

APPROVED ELECTIVES FOR NANOTECHNOLOGY AND BIOMATERIALS CONCENTRATIONS
Course Offering Schedule (as of June 2021)

| Course Number | Course Title | Instructor |
|--|---|-------------------|
| Nanotechnology Concentration (select 3, to go with required 510.442) | | |
| 510.442 | Nanomaterials Lab | McGuiggan |
| 510.427 | Chemistry of Nanomaterials | Hall |
| 510.422 | Micro- and Nano- Structured Materials and Devices | Hall |
| 510.400 | Introduction to Ceramics | McGuiggan |
| 510.403 | Materials Characterization | McGuiggan |
| 510.405 | Materials Science of Energy Technologies | Erlebacher |
| 510.414 | Transmission Electron Microscopy: Principle & Practice | Chen |
| 510.420 | Stealth Science and Engineering | Spicer |
| 510.451 | Quantum Physical Interactions | Spicer |
| 510.415 | Chemistry of Materials Synthesis | Katz |
| 510.443 | Chemistry and Physics of Polymers | Katz |
| 510.425 | Advanced Materials for Energy Storage | Chen |
| 510.457 | Materials Science of Thin Films | Weih |
| 530.417 | Fabricatology – Advanced Materials Processing | Kang |
| 530.495 | Microfabrication Laboratory | Wang |
| 540.403 | Colloids and Nanoparticles | Bevan |
| 540.440 | Micro/Nanotechnology: The Science and Engineering of Small Structures | Gracias |
| Biomaterials Concentration (select 3, to go with required 510.430) | | |
| 510.430 | Biomaterials Laboratory | Hristova |
| 510.407 | Biomaterials II | Gu |
| 510.426 | Biomolecular Materials | Hristova |
| 510.435 | Mechanical Properties of Biomaterials | Weih |
| 510.402 | Dynamics of Soft Materials | McGuiggan |
| 510.436 | Biomaterials for Cell Engineering | Gu |
| 530.436 | Bioinspired Science and Technology | Kang |
| 540.402 | Metabolic Systems Biotechnology | Betenbaugh |
| 580.441 | Cellular Engineering | Green/Yarema |
| 580.442 | Tissue Engineering | Elisseff/Grayson |
| 510.437 | Biosensor Materials and Mechanisms | Katz |
| 510.415 | Chemistry of Materials Synthesis | Katz |
| 510.443 | Chemistry and Physics of Polymers | Katz |
| 540.403 | Colloids and Nanoparticles | Bevan |

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| 580.444 | Biomedical Applications of Glycoengineering | Yarema |
| 580.452 | Cell and Tissue Engineering Lab | Haase |
| 540.465 | Engineering Principles of Drug Delivery | Sofou |
| 540.428 | Supramolecular Materials and Nanomedicine | Cui |
| 530.445 | Intro to Biomechanics | MechE faculty |

This list is NOT meant to be exhaustive. Other courses on campus can be selected, as long as they focus on bio or nano (email Prof. Orla Wilson, owilson@jhu.edu if you have questions).