITTED ONLY IF SPACE ALLOWS. MEETS WITH CMPSCI 529. AN OPTIONAL HONORS COLLOQUIUM MAY BE 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.cs.umass.edu/overrides.
325 Hudlicka USABILITY	NONE	NONE	25 SEATS RESERVED FOR CS MAJORS. INFORMATICS (BDIC) MAJORS SHOULD REQUEST AN OVERRIDE. IN ADDITION TO REQUESTING AN OVERRIDE, FIVE COLLEGE STUDENTS WISHING TO ENROLL MUST FIRST SUBMIT A BRIEF STATEMENT OF INTEREST TO THE INSTRUCTOR, AND A BRIEF LETTER OF RECOMMENDATION FROM THEIR ADVISOR. THIS LETTER MUST INCLUDE THE STUDENT'S CURRENT GPA. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON- LINE FORM: https://www.cs.umass.edu/overrides.
326 Richards WEB PGMG	CMPSCI 220 (OR CMPSCI 230) WITH A GRADE OF 'C' OR BETTER.	SOPHOMORE, JUNIOR AND SENIOR CMPSCI MAJORS ONLY.	SATISFIES INTEGRATIVE EXPERIENCE REQUIREMENT FOR CMPSCI MAJORS. 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.cs. umass.edu/overrides.
345 Meliou PRACT & APPLICS OF DATA MGMT	CMPSCI 187 (OR E&C-ENG 242) WITH A GRADE OF 'C' OR BETTER.	NONE	20 SEATS ARE RESERVED FOR JUNIORS, SOPHOMORES, AND FRESHMEN. STUDENTS ARE EXPECTED TO HAVE BASIC PROGRAMMING SKILLS, AND BE ABLE TO OCCASIONALLY USE LAPTOPS IN CLASS. STUDENTS WHO HAVE TAKEN CMPSCI 445 ARE NOT ELIGIBLE. STUDENTS NEEDING SPECIAL PERMISSION (INSTRUCTOR PERMISSION IF NOT MEETING PREREQUISITE) MUST REQUEST OVERRIDES (FOR AVAILABLE SEATS) VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides. COURSE NUMBER CHANGED FROM 390DB TO 345.
377 Shenoy OPRTNG SYSS	CMPSCI 230 WITH A GRADE OF 'C' OR BETTER.	CMPSCI 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.cs.umass.edu/overrides.
383 Siegelmann ARTFCL INTLLGNC	CMPSCI 220 (OR CMPSCI 230) AND CMPSCI 240, BOTH WITH GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CMPSCI 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.cs.umass. edu/overrides.

CALLOG RECOUNT (FREERED (CL))         CLARGE ASSOCIATED RECIPICUS         CLARGE ASSOCIATED RECIPICUS         COMPACTORNEG, APPL CATALOG CONTROL, ADD (FREES) (FREES	SPIRE REGISTRATION INFO	RMATION for Fall 2015		CLASS NOTES/COMMENTS:
Line         Line <thline< th="">         Line         Line         <thl< th=""><th></th><th>CATALOG REQUISITE (PRE-REQ CHECK):</th><th>CLASS ASSOCIATED REQ (ELIG RESTRICTIONS):</th><th>INFORMATIONAL ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.</th></thl<></thline<>		CATALOG REQUISITE (PRE-REQ CHECK):	CLASS ASSOCIATED REQ (ELIG RESTRICTIONS):	INFORMATIONAL ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.
Number         Construction	Carlocari		CMPSCI MAJORS ONLY.	MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.
Internet         Company         <			JUNIOR AND SENIOR CMPSCI MAJORS ONLY.	ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.
433         STAFF         GMPSCI 2010 CA CARPECI 2/1 / WTH A GRADE OF C OR         CAMPSCI MAORS ON Y.         PETCENT NUM () AF AND CARPECI DUP IN G           443         STAFF         GMPSCI 2017 WTH ORADE OF C' OR BETTER.         JUNICH AND SENCE CAMPSCI MAORS ON Y.         PETCENT NUM () AF AND CARPECI DUP IN G           440         HOURS IST WTH ORADE OF C' OR BETTER.         JUNICH AND SENCE CAMPSCI MAORS ON Y.         DRESCI CAMPSCI MAORS ON Y.         DRESCI CAMPSCI MAORS ON Y.           441         Ward         GMPSCI 377 WTH ORADE OF C' OR BETTER.         JUNICH AND SENCE CAMPSCI MAORS ON Y.         PERSON MADURE 2010 FOR CAMPSCI MAORS ON Y.           444         Ward         GMPSCI 2010 (OR CARPSCI 201) AND MIT 288 ALL WTH         CAMPSCI MAORS ON Y.         PERSON MAURITIES ON A HOURS ON MUST RECURST SERIES ON A HOURS ON Y.           4465         NAGE ON YOUR CARL OF COMPETER GAMAORS ON Y.         PERSON MAURITIES ON A HOURS ON MUST RECURST SERIES ON A HOURS ON Y.           4475         Recursts         GMPSCI 2010 (OR CARPSCI 2010 AND CAPPSCI 2020 AND CAPPSCI 2020 AND CAPPSCI 2020 AND CAPPSCI 2020 AND Y.         ENDOLTER GAMAORS ON Y.           4475         Recursts         GMPSCI 2010 (OR CARPSCI 2020 AND CAPPSCI 2020 AND CAPPSCI 2020 AND CAPPSCI 2020 AND Y.         ENDOLTER GAMAORS ON Y.           513         MITTER OR BETTER.         CAMPSCI MAORS ON Y.         ENDOLTER GAMAORS ON Y.         ENDOLTER GAMAORS ON Y.           514         MITTER OR BETTER		CMPSCI 326 WITH A GRADE OF C OR BETTER.	UNDERGRADUATE STUDENTS ONLY.	NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-
Care Print Nuks         ENTER         PROGRAMMONE DEPENDENCE, CAREGO CARLON TE STUDENTS, OR PRINCE           440         Houmsser         CARPTA NUKS         PROGRAMMONE DEPENDENCE, CAREGO CARLON TE STUDENTS, OR PRINCE           440         Houmsser         CARPTA NUMS, CONTY         CARPTA NUMS, CONTY         CARPTA NUMS, CONTY           441         Houmsser         CARPTA NUMS, CONTY         CARPTA NUMB, CONTY         CARPTA NUMB, CONTY           444         Marco NUMB, CONTY         CARPTA NUMB, CONTY         CARPTA NUMB, CONTY         CARPTA NUMB, CONTY           444         Marco NUMB, CONTY         CARPTA NUMB, CONTY         CARPTA NUMB, CONTY         CARPTA NUMB, CONTY         PROGRAMMONE DEPENDENCE, CARPTA NUMB, CONTY           4446         Marco NUMB, CONTY         CARPTA NUMB, CONTY         CARPTA NUMB, CONTY         PROGRAMMONE DEPENDENCE, CARPTA NUMB, CONTY           4446         Marco NUMB, CONTY         CARPTA NUMB, CONTY         CARPTA NUMB, CONTY         PROGRAMMONE DEPENDENCE, CARPTA NUMB, CONTY           4446         Marco NUMB, CONTY         CARPTA NUMB, CONTY         CARPTA NUMB, CONTY         PROGRAMMONE DEPENDENCE, CARPTA NUMB, CONTY           4446         Marco NUMB, CONTY         CARPTA NUMB, CONTY NUMB, CONTY NUMB, CARPTA NUMB, CONTY NUMB, CARPTA NUMB, CONTY NUMB, CARPTA NUMB, CONTY NUMB		/		
The manufacture         Previous Provided State			CMPSCI MAJORS ONLY.	PROGRAMMING EXPERIENCE, CMPSCI GRADUATE STUDENTS, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES
MAGE SWITHERSIG       A GRADE OF CC OR BETTER       THE STUDENT SHOULD INVERTMENT CAPPECIADOGS (DR CMPSOL 247), CMPSOL 360, CMPSOL 247, CMPSOL 360, CMPSOL 347, CMPSOL 360, CMPSOL 347, C		CMPSCI 377 WITH GRADE OF 'C' OR BETTER.	JUNIOR AND SENIOR CMPSCI MAJORS ONLY.	PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https:
Mith B OR BETTER.       INTH B OR BETTER.       INTH B OR BETTER.       INTH B OR BETTER.         14975       Richards       CMPSCI 200 (DR ClapSCI 220) AND CMPSCI 220, AND CMPSCI 230,			CMPSCI MAJORS ONLY.	THE STUDENT SHOULD HAVE TAKEN CMPSCI 390CG (OR CMPSCI 473, CMPSCI 591B, OR EQUIVALENT). MATH (BASIC CALCULUS, LINEAR ALGEBRA) AND JAVA PROGRAMMING SKILLS REQUIRED. CS MINORS, APPLICANTS-ON-CONTRACT, AND OTHERS NOT MEETING ELIGIBILITY, OR STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES
WITH 'E' OR BETTER.       OVERRIDES VIA THE ON-LINE FORM: https://www.cs.unass.edu/overrides.         ST-SCALABLE WEB SYSTEMS       OVERRIDES VIA THE ON-LINE FORM: https://www.cs.unass.edu/overrides.         903       Grupen       UNDERGRADUATES: CMPSCI 383 (OR MALENG 313; EAC-ENG 314; EAC 11: UNDERGRADUATES ONLY.       ATTEND FIRST CLASS MEETING, INSTRUCTOR WILL COMBINE STUDENTS ONLY.         513       UNDERGRADUATES: CMPSCI 200 AND CMPSCI 311 WITH       Led 10: UNDERGRADUATES TUDENTS ONLY.       MEETS WITH CAM-ENG 000, LECT 01-LUG; LECT 02-GRADS, STUDENTS ONLY.         521       Buru       WINCENGRADUATES: CMPSCI 320 WITH GRADE OF C'OR       Led 11: SENOR, JUNIOR CMPSCI MAUGRS ONLY.       MEETS WITH CAM-ENG 014, EAC 00-EARDS, SEAST HELD PERMISSION MUST REQUEST OVERINDES VIA THE ON-LINE FORM: https://www.cs.unass.edu/overrides.         529       Anderson       CMPSCI 320 WITH A GRADE OF 'A' OR BETTER.       NONE       MEETS WITH COMPSCI 320, STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERINDES VIA THE ON-LINE FORM: https://www.cs.unass.edu/overrides.         500       GMPSCI 320 WITH A GRADE OF C	i i i i i i i i i i i i i i i i i i i		CMPSCI MAJORS ONLY.	INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE
B03         Grupen         UNDERGRADUATES: CMPSCI 383 (OR MAI-ENG 310; MAI- ENG 313; MAI-ENG 379; EAC-ENG 323; EAC-ENG 324; EAC-ENG 3			CMPSCI MAJORS ONLY.	
Display       ENG 313; MAILENG 3278; EAC-ENG 313; EAC-ENG 313; EAC-ENG 333; MILENG 3278; EAC-ENG 333; EAC-ENG 327; MILENG 2010; MILENG 301; MILENG 301; MILENG 301; MILENG 301; MILENG 301;		)		
A GRADE OF 'C' OR BETTER.       Lect 02: MS-CMPSC GRADUATE STUDENTS ONLY.       NEEDING SPECIAL PERMISSION MUST REQUEST OVERNIDES VIA THE ON- LINE FORM: https://www.cs.umass.edu/ugrad-udion/courses.         521       Brun SW ENG: ANALYSIS       UNDERGRADUATES: CMPSCI 320 WITH GRADE OF 'C' OR BETTER.       Lect 01: SENIOR, JUNIOR CMPSCI MAJORS ONLY.       MEETS WITH CMPSCI 621. LECT 01-UG; LECT 02-GRADS. 4 SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL Lect 02: MS-CMPSC GRADUATE STUDENTS ONLY.       MEETS WITH CMPSCI 621. LECT 01-UG; LECT 02-GRADS. 4 SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL Lect 02: MS-CMPSC GRADUATE STUDENTS ONLY.         529       Anderson       CMPSCI 320 WITH A GRADE OF 'A' OR BETTER.       NONE       MEETS WITH CMPSCI 220. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE OF HMSSION MUST REQUEST OVERRIDES VIA THE ON-LINE OF INTRO TO NLP         585       O'Connor       UNDERGRADUATES: CMPSCI 220 (OR CMPSCI 230) AWD Lect 01: JUNIOR AND SENIOR CMPSCI MAJORS ONLY.       Lect 01: JUNIOR AND SENIOR CMPSCI MAJORS ONLY.         1MTRD TO NLP       UNDERGRADUATES: CMPSCI 473 (OR CMPSCI 390CG) AND MATH 235, BOTH WITH A GRADE OF C OR BETTER.       Lect 01: CMPSCI MAJORS ONLY.       Lect 01: CMPSCI MAJORS ONLY.         590GC       Kalogerakis DM ODELING & SIMULATION       WIDERGRADUATES: CMPSCI 473 (OR CMPSCI 390CG) AND MATH 235, BOTH WITH A GRADE OF A- OR BETTER.       Lect 01: CMPSCI MAJORS ONLY.       MEETS WITH BROGC. LECT 01-UG; LECT 02-GRADS. FOR GRADUATE STUDENTS NEEDING STUDENT REGISTRATION.         590GC       Kalogerakis DM ODELING &	Crupon	ENG 313; M&I-ENG 397B; E&C-ENG 313; E&C-ENG 323;		WITH COMPLEMENTARY BACKGROUNDS INTO TEAMS. 5 SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https:
State       Detter       Lect 02: MS-CMPSC GRADUATE STUDENTS ONLY.       FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https: //www.cs.umass.edu/overrides.         S29       Anderson       CMPSCI 320 WITH A GRADE OF 'A-' OR BETTER.       NONE       PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https: //www.cs.umass.edu/overrides.         S30       O'Connor       UNDERGRADUATES: CMPSCI 220 (OR CMPSCI 230) AND CMPSCI 240, BOTH WITH A GRADE OF C OR BETTER.       Lect 01: JUNIOR AND SENIOR CMPSCI MAJORS ONLY.       Lect 01: CMPSCI 240, BOTH WITH A GRADE OF C OR BETTER.         INTRD TO NLP       UNDERGRADUATES: CMPSCI 240, BOTH WITH A GRADE OF C OR BETTER.       Lect 01: JUNIOR AND SENIOR CMPSCI MAJORS ONLY.       Lect 01: CMPSCI 240, BOTH WITH A GRADE OF C OR BETTER.         S90GC       Kalogerakis       UNDERGRADUATES: CMPSCI 473 (OR CMPSCI 390CG) AND MATH 235, BOTH WITH A GRADE OF A- OR BETTER.       Lect 01: CMPSCI MAJORS ONLY.       MEETS WITH GROUCL COT 01-UG; LECT 02-GRADS, FOR GRADUATE STUDENTS REDING STUDENT REGISTRATION.         S90GC       Kalogerakis       UNDERGRADUATES: CMPSCI 473 (OR CMPSCI 390CG) AND MATH 235, BOTH WITH A GRADE OF A- OR BETTER.       Lect 01: CMPSCI GRADUATE STUDENTS ONLY.       MEETS WITH GROUCL COT 01-UG; LECT 02-GRADS, FOR GRADUATE STUDENTS REEDING STON WUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.         S10       MODELING & SIMULATION       NONE       CMPSCI GRADUATE STUDENTS ONLY.       MEETS WITH REGISTRATION STUDENTS REEDING SIND MUST REQUEST OVERR		UNDERGRADUATES: CMPSCI 250 AND CMPSCI 311 WITH A GRADE OF 'C' OR BETTER.		NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-
SW ENG PROJ MGMT       PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.         \$85       O'Connor       UNDERGRADUATES: CMPSCI 220 (OR CMPSCI 230) AND CMPSCI 240, BOTH WITH A GRADE OF C OR BETTER.       Lect 01: JUNIOR AND SENIOR CMPSCI MAJORS ONLY.       LECT 01: 402; LECT 02: GRADS. AN ALTERNATE PREREQUISITE OF LINGUISTICS MAJORS; LINGUISTICS STUDENTS WITH PROGRAMMING AND PROBABILITY EXPERIENCE WILL LIKELY BE ADMITTED AND ENCOUNCAGED TO CONTACT INSTRUCTOR.         \$90GC       Kalogerakis 3D MODELING & SIMULATION       UNDERGRADUATES: CMPSCI 473 (OR CMPSCI 390CG) AND MATH 235, BOTH WITH A GRADE OF A- OR BETTER.       Lect 01: CMPSCI MAJORS ONLY.       MEETS WITH 690GC. LECT 01: LCT 02:-GRADS. FOR GRADUATE STUDENTS FOR THE COURSE.         \$90GC       Kalogerakis 3D MODELING & SIMULATION       UNDERGRADUATES: CMPSCI 473 (OR CMPSCI 390CG) AND MATH 235, BOTH WITH A GRADE OF A- OR BETTER.       Lect 01: CMPSCI MAJORS ONLY. Lect 02: MS-CMPSC GRADUATE STUDENTS ONLY.       MEETS WITH 690GC. LECT 01: LCT 02:-GRADS. FOR GRADUATE STUDENTS FOR THE COURSE. ALTHOUGH FAMILIARITY WITH COMPUTER GRAPHICS IS USEFUL. STUDENTS NUEPERIES FOR THE COURSE. ALTHOUGH FAMILIARITY WITH COMPUTER GRAPHICS IS USEFUL. STUDENTS NUEPERIES FOR THE COURSE. ALTHOUGH FAMILIARITY WITH COMPUTER GRAPHICS IS USEFUL. STUDENTS NUEPERIESSION MUST REQUEST OVERRIDES         \$11       Sitaraman ADV ALGRMS       NONE       CMPSCI GRADUATE STUDENTS ONLY.       UNDERGRADUATES WITH PERMISSION OF INSTRUCTOR. 25 SEATS HELD PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.				FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https:
Control       Control         INTRD TO NLP       CMPSCI 240, BOTH WITH A GRADE OF C OR BETTÉR.       Lect 02: MS-CMPSC GRADUATE STUDENTS ONLY.       LINGUIST 492B IS ACCEPTABLE FOR LINGUISTICS MAJORS; LINGUISTICS         INTRD TO NLP       CMPSCI 240, BOTH WITH A GRADE OF C OR BETTÉR.       Lect 02: MS-CMPSC GRADUATE STUDENTS ONLY.       LINGUIST 492B IS ACCEPTABLE FOR LINGUISTICS MAJORS; LINGUISTICS         Students       CMPSCI 240, BOTH WITH A GRADE OF C OR BETTÉR.       Lect 02: MS-CMPSC GRADUATE STUDENTS ONLY.       LINGUIST 492B IS ACCEPTABLE FOR LINGUISTICS MAJORS; LINGUISTICS         Students       CMPSCI 240, BOTH WITH A GRADE OF C OR BETTÉR.       Lect 01: CMPSCI MAJORS ONLY.       Linguist 492B IS ACCEPTABLE FOR LINGUISTICS MAJORS; LINGUISTICS MAJORS; LINGUISTICS MAJORS ONLY.         Students       UNDERGRADUATES: CMPSCI 473 (OR CMPSCI 390CG)       Lect 01: CMPSCI MAJORS ONLY.       MEETS WITH 690GC. LECT 01=UG; LECT 02=GRADS. FOR GRADUATE         MODELING & SIMULATION       UNDERGRADUATES: CMPSCI 473 (OR CMPSCI 390CG)       Lect 01: CMPSCI GRADUATE STUDENTS ONLY.       MEETS WITH 690GC. LECT 01=UG; LECT 02=GRADS. FOR GRADUATE         Students       NONE       CMPSCI GRADUATE STUDENTS ONLY.       MEETS WITH 600GC. LECT 01=UG; LECT 02=GRADS. FOR GRADUATE         Students       NONE       CMPSCI GRADUATE STUDENTS ONLY.       MEETS WITH 600GC. LECT 01=UG; LECT 02=GRADS. FOR GRADUATE         Students       NONE       CMPSCI GRADUATE STUDENTS ONLY.       MEETS WITH 600GC. LECT 01=UG; LECT 02=GRADS.		CMPSCI 320 WITH A GRADE OF 'A-' OR BETTER.	NONE	PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://
AND MATH 235, BOTH WITH A GRADE OF A- OR BETTER. 3D MODELING & SIMULATION AND MATH 235, BOTH WITH A GRADE OF A- OR BETTER. 4ND MATH 235, BOTH WI				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. 10 SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE
FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL ADV ALGRMS				STUDENTS, THERE ARE NO PREREQUISITES FOR THE COURSE, ALTHOUGH FAMILIARITY WITH COMPUTER GRAPHICS IS USEFUL. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES
		NONE	CMPSCI GRADUATE STUDENTS ONLY.	FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL

	CATALOG REQUISITE (PRE-REQ CHECK):	CLASS ASSOCIATED REQ (ELIG RESTRICTIONS):	<u>CLASS NOTES/COMMENTS:</u> INFORMATIONAL ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.
621 Brun ADV S/WENG:ANALYSIS	NONE	CMPSCI GRADUATE STUDENTS ONLY.	MEETS WITH CMPSCI 521. 7 SEATS HELD FOR INCOMING STUDENT REGISTRATION. ECE GRADUATE STUDENTS BY PERMISSION IF AVAILABLE SEATS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass. edu/overrides.
630 Berger SYSTEMS	NONE	CMPSCI GRADUATE STUDENTS ONLY.	CHANGED FROM CMPSCI 691ST TO CMPSCI 630. 15 SEATS HELD FOR INCOMING STUDENT REGISTRATION. SENIOR CMPSCI MAJORS WITH PERMISSION OF INSTRUCTOR; BACKGROUND IN UNDERGRAD OS IS HELPFUL. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
653 Towsley CMPTR NTWKING	NONE	CMPSCI GRADUATE STUDENTS ONLY.	15 SEATS HELD FOR INCOMING STUDENT REGISTRATION. ECE GRADUATE STUDENTS IF AVAILABLE SEATS. CMPSCI AND CSENG MAJORS MEETING PREREQUISITE OF CMPSCI 453 AND CMPSCI 311 WITH A 'C' OR BETTER, OR STUDENTS NEEDING INSTRUCTOR PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs. umass.edu/overrides.
683 Zilberstein ARTFCL INTLLGNC	NONE	CMPSCI GRADUATE STUDENTS ONLY.	STUDENTS WHO HAVE TAKEN AN UNDERGRADUATE AI COURSE PREFERRED. 25 SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
689 Mahadevan MACH LRNG	NONE	CMPSCI GRADUATE STUDENTS ONLY.	PERMISSION OF INSTRUCTOR FOR CMPSCI MAJORS MEETING THE PREREQUISITE OF MATH 132 AND MATH 235, AND EITHER STATISTCS 515 OR 607 OR 608. 25 SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
690GC Kalogerakis 3D MODELING & SIMULATION	NONE	CMPSCI GRADUATE STUDENTS ONLY.	MEETS WITH 590GC. FOR GRADUATE STUDENTS, THERE ARE NO PREREQUISITES FOR THE COURSE, ALTHOUGH FAMILIARITY WITH COMPUTER GRAPHICS IS USEFUL. 5 SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs. umass.edu/overrides.
690LG Immerman ADV LOGIC IN CMPSCI	NONE	CMPSCI GRADUATE STUDENTS ONLY.	MEETS WITH CMPSCI 513. STUDENTS TAKING THIS COURSE SHOULD HAVE UNDERGRADUATE PREPARATION IN DISCRETE MATH AND ALGORITHMS. 6 SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
6910 Woolf S-TOOLS-EXPL&TUTR SY	NONE	GRADUATE STUDENTS ONLY.	4 SEATS ARE RESERVED FOR MA EDUC MAJORS. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
697L Mahadevan S-DEEP LEARNING	NONE	GRADUATE STUDENTS IN CMPSC, ENGIN, AND NATSCI.	PREREQUISITES: BASIC FAMILIARITY WITH AI/COGNITIVE SCIENCE/MACHINE LEARNING. BASIC KNOWLEDGE OF GRADIENT-BASED OPTIMIZATION. CALCULUS, LINEAR ALGEBRA, ALGORITHMIC ANALYSIS, PROBABILITY/STATISTICS, PROGRAMMING IN PYTHON OR EQUIVALENT HIGH LEVEL LANGUAGE. 10 SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass. edu/overrides.
701 STAFF	NONE	CMPSCI DOCTORAL, MASTERS STUDENTS ONLY.	REQUEST OVERRIDE VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.
745 Diao ADV TPCS IN DB SYSS	NONE	NONE	THE PREREQUISITE IS A GRADUATE COURSE ON THE PRINCIPLES AND IMPLEMENTATIONS OF TRADITIONAL DATABASE SYSTEMS, AN EQUIVALENT OF CMPSCI 645. 8 SEATS HELD FOR INCOMING STUDENT REGISTRATION. STUDENTS WITH OTHER BACKGROUNDS ARE ASKED TO CONTACT THE INSTRUCTOR FOR APPROVAL FOR ENROLLMENT, BUT MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs. umass.edu/overrides.
891M Immerman THRY OF CMPTN	NONE	DOCTORAL, MASTERS 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.cs.umass. edu/overrides.
899 STAFF PH D DISSERTATION	NONE	NONE	COURSE OPEN ONLY TO CS GRADUATE STUDENTS WHO HAVE PASSED PORTFOLIO. REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www. cs.umass.edu/overrides.

Osterweil

#### CATALOG REQUISITE (PRE-REQ CHECK):

H320

HONORS COLLOQ - 320

NONE

#### CLASS ASSOCIATED REQ (ELIG RESTRICTIONS):

OPEN TO SENIOR, JUNIOR, AND SOPHOMORE COMMONWEALTH HONORS COLLEGE STUDENTS ONLY.

#### <u>CLASS NOTES/COMMENTS:</u> INFORMATIONAL ONLY - DOES NOT AFFECT SPIRE ENROLLMENT.

STUDENTS MUST BE ENROLLED IN CMPSCI 320. STUDENTS NEEDING SPECIAL PERMISSION MUST REQUEST OVERRIDES VIA THE ON-LINE FORM: https://www.cs.umass.edu/overrides.