

# ENGINEERING TRANSFER

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## MAJOR REQUIREMENTS 2008 - 2009

- 1. Chemical Engineering Majors must take Chemical Principles 160:115-116 as a freshman ;Organic Chemistry 160:335-335 during their sophomore year.
- 2. Electrical and Computer Engineering Majors must take Electric Circuits II 750:234 and the lab 750:236 during the second term of their sophomore year. Chemical Principles II 160:116, 126 not required for this major; additional required courses are Introduction to Statistics 960:283 and Object Oriented Programming 198:113, 114.
- 3. Due to unavailability of some key second year courses, some majors may require three years in New Brunswick. Civil, Electrical and Mechanical Engineering may be completed in two years, although some summer courses are recommended. All others (Bioenvironmental, Chemical, Materials Science & Engineering, and Industrial) will require three years. Contact Dean Fred Bernath (bernath@rci.rutgers.edu) for advising.

<u>COURSES REQUIRED</u>	<u>MINIMUM CREDITS</u>	<u>COURSES COMPLETED</u> <u>Subj.#: Course #</u>	<u>COMPLETED CREDITS SEM/YR</u>	<u>SENIOR REVIEW</u>
<b><u>FIRST YEAR</u></b>				
<b><u>First Term</u></b>				
ENGLISH COMPOSITION I	3	350:101	_____	_____
UNIFIED CALCULUS I	4	640:121	_____	_____
ELEMENTS OF PHYSICS I	3	750:131	_____	_____
ELEMENTS OF PHYSICS LAB I	1	750:133	_____	_____
CHEMICAL PRINCIPLES ( <u>ONLY</u> Chemical Engineering Majors must take in first year: see note 1 above)	3	160:115	_____	_____
CHEMICAL PRINCIPLES LAB I ( <u>ONLY</u> Chemical Engineering Majors must take in first year: see note 1 above)	1	160:125	_____	_____
SOCIAL SCIENCE/HUMANITIES ELECTIVE (see reverse)	3	:	_____	_____
<b><u>Second Term</u></b>				
UNIFIED CALCULUS II	4	640:122	_____	_____
ELEMENTS OF PHYSICS II	3	750:132	_____	_____
ELEMENTS OF PHYSICS LAB II	1	750:134	_____	_____
INTRO TO COMPUTING FOR ENGINEERING & SCIENCES or PROGRAMMING FUNDAMENTALS AND LAB 198:111,112 ( <b>ECE MAJORS ONLY</b> )	3	198:105	_____	_____
CHEMICAL PRINCIPLES II ( <u>ONLY</u> Chemical Engineering Majors must take: see note 1 above)	3	160:116	_____	_____
CHEMICAL PRINCIPLES LAB II ( <u>ONLY</u> Chemical Engineering Majors must take: see note 1 above)	1	160:126	_____	_____
SOCIAL SCIENCE/HUMANITIES ELECTIVE(see reverse)	3	:	_____	_____
<b><u>SECOND YEAR</u></b>				
<b><u>First Term</u></b>				
CHEMICAL PRINCIPLES I (For non-Chem.Eng.Majors) <u>OR</u> ORGANIC CHEMISTRY I (For Chemical Engineering Majors, see note 1 above)	3	160:	_____	_____
CHEMICAL PRINCIPLES LAB I <u>OR</u> ORGANIC CHEMISTRY LAB I (see above)	1	160:	_____	_____
UNIFIED CALCULUS III	4	640:221	_____	_____
ELECTRIC CIRCUITS I (Required for bioenvironmental, electrical & computer, industrial, and mechanical. Technical elective for all other majors)	3	750:233	_____	_____
ELECTRIC CIRCUITS LAB I (see 750:233 above)	1	750:235	_____	_____
MECHANICS I: STATICS	3	750:253	_____	_____
<b>SEE NEXT PAGE FOR SECOND TERM</b>				

**Second Term**

CHEMICAL PRINCIPLES II (For non-Chem.Eng.Majors) OR ORGANIC CHEMISTRY II (For Chemical Engineering Majors, see note 1 above) <b>NOT REQUIRED FOR ELECTRICAL &amp; COMPUTER ENGINEERING</b>	3	160:	_____	_____	_____
CHEMICAL PRINCIPLES LAB II OR ORGANIC CHEMISTRY LAB II (see above) <b>NOT REQUIRED FOR ELECTRICAL &amp; COMPUTER ENGINEERING</b>	1	160:	_____	_____	_____
ELEMENTARY DIFFERENTIAL EQUATIONS	3	640:314	_____	_____	_____
ELEMENTS OF MODERN PHYSICS	3	750:232	_____	_____	_____
MECH. OF MATERIALS (NOT req. Elect.,Chem.,MS&E)	3	750:291	_____	_____	_____
ELECTRIC CIRCUITS II AND LAB (Required of Elect. Eng.)	4	750:234,236	_____	_____	_____
INTRODUCTION TO STATISTICS ( <b>ECE MAJORS ONLY</b> )	3	960:283	_____	_____	_____
OBJECT ORIENTED PROGRAM ( <b>ECE MAJORS ONLY</b> )	3,1	198:113, 114	_____	_____	_____
SOCIAL SCIENCE / HUMANITIES COURSE (see below)	3	_____	_____	_____	_____

15 - 18 Credits of Social Science or Humanities Electives are required. These credits include the required 01:220:200. Economics 102, 103 offered in Camden count as 01:220:200 plus 3 general elective credits, or humanities/social science credits. Only 6 credits of the remaining 12-15 may be at 100-200 level.

The following CCAS courses are considered acceptable as humanities/social science electives by the Rutgers College of Engineering. They are not quantitative in nature.

ANTHROPOLOGY (070): All courses

ART HISTORY (082): All courses

ECONOMICS (220): All except Econometrics 220:322

ENGLISH (350, 352): All courses

FRENCH (420): All courses at intermediate and higher level

GERMAN (470): All courses at intermediate and higher level

HISTORY (510, 512, 516): All courses

MUSIC (700): All courses except performance

PHILOSOPHY (730): All courses

POLITICAL SCIENCE (790): All courses

PSYCHOLOGY (830): All courses except Statistics 830:250

RELIGION (840): All courses

RUSSIAN (860): All courses at intermediate and higher level

SOCIOLOGY (920): All courses except Method and Theory 920:301

SPANISH (940): All courses at intermediate and higher level

THEATRE ARTS (965): All courses

URBAN STUDIES (975): All courses

WOMEN'S STUDIES (988): All courses

**ENGINEERING PROGRAMS: Bioenvironmental, Biomedical, Materials Science & Engineering (MS&E), Chemical (Chem or Biochem), Civil, Electrical & Computer (EE or Computer), Industrial, Mechanical (ME, Aerospace or Biomechanical), Applied Science**

See School of Engineering website <http://www.soc.rutgers.edu> for courses required in last 2 or 3 years.