DIRECTED ELECTIVE OPTIONS

Starting with the Class of 2016, all BME students must complete 4 credits of Directe
Electives as part of their undergraduate program. These courses are generally lower-
division (1000- to 2000-level) engineering, math, or science courses or 3000-level
engineering technology courses that support a student’s academic goals. The
Undergraduate Program Committee periodically reviews this list to identify appropriate
courses. If students believe that a course not on the list would meet this objective, they may
propose this to the Undergraduate Program Committee for review at least two months
before the start of the semester in which the student wishes to take the course.

In order to satisfy ABET requirements for the engineering portion of the curriculum, the
combination of 16 credits of Directed Electives and Concentration Electives must include at
least 6 credits of engineering courses. In general, courses offered by the College of
Engineering can be considered to satisfy this requirement.

Approved Directed Electives

BE 2550 (3 cr) – Computer Applications & Numerical Methods
CHM 2225/2230 (4 cr) – Organic Chemistry II for Engineers + Lab
CHE 2800 (4 cr) – Material and Energy Balances
CSC 1050* (2 cr) – Intro to Unix and C++
CSC 1100/1101 (4 cr) – Problem Solving
CSC 2000* (3 cr) – Intro to C++
ECE 2610 (4 cr) – Digital Logic I
EET 2720 (3 cr) – Microprocessor Fundamentals
ME 2050 (2 cr) – Introduction to Computer Aided Mechanical Drafting
MIT 3350 (3 cr) – Applied Human Factors
MIT 3500 (1 cr) – Machine Tool Laboratory

NOTE 1: BME 2010, 2070, 4010, and 5010 are considered to be life science courses for the
purpose of the BME curriculum and are not included in the count of engineering credits.

NOTE 2: Students who satisfy the BE 2100 requirement through AP or IB credit must take 9 credits
of their Directed and Concentration Electives from engineering courses, as the AP/IB credit does not
count as engineering.

NOTE 3: Any course on the Concentration Elective list can also be selected as a Directed Elective
(but not vice versa).

NOTE 4: *Basic programming language courses (e.g. CSC 1050 and CSC 2000) do not count as
engineering credits. Computer science applied to problem solving (e.g. CSC 1100/1101) can be
counted as engineering credits.