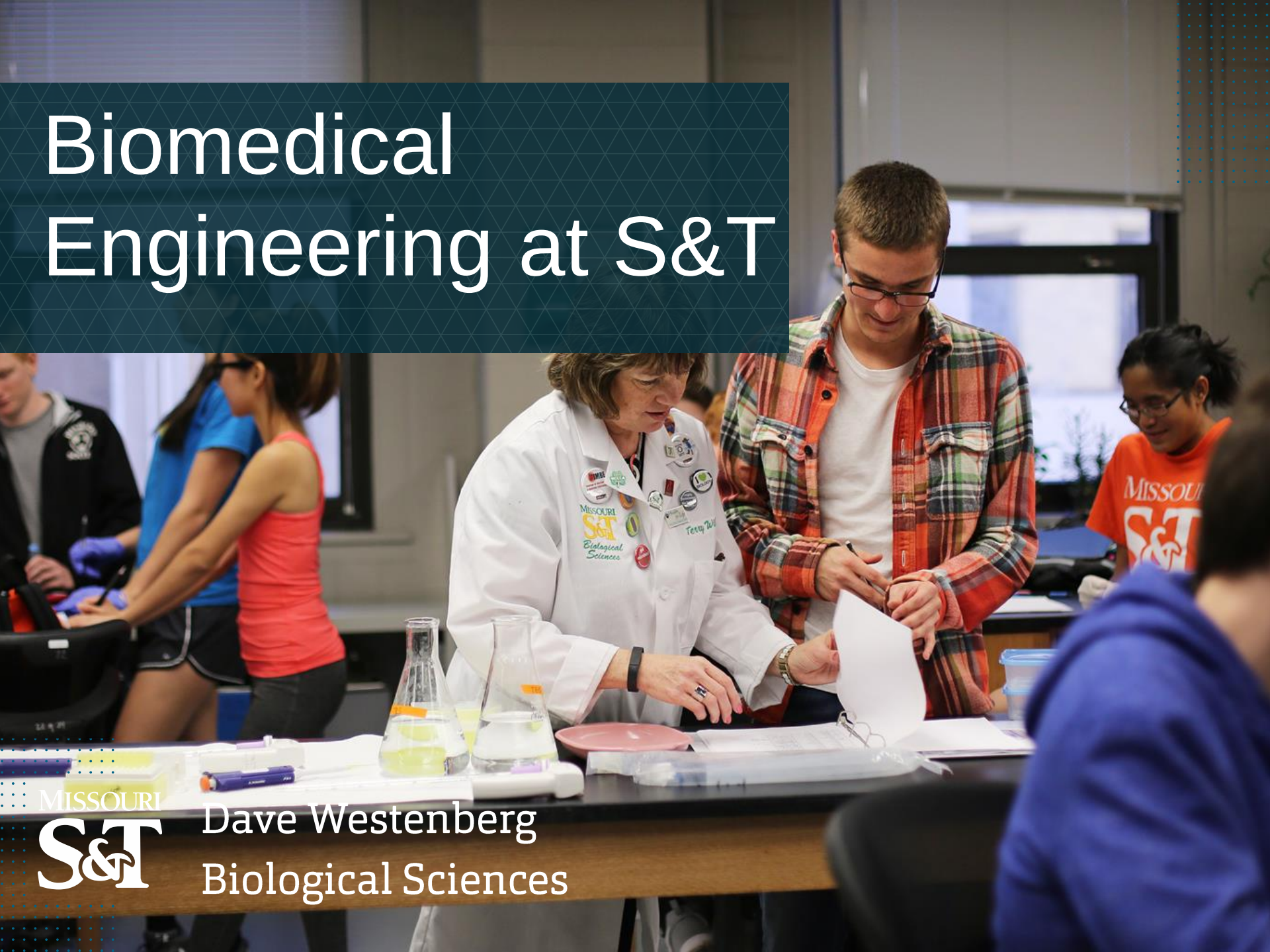
Biomedical Engineering at S&T



MISSOURI S&T

Dave Westenberg
Biological Sciences

Biomedical Engineering

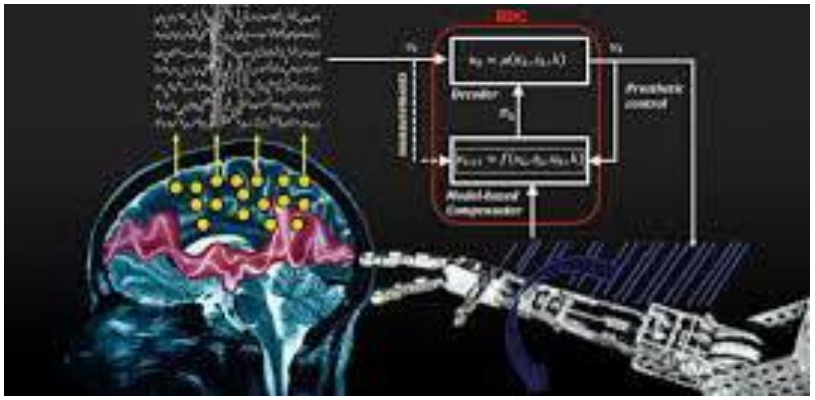
Interdisciplinary BME Minor started in Fall 2015

Open to science and engineering undergraduates

Requirements: 15 hours of coursework

Contact BME Minor program committee for course information:

Dr. Nuran Ercal (Chem)
Dr. Xian Huang (MAE)
Dr. Len Rahaman (MSE)
Dr. Chang-Soo Kim (ECE)
Dr. Yue-Wern Huang (Bio Sci)
Dr. David Westenberg (Bio Sci/CBE)



MISSOURI S&T

BME Minor Curriculum

- Minimum number of credit hours: 15
- Required course: Introduction to Biomedical Engineering
- At least 2 of the elective courses will be at or above the 4000 level. Core courses used toward a student's major degree requirements cannot be used for the minor degree program in BME. Elective courses used toward a student's major degree requirements or another minor degree program cannot be used unless they are approved by the BME Program Committee.

MISSOURI S&T

Electives

Cell Biology (3h)
Cell Biology Lab (1h)
General Genetics (3h)
Microbiology (3h)
Microbiology Lab (1h)
Human Anatomy & Physiology I (3h)
Human Anatomy & Physiology I 1h)
Human Anatomy & Physiology II (3h)
Human Anatomy & Physiology II Lab (1h)
Biomedical Problems (3h)
Biochemical Reactors (3h)
Molecular Genetics (3h)

Cancer Cell Biology (3h)
Toxicology (3h)
General Biochemistry (3h)
Metabolism (3h)
Advanced Nanobiotechnology (2h)
Biomaterials I (3 h)
Tissue Engineering I (3 h)
Introduction to Nanomaterials (3h)
Bioinformatics (3 h)
Introduction to Biostatistics (4h)
Technical Entrepreneurship (3h)
Undergraduate Research (3 h)

MISSOURI S&T

Sample Curriculum -

Intro to BME (3 h) + 4 courses from the following:

Cell Biology (Bio Sci 2213); Microbiology (Bio Sci 3313); Human Anatomy & Physiology I (Bio Sci 3333); Human Anatomy & Physiology II (Bio Sci 3343); Cancer Cell Biology (Bio 4353); Advanced Nanobiotechnology (Bio Sci 5001); Biomaterials I (Cer Eng/Met Eng/Bio Sci 5210; Chem Eng 5200); Tissue Engineering I (MSE 5210; Bio Sci 5240); Introduction to Nanomaterials (Chem Eng 5320); Intro to Biostatistics (Stat 5425); Technical Entrepreneurship (Eng Mgt 5511); Undergraduate Research (4099)

MISSOURI S&T

Sample Curriculum -

Intro to BME (3 h) + 4 courses from the following:

Biomedical Problems (Bio Sci 3483); Cancer Cell Biology (Bio Sci 4353); Toxicology (Bio Sci 4383); General Biochemistry (Chem 4610); Metabolism (Chem 4620); Advanced Nanobiotechnology (Bio Sci 5001); Biomaterials I (Cer Eng/Met Eng/Bio Sci 5210; Chem Eng 5200); Tissue Engineering I (MSE 5210; Bio Sci 5240); Introduction to Nanomaterials (Chem Eng 5320); Intro to Biostatistics (Stat 5425); Technical Entrepreneurship (Eng Mgt 5511); Undergraduate Research (4099)

MISSOURI S&T

Sample Curriculum -

Intro to BME (3 h) + 4 courses from the following:

Cell Biology (Bio Sci 2213); Microbiology (Bio Sci 3313); Human Anatomy & Physiology I (Bio Sci 3333); Human Anatomy & Physiology II (Bio Sci 3343); Cancer Cell Biology (Bio 4353); Advanced Nanobiotechnology (Bio Sci 5001); Biomaterials I (Cer Eng/Met Eng/Bio Sci 5210; Chem Eng 5200); Tissue Engineering I (MSE 5210; Bio Sci 5240); Introduction to Nanomaterials (Chem Eng 5320); General Biochemistry (Chem 4610); Metabolism (Chem 4620); Intro to Biostatistics (Stat 5425); Technical Entrepreneurship (Eng Mgt 5511); Undergraduate Research (4099)

MISSOURI S&T

Questions?