

**Pre-Requisite Courses and Concurrent Pre-Requisite Courses  
for College of Engineering and Computer Science Undergraduate Courses**

CIS courses (pages 1 and 2)      ENGR courses (page 2)      ECE courses (pages 3 and 4)  
IMSE courses (page 5)      ME courses (page 6)

[as of April 2009]

**Computer and Information Science Courses**

<b>Hrs</b>	<b>Course</b>	<b>Pre-Requisite Courses</b>	<b>At Least Concurrently</b>
4	CIS 150	-----	MATH 115
4	CIS 200	CIS 150 and MATH 115	CIS 275
4	CIS 275	MATH 115	CIS 200
3	CIS 285	CIS 200 and CIS 275	-----
3	CIS 294	CIS 200	-----
3	CIS 296	CIS 200	-----
3	CIS 297	CIS 200	-----
4	CIS 306	CIS 275	-----
4	CIS 310	MATH 115, CIS 200, CIS 275	-----
4	CIS 350	MATH 115, CIS 200, CIS 275	-----
4	CIS 3501	MATH 115, CIS 200, CIS 275	CIS 285
4	CIS 375	COMP 270 and <i>either a) CIS/IMSE 350 or CIS 3501 or b) both ECE 370 and ECE/MATH 276</i>	-----
4	CIS 376	CIS 375	-----
3	CIS 381 = IMSE 381	MATH 115, knowledge of programming, and Junior standing	-----
3	CIS 390	CIS 175 and CIS 200	-----
1-3	CIS 391	CIS 350	-----
4	CIS 400	<i>either a) CIS 350 or CIS 3501 or IMSE 350 or b) both ECE 370 and ECE/MATH 276</i>	-----
3	CIS 405	CIS 350	-----
4	CIS 421	<i>either a) CIS 350 or CIS 3501 or IMSE 351 or b) both ECE 370 and ECE/MATH 276</i>	-----
3	CIS 423	CIS 421	-----
4	CIS 4261	CIS 375	CIS 421
4	CIS 4262	CIS 4261	-----

Hrs	Course	Pre-Requisite Courses	At Least Concurrently
4	CIS 427	IMSE 317 and <i>either</i> a) CIS 350 or CIS 3501 or IMSE 351 <i>or</i> b) both ECE 370 and ECE/MATH 276	-----
3	CIS 428	CIS 427	-----
3	CIS 435	-----	CIS 375 or CIS 553
3	CIS 437	CIS 427	-----
3	CIS 447	CIS 427 and CIS 450	-----
4	CIS 450	IMSE 317 and <i>either</i> a) both CIS 310 and (CIS 350 or CIS 3501 or IMSE 351) <i>or</i> b) ECE 370 and ECE/MATH 276	-----
3	CIS 451	MATH 217/227, and <i>either</i> a) CIS 350 <i>or</i> b) both ECE 370 and ECE/MATH 276	-----
3	CIS 452	CIS 451	-----
3	CIS 456	CIS 350	-----
3	CIS 474	<i>Either</i> CIS 350, or CIS 3501, or IMSE 350 <i>or</i> both ECE 370 and ECE/MATH 276	-----
3	CIS 475	CIS 376	-----
3	CIS 476	CIS 375	-----
3	CIS 479	<i>Either</i> a) CIS 350 or CIS 3501 or IMSE 350 <i>or</i> b) both ECE 370 and ECE/MATH 276	-----
3	CIS 487	-----	CIS 375
3	CIS 488	CIS 487	-----
4	CIS 495	CIS 375 and Senior standing	-----
2	CIS 4951	CIS 375	-----
2	CIS 4952	CIS 4951	-----
4	CIS 496	CIS 376 and CIS 476	-----
2	CIS 4961	CIS 376	-----
2	CIS 4962	CIS 4961	CIS 476
<b><u>ENGR Courses</u></b>			
2	ENGR 100	-----	-----
2	ENGR 126	-----	-----
2	ENGR 216	ENGR 100	ENGR 126, MATH 216, and MATH 217 or 227
3	ENGR 250	CHEM 144	MATH 115 & CHEM 146
4	ENGR 350	CHEM 144, PHYS 151, junior status	-----
3	ENGR 400	Senior standing	-----

## Electrical and Computer Engineering Courses

Hrs	Course	Pre-Requisite Courses	At Least Concurrently
4	ECE 210	MATH 116	PHYS 151
4	ECE 270	ENGR 100	-----
4	ECE 273	ENGR 100	-----
4	ECE 276 = Math 276	MATH 116	ECE 273
4	ECE 305	PHYSICS 151 and MATH 205	MATH 217 or 227
4	ECE 311	ECE 210 and CHEM 144	COMP 270
3	ECE 314	ECE 311 and ECE 317	-----
4	ECE 317	MATH 216 and either MATH 217 or 227	ECE 311
4	ECE 319	ECE 311	-----
3	ECE 321	-----	ECE 311
4	ECE 370	ECE 270	ECE 273
4	ECE 372	COMP 270 and <i>either</i> both ECE 270 and ECE 273 <i>or</i> CIS 310 alone	-----
4	ECE 375	ECE 270 and ECE 273	ECE/MATH 276 and ECE 372
3	ECE 385	-----	ECE 311
3	ECE 3801 [not for credit for EE majors]	ECE 210 and MATH 216	-----
3	ECE 411	ECE 301 and ECE 311	-----
3	ECE 413	ECE 273 and ECE 311	-----
4	ECE 414	-----	ECE 311 and ECE 317
4	ECE 415	ECE 385 and ECE 317	-----
4	ECE 433	ECE 311 and ECE 370	-----
4	ECE 434	ECE 370	-----
4	ECE 446	-----	ECE 311 and ECE 317
4	ECE 450	ECE 317 and IMSE 317	-----
3	ECE 454	ECE 450 or ECE 471	-----
4	ECE 460	ECE 317	-----

<b>Hrs</b>	<b>Course</b>	<b>Pre-Requisite Courses</b>	<b>At Least Concurrently</b>
4	ECE 464	ME 265 and either ECE 300 or ECE 365, and knowledge of computer programming	-----
4	ECE 465	-----	ECE 460
4	ECE 471	ECE 372 and IMSE 317	-----
4	ECE 473	ECE 372	-----
3	ECE 474	ECE 370	-----
4	ECE 475	ECE 375	-----
3	ECE 476	ECE 375	-----
4	ECE 478	ECE 370 and IMSE 317	-----
3	ECE 479	ECE 370	-----
4	ECE 480	ECE 317	-----
4	ECE 488	ECE 270 and senior standing	-----
3	ECE 4951	ECE 311 and ECE 372	-----
2	ECE 4981	COMP 270, ECE 317, ECE 372, senior standing and one from the following: ECE 414, 415, 450, 460, 480, or 4951	-----
2	ECE 4982	COMP 270, ECE 317, ECE 372, ECE 375, senior standing, and one from the following: ECE 471, 473, 475, or 478	-----
2	ECE 4983	ECE 4981	-----
2	ECE 4984	ECE 4982	-----
3	ECE 4985	COMP 270, ECE 317, ECE 372, senior standing, and one from the following: ECE 414, 415, 450, 460, 480, or 4951	-----
3	ECE 4986	COMP 270, ECE 317, ECE 372, ECE 375, senior standing, and one from the following: ECE 471, 473, 475, or 478	-----

## Industrial and Manufacturing Systems Engineering Courses

Hrs	Course	Pre-Requisite Courses	At Least Concurrently
3	IMSE 255	ENGR 100	-----
4	IMSE 3005	MATH 217 or MATH 227	IMSE 317
3	IMSE 317	MATH 116	-----
3	IMSE 351	IMSE 255 or CIS 205	-----
3	IMSE 381 = CIS 381	MATH 115, knowledge of programming, and Junior standing	-----
4	IMSE 382	ENGR 250 and ME 265	-----
3	IMSE 421	Junior Status & Knowledge of Prob & Stats	-----
4	IMSE 4425	IMSE 317	-----
4	IMSE 453	IMSE 317 and <i>either</i> a) CIS 350 or CIS 3501 or IMSE 351 <i>or</i> b) both ECE 370 and ECE/MATH 276	-----
4	IMSE 4545	IMSE 255	-----
4	IMSE 456	<i>Either</i> a) CIS 350, or CIS 350A, or IMSE 351 <i>or</i> b) both ECE 370 and ECE/MATH 276	-----
4	IMSE 4585	IMSE 317 and IMSE 3005	-----
4	IMSE 4675	IMSE 317	-----
4	IMSE 4745	IMSE 317, IMSE 421, COMP 270, and IMSE 3005 or IMSE 300	-----
4	IMSE 4795	COMP 270 and IMSE 3005	-----
4	IMSE 4815	IMSE 382, COMP 270	IMSE 4675
4	IMSE 4825	ECE 305 and either ME 265 or ME 260	-----
4	IMSE 4835	IMSE 382	-----
3	IMSE 486	IMSE 382	-----
3	IMSE 488	IMSE 382	-----
2	IMSE 4951	-----	ENGR 400
2	IMSE 4952	IMSE 4951	-----

## Mechanical Engineering Courses

Hrs	Course	Pre-Requisite Courses	At Least Concurrently
4	ME 230	MATH 116, PHYS 150, and CHEM 144	-----
4	ME 260	PHYSICS 150	ENGR 250 or ECE 385, and MATH 205 or MATH 215
4	ME 325	ME 230 and ENGR 216	ME 345
4	ME 345	ME 260 and ENGR 216	-----
3	ME 349	ECE 305 and either ME 345 or ME 265	-----
4	ME 3601	ME 260 and ENGR 216	-----
3	ME 364	ENGR 216, ME 260, and MATH 217 or 227	-----
4	ME 375	ME 325	ECE 305
3	ME 379	ME 325, ME 349, and COMP 270	ME 375
4	ME 381	ENGR 250, ME 230, and ME 260	-----
4	ME 4101	ME 345 and ME 3601	ME 375
4	ME 4191	ME 345 and ME 3601	-----
4	ME 4201	ME 325	-----
4	ME 430	ME 375	-----
3	ME 4301	ME 325	ME 375
4	ME 4361	ME 325	ME 375
4	ME 442	ECE 305 and ME 345	-----
4	ME 4461	ME 345	ME 349
4	ME 4471	ME 325 and senior standing	ME 375
4	ME 452	ME 325	ME 375
3	ME 460	ME 3601 and ME 381	-----
4	ME 4671	ME 345, ME 3601, and ME 375	ME 379
1-4	ME 469	ME 4671, permission of ME chair and instructor	-----
3	ME 481	ME 381	-----
3	ME 483	ME 3601	-----
3	ME 484	ME 381 or IMSE 382	-----
3	ME 496	ME 325	-----
4	ME 4981	ME 345 and ME 3601	-----