**NE TECHNICAL ELECTIVES**

**Nuclear Engineering Technical Electives**
- NE 439 Intro to Radioactive Waste Management
- 468 Introduction to Space Nuclear Power
- 485 Fusion Technology
- *499 Selected Topics

**TECHNICAL ELECTIVES**

**Chemical & Biological Engr Technical Electives**
- CBE 427 Engineering Design for Global Health
- 472 Biomaterials Engineering
- 476 Nuclear Chemical Engineering
- 477 Electrochemical Engineering
- 486 Introduction to Statistics and Design of Experiments
- 499 Selected Topics

**Civil Engineering Technical Electives**
- CE 302 Mechanics of Materials
- 335 Environmental & Water Resource Engr.
- 431 Physical-Chemical Water Treatment
- 433 Environmental Microbiology
- 436 Biological Wastewater Treatment
- 438 Sustainable Engineering
- 440 Design of Hydraulic Systems
- 441 Hydrogeology
- 442 Hydrogeologic Engr & Hydrology

**Electrical Engineering Technical Electives**
- ECE 300 Advanced Engineering Mathematics
- 314 Signals and Systems
- 321L Electronics I
- 345 Intro to Control Systems

360 Electromagnetic Fields and Waves
381 Intro to Electric Power Systems
384 Electromechanical Energy Conversion

**Mechanical Engineering Technical Electives**
- ME 306 Dynamics
- 400 Numerical Methods in Mechanical Engr.
- 404 Computational Mechanics
- 455 Engineering Project Management

**Biology Technical Electives**
- BIOL 2110L Principles of Biology: Cellular and Molecular Lecture and Laboratory
- 2210L Human Anatomy & Physiology I
- 2305L Microbiology for Health Sciences

**Chemistry Technical Electives**
- CHEM 2510 Quantitative Analysis Lecture & Lab
- 301 Organic Chemistry I
- 302 Organic Chemistry II
- 311 Physical Chemistry I
- 312 Physical Chemistry II
- 315 Intro to Physical Chemistry

**Earth & Planetary Sciences Technical Electives**
- EPS 301 Mineralogy/Earth & Planetary Materials
- 333 Environmental Geology
- 352 Global Climate Change
- 365 Exploring the Solar System
- 405L Stable Isotope Geochemistry
- 410 Fundamentals of Geochemistry
- 415 Geochemistry of Natural Waters

**Math Technical Electives**
- MATH 311 Vector Analysis
- 312 PDEs for Engineers
- 314 Linear Algebra with Applications
- 321 Linear Algebra
- 356 Symbolic Logic
- 375 Intro to Numerical Computing
- 441 Probability

**Physics Technical Electives**
- PHYS 2415 Computational Physics
- 301 Thermodynamics and Statistical Physics
- 302L Optics Lab
- 303 Analytical Mechanics I
- 304 Analytical Mechanics II
- 327 Geophysics
- 366 Mathematical Methods of Physics (4)
- 405 Electricity and Magnetism I
- 406 Electricity and Magnetism II
- 430 Introduction to Solid State Physics
- 450 Intro to Subatomic Physics
- 495 Theory of Special Relativity

**Air Force Aerospace Studies**
- AFAS 300
- 400
- 401

**Military Science and Leadership Technical Electives**
- MLSL 301 Adaptive Tactical leadership
- 303 Military History of the US
- 401 Developing Adaptive Leaders
- 402 Leadership in a Complex World

**Naval Science**
- NVSC 300 Sea Power
- 303 Navigation
- 304 Naval Operations
- 331 Evolution of Warfare
- 401 Leadership and Management
- 407 Principles of Naval Leadership
- 431 Amphibious Warfare

The above courses are the ones that are most relevant to nuclear engineering that are readily available to undergraduates. For individual students wishing to specialize in an area, there may be additional courses that would be appropriate. However, the student must obtain prior approval from the NE advisor before taking any course not on this list.

For the highly qualified student, certain 500 level NE courses may be available in the senior year. To take these requires the consent of the NE advisor, the instructor of the course, the chairman of the department, and the dean of the college. The chairperson may allow up to 3 hours of technical electives for students taking required ROTC courses in aerospace or naval science. *NE 499 Nuclear Security topics are not available for credit for students enrolled in a NE degree program.*