

FLOWCHARTS FOR BIOMEDICAL ENGINEERING FOCUS AREA DEGREE PLANNING

The B.S. BME degree has nine (9) electives that may be used in developing program of study to meet individual student career goals. These include two (2) biomedical engineering (BIOM) electives, four (4) engineering electives, two (2) technical electives, and one (1) biology or engineering elective.

The BIOM electives must be selected from the upper division BIOM courses. The engineering electives may be selected from upper division MECH, EECE, or CIVL engineering courses in the HCoE. The technical electives may be selected from upper division courses in BIOL, CHEM, Engineering (including BIOM), MATH, PHYS and Engineering Technology (TECH). The biology-engineering elective must be from upper division courses in BIOL or Engineering (including MECH 22332 – Dynamics). These elective courses should be chosen with permission of your advisor. Students may need to take other courses to satisfy pre-requisite requirements for upper division courses outside of the department.

The following flowcharts provide highly recommended courses in the following focus areas:

- 1] Biomaterials/Tissue Engineering;
- 2] Bioelectrical Devices and Systems;
- 3] Biomechanics;
- 4] BioSensor Devices and Systems.

It is not necessary for students to select a focus area since students can be well served by choosing topics from each focus area or can develop other areas of focus. Not all possible electives have been specified for each focus area. Students should refer to the [Advising Guide](#) and consult with advisor on selection of electives.

Focus areas are not official and students may develop curriculum to overlap/integrate one or more focus areas for their particular career goals.

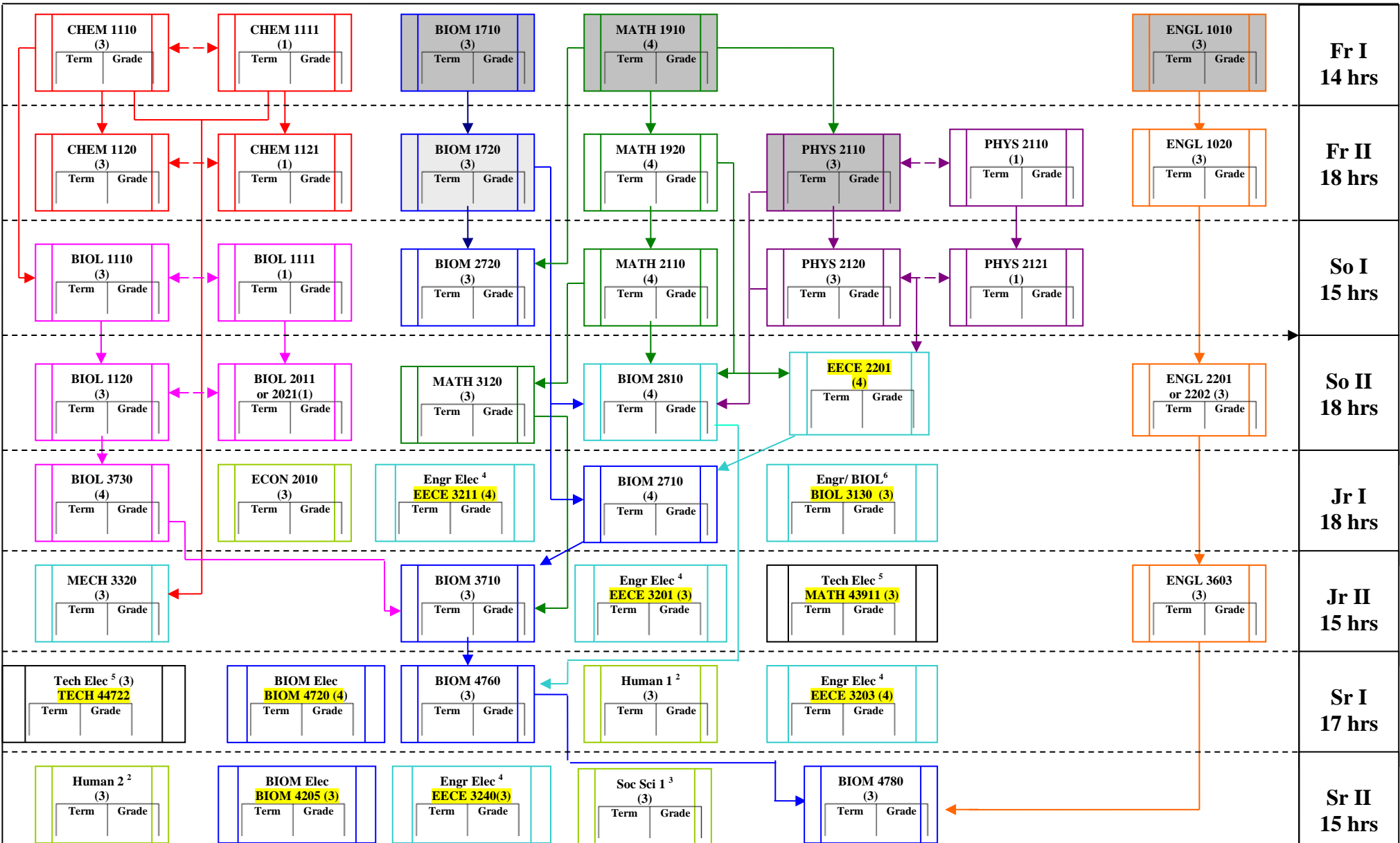
B.S BIOMEDICAL ENGINEERING DEGREE PROGRAM: Bioelectr Device & System Focus (Begin Fall 2011)

Name:

UUID:

Advisor:

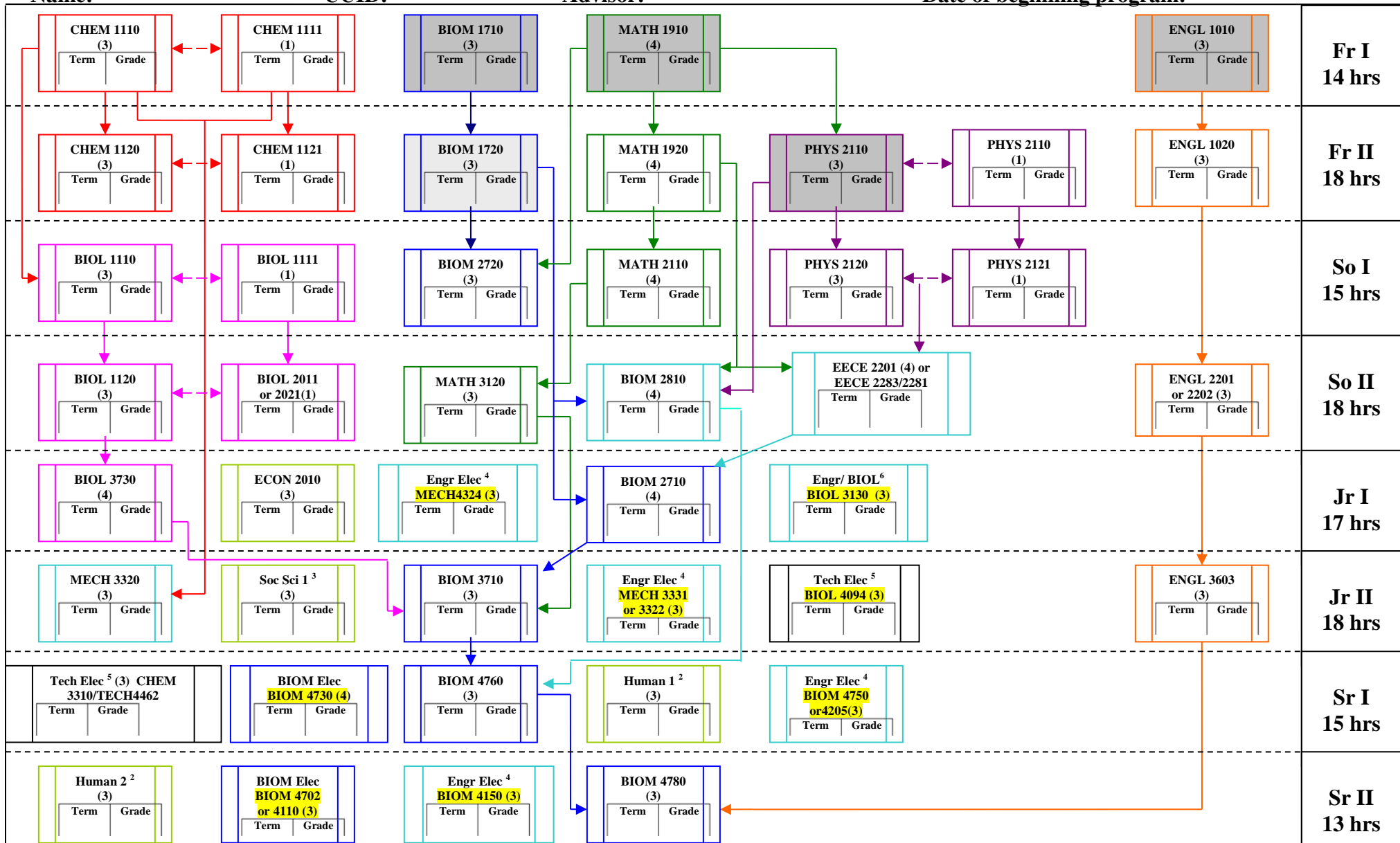
Date of beginning program:



- Total = 130**
1. "C-" or better in all engineering, math, physics, chemistry, and biology courses used toward graduation. **Must complete each highlighted course with "C" or better to be admitted to Biomed Engr**
 2. 6 hours of Humanities from approved list. http://www.engr.memphis.edu/bme/docs/advising_guide.pdf (Under Additional Information for BME and University Curriculum; pg.9)
 3. 3 hours of Social Science from approved list. http://www.engr.memphis.edu/bme/docs/advising_guide.pdf (Under Additional Information for BME and University Curriculum; pg. 10)
 4. Must be an upper division (3XXX/4XXX) Engineering course.
 5. May be an upper division (3XXX/4XXX) Engineering, Science, or Math course.
 6. Upper Division Engr course (3XXX/4XXX, including MECH 2332) or upper division (3XXX/4XXX) Biology Course
- updated March 2015

B.S BIOMEDICAL ENGINEERING DEGREE PROGRAM: Biomaterials/Tissue Engineering Focus (Begin Fall 2011)

Name: _____ UID: _____ Advisor: _____ Date of beginning program: _____



1. "C-" or better in all engineering, math, physics, chemistry, and biology courses used toward graduation. **Must complete each highlighted course with "C" or better to be admitted to Biomed Engr** **Total = 128**
2. 6 hours of Humanities from approved list. http://www.engr.memphis.edu/bme/docs/advising_guide.pdf (Under Additional Information for BME and University Curriculum; pg.9)
3. 3 hours of Social Science from approved list. http://www.engr.memphis.edu/bme/docs/advising_guide.pdf (Under Additional Information for BME and University Curriculum; pg. 10)
4. Must be an upper division (3XXX/4XXX) Engineering course.
5. May be an upper division (3XXX/4XXX) Engineering, Science, or Math course.
6. Upper Division Engr course (3XXX/4XXX, including MECH 2332) or upper division (3XXX/4XXX) Biology Course

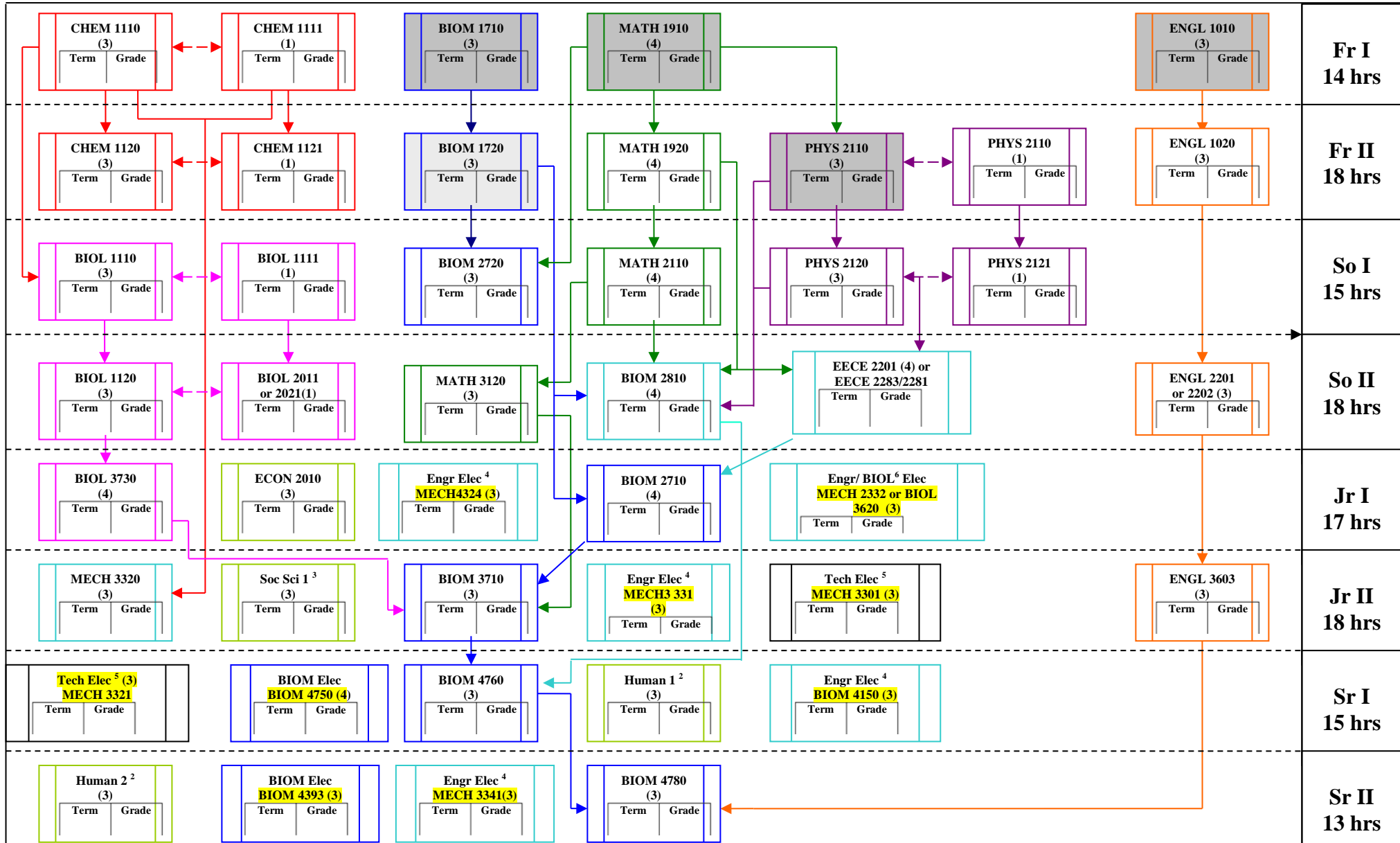
B.S BIOMEDICAL ENGINEERING DEGREE PROGRAM: Biomechanics Focus (Begin Fall 2011)

Name:

UID:

Advisor:

Date of beginning program:



- Total = 128**
1. "C-" or better in all engineering, math, physics, chemistry, and biology courses used toward graduation. **Must complete each highlighted course with "C" or better to be admitted to Biomed Engr**
 2. 6 hours of Humanities from approved list. http://www.engr.memphis.edu/bme/docs/advising_guide.pdf (Under Additional Information for BME and University Curriculum; pg.9)
 3. 3 hours of Social Science from approved list. http://www.engr.memphis.edu/bme/docs/advising_guide.pdf (Under Additional Information for BME and University Curriculum; pg. 10)
 4. Must be an upper division (3XXX/4XXX) Engineering course.
 5. May be an upper division (3XXX/4XXX) Engineering, Science, or Math course.
 6. Upper Division Engr course (3XXX/4XXX, including MECH 2332) or upper division (3XXX/4XXX) Biology Course

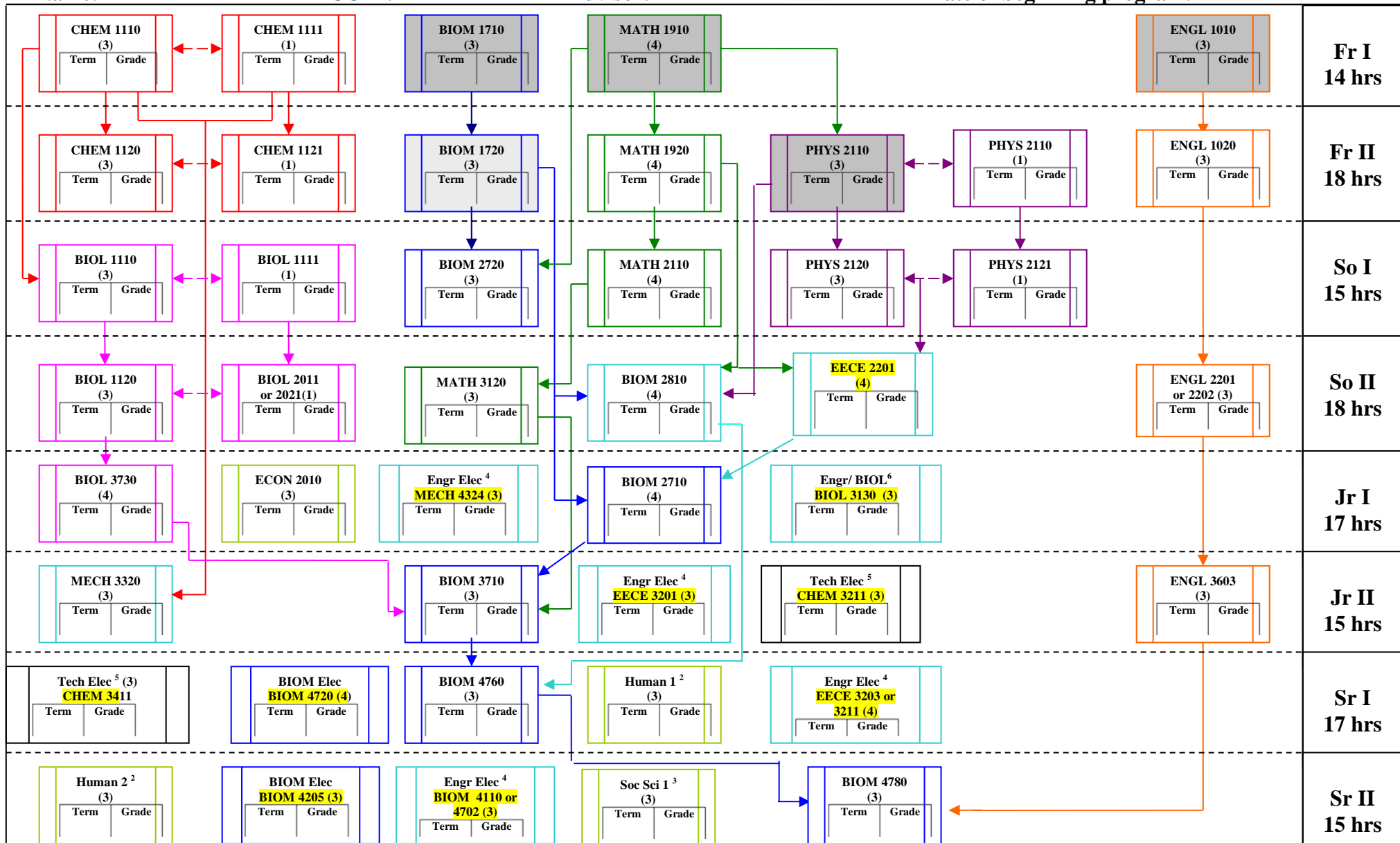
B.S BIOMEDICAL ENGINEERING DEGREE PROGRAM: BioSensors & System Focus (Begin Fall 2011)

Name:

UUID:

Advisor:

Date of beginning program:



1. "C-" or better in all engineering, math, physics, chemistry, and biology courses used toward graduation. **Must complete each highlighted course with "C" or better to be admitted to Biomed Engr** **Total = 129**
2. 6 hours of Humanities *from approved list*. http://www.engr.memphis.edu/bme/docs/advising_guide.pdf (Under Additional Information for BME and University Curriculum; pg.9)
3. 3 hours of Social Science *from approved list*. http://www.engr.memphis.edu/bme/docs/advising_guide.pdf (Under Additional Information for BME and University Curriculum; pg. 10)
4. Must be an upper division (3XXX/4XXX) Engineering course.
5. May be an upper division (3XXX/4XXX) Engineering, Science, or Math course.
6. Upper Division Engr course (3XXX/4XXX, including MECH 2332) or upper division (3XXX/4XXX) Biology Course