12 credits are required. (13 credits required if you took EE2171)

1. Choose a minimum of 5 credits of approved Math or Science from the following:
   MA course that’s not required. (must not be duplication of topic already taken nor pre-req to course already taken).
   MA1032 will count only if taken before Differential Calculus 1160/1161
   MA1031 – 3 credits, One credit of MA1030, only if taken before Differential Calculus 1160/1161
   MAA – 4 credits maximum
   MA2720 or MA2710 applies only if student took MA3720 and not MA3710
   Any BL course except BL3990
   Any CH course numbered 1100 or above
   Any PH course except PH2230
   The following GE courses: GE2000, GE2050, GE2200, GE2300, GE2310, GE2640, GE2900, GE3100, GE3200, GE3300, GE3320, GE3600, GE3900, GE3920, GE4170, GE4500, GE4640, GE4931, GE4932, GE4933
   One credit of MY 2100

2. Choose remaining approved electives from the above or the following:
   Any EE course (maximum of 4 credits)
   Any Math or Science elective listed above.
   Any BA course except BA1700 and BA2100
   Any CS course except CS1000
   Any EC course
   Any ENG course except ENG3000 and ENG3100
   Any BE, CE, CM except CM3410, GE, MEEM, MG, MY course
   ENT courses
   UN4000 Remote Sensing Seminar, UN4500 Technological Entrepreneurship
   UN3002 Co-op (6 credits maximum).

Recommendations:
CS 1129 Intro to Comp. Sci. II in C++  Recommended for EE. Double majors do not take CS1129.
EC 3400 Economic Decision Analysis
MEEM 2700 Dynamics
MY 2100 Intro to Material Science & Engineering
MEEM2110 Statics*
ENG 2120 Statics and Strength of Materials*
MEEM 2200 Thermodynamics *
MEEM 3210 Fluid Mechanics * (has pre-requisites)
* If you plan to take the Fundamentals of Engineering (FE) Exam during your senior year, these courses would be beneficial.

Photonics Electives:  Select 6 credits from the following with a minimum of 3 credits selected from EE4256, EE4257, and EE4290. (Fall 2006 and later)
EE4252 Digital Signal Processing  Fall
EE4253 Real Time Signal Processing  Spring
EE4256 Fourier Optics  Fall
EE4257 Digital Image Processing  Spring
EE4290 Optical Communication  Spring
MY3700 Electronic, Optical, and Magnetic Properties of Materials  Spring
PH3210 Optics  Fall
PH4510 Introduction to Solid State Physics  Fall