

Suggested Course Sequence

FRESHMAN YEAR
Fall
Physics 2130/2131 or 2170/2171
Mathematics 1800
English (BC)
General Education Req.
Winter
Physics 2140/2141 or 2180/2181
Chemistry 1220/1230
Mathematics 2010
English (IC)
SOPHOMORE YEAR
Fall
Physics 3700: Mathematics for Biomedical Physics
Chemistry 1240/50
Mathematics 2020
Biology 1500
Winter
Physics 4700: Introduction to Biomedical Physics
Biology 1510
College Foreign Lang. I
General Education Req.

JUNIOR YEAR
Fall
Physics 5340/41: Optics
Chemistry 2220/2230 or 2280/2290
Biology Elective
College Foreign Lang. II
Winter
Physics 5620: Electronics
Science Elective
Science Elective
College Foreign Lang. III
SENIOR YEAR
Fall
Physics 6700: Biological Physics
Physics 5700: Biomedical Physics Seminar
Science Elective
College Group Req.
General Education Req.
Winter
Physics/Radiology 6710: Physics in Medicine
Physics 6780: Biomedical Physics Research
College Group Req.
General Education Req.

For more info, please contact Prof. Peter Hoffmann at hoffmann@wayne.edu

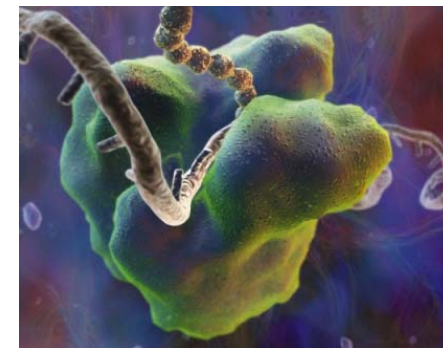
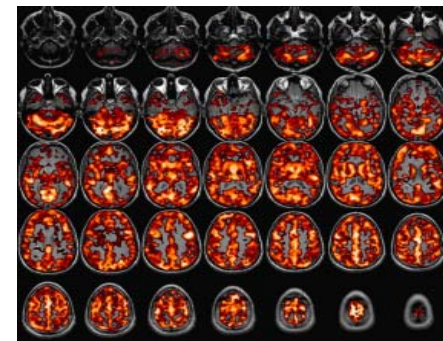


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WAYNE STATE UNIVERSITY

New Degree Program in BIOMEDICAL PHYSICS



BIOMEDICAL PHYSICS



Biomedical Physics deals with the applications of physics to biology and medicine.

This includes:

- Medical Imaging
- Radiation therapy
- Biotechnology
- Molecular biophysics

The new Program



The new interdisciplinary biomedical physics program combines classes in Physics, Biology, Chemistry and Medical Applications to prepare students for the job market of tomorrow.

This new major is unique and is not offered at any other university in Michigan.

The biomedical physics program is designed to provide a degree that can lead to several exciting careers:

- Medical School
- Pharmacy school
- Industry - R & D in medical instrumentation, pharmaceuticals
- Graduate school in
 - Medical Physics
 - Biophysics
 - Physics
 - Biomedical Engineering

New application-based courses



Specially designed courses teach the applications of Physics to Biology and Medicine:

PHY 3700 (Mathematics for Biomedical Physics) (4 cr.)

Special mathematics course for biomedical physics majors - Calculus, Statistics.

PHY 4700 (Introduction to Biomedical Physics) (4cr.)

Modern Physics topics for Biomedical physics: Quantum mechanics, nuclear physics, Magnetic resonance etc.

PHY 6700: Biological Physics (4 cr.)

Applications of Physics to molecular scale biology using many examples from current research.

RAD/PHY 6710: Physics in Medicine (3 cr.)

Applications of Physics to modern medicine: Medical Imaging, Radiation therapy etc. Will be taught by faculty from Medical Physics.

PHY 5700: Biomedical Physics Seminar (3 cr.)

Students will present modern research topics in the application of Physics to Biology and Medicine. Students can also present their own research in Bio- or Medical Physics.

PHY 6780: Biomedical Physics Research (3 cr.)

Students will participate in research projects in Bio- or Medical Physics.

Career Choices: Medical School and beyond



The new Biomedical Physics program is an ideal program to prepare you for Medical School or many other alternative careers.

If you are a student that likes to combine Physics, Mathematics, Biology, Chemistry and Engineering in a highly interdisciplinary program, Biomedical Physics is for you!

You may know that only about 5% of all premedical students make it into Medical School. So you need any edge you can get. If you love to learn about the physics and technology of biological systems and medicine, and want to be different from most premedical students, you may want to consider the new Biomedical Physics program.

In addition to Medical School, the Biomedical Physics program can also lead to excellent alternative careers:

- MS/Ph.D. in Materials Science or Biomedical Engineering through the university A grade program (ask us for details).
- MS or Ph.D. in Medical Physics
- Pharmacy School
- or a career in Biomedical devices (Industry)