

Course Code	Title
ASTRON 2E03	Planetary Astronomy
ASTRON 3X03	Galaxies and Cosmology
ASTRON 3Y03	Stellar Structure
ASTRON 4X03	Data Analysis Project Course
BIOCHEM 2B03	Nucleic Acid Structure and Function
BIOCHEM 2BB3	Protein Structure and Enzyme Function
BIOCHEM 2EE3	Metabolism and Physiological Chemistry
BIOCHEM 3BP3	Practical Bioinformatics in the Genomics Era
BIOCHEM 3CB3	Emerging Discovery in Cell Biology
BIOCHEM 3D03	Metabolism and Regulation

BIOCHEM 3G03	Proteins and Nucleic Acids
BIOCHEM 3H03	Clinical Biochemistry
BIOCHEM 3Z03	Structural Determination and Analysis of Macromolecules
BIOCHEM 4E03	Gene Regulation in Stem Cells and Development
BIOCHEM 4H03	Biotechnology and Drug Discovery
BIOCHEM 4J03	Immunological Principles in Practice
BIOCHEM 4M03	Cellular and Integrated Metabolism
BIOCHEM 4N03	Molecular Membrane Biology
BIOCHEM 4Q03	Biochemical Pharmacology
BIOLOGY 1A03	Cellular and Molecular Biology
BIOLOGY 2A03	Integrative Physiology of Animals

BIOLOGY 2B03	Cell Biology
BIOLOGY 2C03	Genetics
BIOLOGY 2EE3	Introduction to Microbiology and Biotechnology
BIOLOGY 3P03	Cell Physiology
BIOLOGY 3VV3	Laboratory Methods in Molecular Biology
BIOLOGY 4PP3	Environmental Microbiology and Biotechnology
BIOLOGY 4T03	Neurobiology
BIOPHYS 3D03	Origin of Life
BIOPHYS 3G03	Modelling Life
BIOPHYS 3S03	Soft Condensed Matter Physics
BIOPHYS 4S03	Introduction to Molecular Biophysics
CHEM 1AA3	Introductory Chemistry II
CHEM 2E03	Introductory Organic Chemistry

CHEM 20A3	Organic Chemistry I
CHEM 20B3	Organic Chemistry II
CHEMBIO 2P03	Physical Chemical Tools for Chemical Biology
CHEMENG 2D04	Chemical Engineering Principles I
CHEMENG 3D03	Chemical Engineering Thermodynamics
CHEMENG 3K04	Introduction to Reactor Design
CHEMENG 3M04	Mass Transfer and Stagewise Operations
CHEMENG 3Q03	Introduction to Polymer Science
CHEMENG 4B03	Polymer Reaction Engineering
CHEMENG 4G03	Optimization in Chemical Engineering
CHEMENG 4H03	Big Data Methods and Modelling in Chemical and Materials Engineering
CHEMENG 4K03	Reactor Design for Heterogeneous Systems
CHEMENG 4M03	Industrial Separation Processes

CHEMENG 4T03	Applications of Chemical Engineering in Medicine
CHEMENG 4X03	Polymer Processing
CHEMENG 4Z03	Interfacial Engineering
CIVENG 2B04	Principles of Environmental Engineering
CIVENG 2J04	Principles of Geological and Geoenvironmental Engineering
CIVENG 3A03	Geotechnical Engineering I
CIVENG 3B03	Geotechnical Engineering II
CIVENG 3G04	Structural Analysis
CIVENG 3J04	Reinforced Concrete Design
CIVENG 3K03	Introduction to Transportation Engineering
CIVENG 3L03	Water Quality
CIVENG 3M03	Municipal Hydraulics
CIVENG 3P04	Civil Engineering Materials and Design

CIVENG 4A04	Engineering Hydrology
CIVENG 4BP4	Building Science
CIVENG 4ED4	Seismic Design of Structures
CIVENG 4G04	Pavement Materials and Design
CIVENG 4K04	Modern Methods of Structural Analysis
CIVENG 4L04	Design of Water Resources Systems
CIVENG 4N04	Steel Structures
CIVENG 4S04	Foundation Engineering
CIVENG 4SD4	Structural Dynamics and Earthquake Engineering
CIVENG 4T04	Transportation Engineering II - Modelling Transit and ITS
CIVENG 4V04	Biological Aspects of Wastewater Treatment
CIVENG 4W04	Design of Low Rise Buildings
CIVENG 4Y04	Bridges and Other Structural Systems

COMPENG 2SH4	Principles of Programming
COMPENG 2SI3	Data Structures and Algorithms
COMPENG 3DQ5	Digital Systems Design
COMPENG 3DR4	Computer Organization
COMPENG 3SM4	Algorithm Design and Analysis
COMPENG 4DK4	Computer Communication Networks
COMPENG 4DM4	Computer Architecture
COMPENG 4DN4	Advanced Internet Communications
COMPENG 4DS4	Embedded Systems
COMPENG 4EK4	Microelectronics
COMPENG 4SL3	Fundamentals of Machine Learning
COMPENG 4TL4	Digital Signal Processing
COMPENG 4TN4	Image Processing

COMPSCI 1DM3	Discrete Mathematics for Computer Science
COMPSCI 1XC3	Computer Science Practice and Experience: <u>Development Basics</u>
COMPSCI 1XD3	Computer Science Practice and Experience: <u>Introduction to</u>
COMPSCI 2C03	Data Structures and Algorithms
COMPSCI 3DM3	Introduction to Data Mining
COMPSCI 4ML3	Introduction to Machine Learning
COMPSCI 4TI3	Fundamentals of Image Processing
DATASCI 2G03	Scientific Computing
DATASCI 3ML3	Introduction to Neural Networks and Machine Learning
DATASCI 3VG3	Physics for Video Games
DATASCI 4X03	Data Analysis Project Course
ELECENG 3BA3	Structure of Biological Materials
ELECENG 3BB3	Cellular Bioelectricity

ELECENG 3CL4	Introduction to Control Systems
ELECENG 3FK4	Electromagnetics 2
ELECENG 3PI4	Energy Conversion
ELECENG 3TR4	Communication Systems
ELECENG 4BB3	Cellular Biology
ELECENG 4BD4	Biomedical Instrumentation
ELECENG 4BF4	Medical Imaging
ELECENG 4CL4	Control System Design
ELECENG 4EK4	Microelectronics
ELECENG 4EM4	Photonic Devices and Systems
ELECENG 4FJ4	Devices and Antennas for Wireless Systems
ELECENG 4OH4	Advanced Research Project
ELECENG 4OJ4	Research Project

ELECENG 4PK4	Power Electronics
ELECENG 4PL4	Energy Systems and Management
ELECENG 4PM4	Electrical Power Systems
ELECENG 4PP4	Smart and Micro Grids
ELECENG 4TK4	Digital Communications Systems
ELECENG 4TM4	Digital Communications II
ENGINEER 4EX3 A/B	Experiential Engineering Design
ENGPHYS 3D03	Principles of Nuclear Engineering
ENGPHYS 3E04	Fundamentals of Physical Optics
ENGPHYS 3ES3	Introduction to Energy Systems
ENGPHYS 3F03	Advanced Applications of Quantum Mechanics
ENGPHYS 3H04 a/B S	Research Project in Engineering Physics
ENGPHYS 3O04	Introduction to Fluid Mechanics and Heat Transfer

ENGPHYS 3PD3	Photonic Devices
ENGPHYS 3PN4	Semiconductor Junction Devices
ENGPHYS 4B03	Biosensors
ENGPHYS 4D03	Nuclear Reactor Physics
ENGPHYS 4H04 a/B S	Research Project in Engineering Physics
ENGPHYS 4I03	Introduction to Biophotonics
ENGPHYS 4MD3	Nanoscale Semiconductor Devices
ENGPHYS 4NE3	Advanced Nuclear Engineering
ENGPHYS 4P03	Nuclear Power Plant Systems and Operation
ENGPHYS 4PP3	Plasma Physics Applications
ENGPHYS 4QC3	Introduction to Quantum Computing
ENGPHYS 4S03	Lasers and Electro-Optics
ENGPHYS 4UB2	Modern and Applied Physics Laboratory – Biomedical

ENGPHYS 4UM2	Modern and Applied Physics Laboratory – Nano- and Micro-devices
ENGPHYS 4UN2	Modern and Applied Physics Laboratory: Nuclear Labs
ENGPHYS 4UP2	Modern and Applied Physics Laboratory: Photonics
ENGPHYS 4US2	Modern and Applied Physics Laboratory: Smart Systems
ENGPHYS 4X03	Introduction to Photovoltaics
ENGPHYS 4Z03	Semiconductor Manufacturing Technology
HTHSCI 2F03	Human Physiology and Anatomy I
HTHSCI 2L03	Anatomy and Physiology I: Communication
HTHSCI 2LL3	Anatomy and Physiology II: Homeostasis
HTHSCI 3I03	Introductory Immunology
KINESIOL 2Y03	Human Anatomy and Physiology I
KINESIOL 2YY3	Human Anatomy and Physiology II
LIFESCI 3K03	Neural Control of Human Movement

MATH 2LA3	Applications of Linear Algebra
MATH 2R03	Theory of Linear Algebra
MATH 3A03	Real Analysis I
MATH 3B03	Geometry
MATH 3C03	Mathematical Physics I
MATH 3CY3	Cryptography
MATH 3D03	Mathematical Physics II
MATH 3DC3	Discrete Dynamical Systems and Chaos
MATH 3GR3	Abstract Algebra
MATH 3H03	Number Theory
MATH 3IA3	Introduction to Analysis
MATH 3MB3	Introduction to Modelling
MATH 3NA3	Numerical Linear Algebra

MATH 3QC3	Introduction to Quantum Computing
MATH 3T03	Inquiry in Topology
MATH 3TP3	Truth and Provability: Gödel's Incompleteness Theorems
MATH 3U03	Combinatorics
MATH 3V03	Graph Theory
MATH 4A03	Real Analysis II
MATH 4AT3	Topics in Analysis
MATH 4B03	Calculus on Manifolds
MATH 4BT3	Topics in Geometry
MATH 4E03	Galois Theory
MATH 4ET3	Topics in Algebra
MATH 4FM3	Financial Markets and Derivatives
MATH 4FT3	Topics in Differential Equations (Stability and Bifurcations)

MATH 4GR3	Groups and Rings
MATH 4L03	Introduction to Mathematical Logic
MATH 4LT3	Topics in Logic
MATH 4MB3	Mathematical Biology
MATH 4NA3	Numerical Methods for Differential Equations
MATH 4TT3	Topics in Topology
MATH 4W03	Reading in Mathematics
MATH 4WW3	Reading in Mathematics II
MATH 4X03	Complex Analysis II
MATLS 2A03	Crystalline Structure of Materials
MATLS 2D03	Thermodynamics of Alloys and Phase Diagrams
MATLS 3B03	Materials Production
MATLS 3C03	Applied Thermodynamics

MATLS 3E04	Mass Transfer
MATLS 3F03	High-Temperature Materials Production
MATLS 3M03	Mechanical Behaviour of Materials
MATLS 3MF3	Materials Fabrication
MATLS 3Q03	Materials for Electronic Applications
MATLS 3T04	Phase Transformations
MATLS 4B03	Biomechanics and Tissue Engineering
MATLS 4C03	Modern Iron and Steelmaking
MATLS 4D03	Corrosion
MATLS 4FF3	Synthesis, Applications, and Environmental Impact of Nanomaterials
MATLS 4G03	Characterization of Nanomaterials
MATLS 4H03	Thin Film Science and Engineering
MATLS 4I03	Sustainable Manufacturing Processes

MATLS 4MS4	Materials Selection in Design and Manufacturing
MATLS 4NN3	Computational Modelling in Materials Engineering
MATLS 4P03	Properties of Polymeric Materials
MATLS 4Q03	Materials for Sensors in Big Data and AI Systems
MATLS 4T03	Properties and Processing of Composites
MECHENG 2A03	Design Communication
MECHENG 2C04	Mechanical Engineering Design I
MECHENG 2D03	Mechanical Engineering Design Elements
MECHENG 2Q04	Engineering Mechanics: Kinetics and Dynamics
MECHENG 3A03	Engineering Mechanics
MECHENG 3C03	Manufacturing Engineering
MECHENG 3E05	Mechanical Engineering Design II
MECHENG 4AA3	Aerodynamics

MECHENG 4BB3	Biomechanics
MECHENG 4BF3	Biofluid Mechanics
MECHENG 4C03	Production Systems Engineering
MECHENG 4CC3	Experimental and Computational Biomechanics
MECHENG 4D03	Manufacturing Processes (Metal Removal)
MECHENG 4E03	Microelectromechanical Systems (MEMS)
MECHENG 4ES3	Energy Storage Systems
MECHENG 4H03	Mechatronics
MECHENG 4I03	Noise Analysis and Control
MECHENG 4J03	Introduction to Computational Fluid Mechanics and Heat Transfer
MECHENG 4K03	Robotics
MECHENG 4L03	Industrial Design
MECHENG 4N03	Nanobio Engineering

MECHENG 4004	Sustainable Energy Systems
MECHENG 4Q03	Mechanical Vibrations
MECHENG 4R03	Control Systems
MECHENG 4S03	Incompressible Flow
MECHENG 4T03	Finite Element Applications
MECHENG 4U03	Compressible Flow and Turbomachinery
MECHENG 4V03	Thermo-Fluids Systems Design and Analysis
MECHENG 4W03	Air Conditioning and Refrigeration Systems
MECHENG 4Y03	Internal Combustion Engines
MECHENG 4Z03	CAD/CAM/CAE
MECHTRON 2MD3	Data Structures, Algorithms, and Language Concepts for Mechatronics
MECHTRON 2MP3	Programming for Mechatronics
MECHTRON 3DX4	Dynamic Models and Control of Physical Systems

MEDPHYS 3C03	<u>Operational Health Physics: Laboratory & Communication</u>
MEDPHYS 4B03	<u>Radioactivity and Radiation Interactions</u>
MEDPHYS 4D03	<u>Imaging in Medicine and Biology</u>
MEDPHYS 4F03	<u>Fundamentals of Health Physics</u>
MEDPHYS 4RA3	<u>Radiation and Radioisotope Methodology I</u>
MEDPHYS 4RB3	<u>Radiation and Radioisotope Methodology II</u>
MEDPHYS 4T03	<u>Clinical Applications of Physics in Medicine</u>
MEDPHYS 4U03	<u>Radiation Biology</u>
MOLBIO 3B03	Advanced Cell Biology
PHYSICS 2G03	Scientific Computing
PHYSICS 3A03	Relativity
PHYSICS 3C03	Analytical Mechanics
PHYSICS 3G03	Introduction to Neural Networks and Machine Learning

PHYSICS 3MM3	Quantum Mechanics I
PHYSICS 3QI3	Quantum Information
PHYSICS 4B03	Electromagnetic Theory
PHYSICS 4E03	Particle and Nuclear Physics
PHYSICS 4F03	Quantum Mechanics II
PHYSICS 4G03	Computational Physics
PHYSICS 4K03	Solid State Physics
PHYSICS 4Q03	Quantum Field Theory
PSYCH 4KK3	Bayesian Inference
SFWRENG 2AA4	Software Design I - Introduction to Software Development
SFWRENG 2C03	Data Structures and Algorithms
SFWRENG 2DA4	Digital Systems and Interfacing
SFWRENG 2DM3	Mathematics with Applications I

SFWRENG 2FA3	Mathematics and Applications II
SFWRENG 2GA3	Computer Architecture
SFWRENG 2OP3	Object-Oriented Programming
SFWRENG 2S03	Principles of Programming
SFWRENG 2XC3	Software Engineering Practice and Experience: <u>Development Basics</u>
SFWRENG 3DB3	Databases
SFWRENG 3DX4	Dynamic Models and Control of Physical Systems
SFWRENG 3FP3	Functional Programming
SFWRENG 3GC3	Computer Graphics
SFWRENG 3K04	Software Development
SFWRENG 3O03	Linear Optimization
SFWRENG 3SH3	Operating Systems
SFWRENG 4AA4	Real-Time Systems and Control Applications

SFWRENG 4AD3	Advanced Databases
SFWRENG 4C03	Computer Networks and Security
SFWRENG 4E03	Performance Analysis of Computer Systems
SFWRENG 4F03	Parallel Computing
SFWRENG 4J03	Communications Systems
SFWRENG 4TE3	Continuous Optimization Algorithms
SFWRENG 4TH3	Theory of Computation
STATS 2D03	Introduction to Probability
STATS 2DA3	An Introduction to Data Science Methods
STATS 2MB3	Statistical Methods and Applications
STATS 3A03	Applied Regression Analysis with SAS
STATS 3D03	Mathematical Statistics
STATS 4A03	Time Series

STATS 4C03	Generalized Linear Models
STATS 4CI3	Computational Methods for Inference
STATS 4D03	Intermediate Probability Theory
STATS 4I03	Inference
STATS 4M03	Multivariate Analysis
STATS 4P03	Advanced Applied Statistics