

Course 2-A Biology/Medicine track requirements for the Class of 2009 +

IMPORTANT – Take 7.01x Freshman year if you want to do a Bio/Med 2-A track. 7.01x conflicts with some sophomore subjects required by Course 2-A, and most students with an interest in biology take 7.01x as freshmen.

A. Biology Track – emphasizes molecular life sciences and fulfills the BME minor

CORE -Take all of: 2.001, 2.003, 2.005, 2.009, 2.670, 2.671, 18.03 (78 units)

2nd level: 2.002, 2.004, and 2.006 (36 units)

You may petition to have a Course 2 restricted elective replace one of the 2nd level subjects
For example, 2.797J (Molecular, Cell and Tissue Biomechanics) may be taken rather than 2.006

Two Concentration subjects (24 Units):

2.772J Molecular Thermo **12 units**

2.797J Biomechanics **12 units**

Plus three of these 12 unit subjects (36 units):

Take four of these if 2.797J was used as second level

2.183 Biomechanics and Neural Control of Movement

2.673 Biological Instrumentation **limited enrollment**

2.785J Cell_matrix Mechanics

2.79J Biomaterials-Tissue Interactions

2.791J Quantitative Physiology, Cells and Tissues

2.771J Biomedical Information Technology

2.782J Design of Medical Devices

3.052 Nanomechanics

Strongly Recommended*: 5.12 and either 5.07 or 7.05 (24 units)

*required for BME minor completion

B. Medical Engineering Track – emphasizes devices and medical diagnostics

CORE -Take all of: 2.001, 2.003, 2.005, 2.009, 2.670, 2.671, 18.03 (78 units)

2nd level: 2.002, 2.004, and 2.006 (36 units)

You may petition to have a Course 2 restricted elective replace one of the 2nd level subjects
For example, 2.797J (Molecular, Cell and Tissue Biomechanics) may be taken rather than 2.006

Three Concentration subjects

2.007 Design and Manufacturing I
2.183 Biomechanics and Neural Control of Movement
2.72 Elements of Mechanical Design

Plus two of these 12-unit subjects (24 units):

2.092 Computer Methods in Dynamics
2.14 Analysis and Design of Feedback Control Systems
2.797J Biomechanics
2.673 Biological Instrumentation *limited enrollment*
2.792J Quantitative Physiology: Organ Transport Systems
2.793J Fields, Forces and Flows in Biological Systems
2.785J Cell-matrix Mechanics
2.79J Biomaterials-Tissue Interactions
2.791J Quantitative Physiology, Cells and Tissues
2.771J Biomedical Information Technology
2.782J Design of Medical Devices
3.052 Nanomechanics

By Petition: Harvard U – Orthopedic Biomechanics (see
<http://www.courses.fas.harvard.edu/6149>)