Summer 2026 Tech Elective List

By utilizing this list, I acknowledge that:

- This list is *not* all-inclusive.
- Just because I *can* take a class, does not mean I *should* take a class.
- I am responsible for ensuring I meet pre-requisites.
  - Pre-requisites are enforced by the department offering the course
- Class schedules and offerings may change; classes may not be available when I register.

ACCT 3010: The Accounting Cycle

Credits: 1. Contact Hours: Lecture: 1.
Prereq: ACCT 2840.

Interactive computer-based analysis of the accounting cycle including transactions and financial statements. Preparation of journal entries and adjusting entries and completion of the closing process.

ACCT 3830: Intermediate Managerial Accounting

Credits: 3. Contact Hours: Lecture 3.
Prereq: ACCT 2850 and credit or enrollment in ACCT 3010.

Generation, communication and use of information to assist management with planning, control, and decision making in manufacturing and service organizations. Includes cost concepts and relevance to decision situations, operational and capital budgeting, and performance evaluation. Emphasis on developing effective teamwork skills as well as spreadsheet capabilities.

AGRON 3420: World Food Issues: Past and Present

(Cross-listed with ENVS 3420/ FSHN 3420).
Credits: 3. Contact Hours: Lecture 3.
Prereq: Junior Classification.

Issues associated with global agricultural and food systems including ethical, social, economic, environmental, and policy contexts. Investigation of various causes and consequences of overnutrition/undernutrition, global health, poverty, hunger, access, and distribution. Meets International Perspectives Requirement.

BBMB 3010: Survey of Biochemistry

Credits: 3. Contact Hours: Lecture 3.
Prereq: CHEM 2310 or CHEM 3310.

A survey of biochemistry: structure and function of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzymology; metabolism; biosynthesis; and selected topics. Graduation Restriction: Only one of BBMB 3010, 3030, or 3160 may count toward graduation; Not acceptable for credit toward a major in Biochemistry.

BIOL 3130: Principles of Genetics

(Cross-listed with GEN 3130).
Credits: 3. Contact Hours: Lecture 3.
Prereq: BIOL 2110 and BIOL 2120.

Introduction to the principles of transmission and molecular genetics of plants, animals, and bacteria. Structure and replication of DNA, transcription of RNA and its regulation, translation, chromosome structure and function, standard and unusual patterns of Mendelian inheritance, genetic linkage and recombination, biotechnology, and an introduction to quantitative genetics and population genetics. BIOL 2110L and BIOL 2120L strongly recommended.

BIOL 3140: Principles of Molecular Cell Biology
Credits: 3. Contact Hours: Lecture 3.
Prereq: BIOL 2110 and BIOL 2120.

Integration of elementary principles of metabolism, bioenergetics, cell structure, and cell function to develop a molecular view of how the cell works.

CHE 4120: Core Concepts in Chemical Engineering
Credits: 3. Contact Hours: Lecture 3.
Prereq: CHEM 3250, MATH 2670, PHYS 2310 or PHYS2310H, PHYS 2310L

Survey of the engineering science fundamentals in chemical engineering. Topics include material balances, energy balances, thermodynamics, transport phenome, and reaction engineering. Graduation Restriction: Credit for CHE 4120 may not be applied to any undergraduate or graduate degree programs in chemical engineering.

COMS 3110: Introduction to the Design and Analysis of Algorithms
Credits: 3. Contact Hours: Lecture 3, Discussion 1.
Prereq: COMS 2300 or CPRE 3100 and a Minimum of C- in COMS 2280, ENGL 1500, and MATH 1660.

Basic techniques for design and analysis of algorithms. Sorting, searching, graph algorithms, string matching, algorithms for secure computing such as RSA, and NP-completeness. Design techniques such as dynamic programming, divide and conquer, greedy method, and approximation. Asymptotic, worst-case, average-case and amortized analyses. Topics from advanced data structures such as balanced trees and hashing. Programming projects.

COMS 3310: Theory of Computing
(Cross-listed with LING 3310).
Credits: 3. Contact Hours: Lecture 3, Discussion 1.
Prereq: COMS 2300 or CPRE 3100 and a Minimum of C- in COMS 2280, ENGL 2500, and MATH 1660.

Models of computation: finite state automata, pushdown automata and Turing machines. Study of grammars and their relation to automata. Limits of digital computation, unsolvability and Church-Turing thesis. Relations between classes of languages.

FIN 3010: Principles of Finance
Credits: 3. Contact Hours: Lecture 3.
Prereq: ECON 1010, ACCT 2840.

Introduction to financial management with emphasis on corporate financing and investment decision making, time value of money, asset valuation, capital budgeting decision methods, cash budgeting, and financial markets.

FIN 3200: Investments
Credits: 3. Contact Hours: Lecture 3.
Prereq: FIN 3010 or MATH 2400 and STAT 2260 and credit or enrollment in MATH 1510 or MATH 1600 or MATH 1650.

Introduction to securities and markets from the viewpoint of the individual investor. Emphasis on mechanics of trading, measurement of return and risk, behavior of security prices, valuation of stocks and bonds, mutual funds, portfolio selection techniques, and performance evaluation.

FIN 4150: Business Financing Decisions
Credits: 3. Contact Hours: Lecture 3.
Prereq: FIN 3010.

In depth study of the firm's external financing decision. Emphasis on the development of cash flow statements, projected financing needs and the selection of the appropriate financing instrument. Focus on case studies and application of developed techniques on actual field project.

HCI 5840: Python Application Development in HCI
Credits: 3. Contact Hours: Lecture 3.
Prereq: Department Permission for Course.

Implement Python code and write design documents ("specs") and complement their code with sufficiently detailed documentation in development of a large Python project of the student's choosing. Typical development process: idea, specification, prototyping and implementation (including debugging, testing, refactoring) and documentation and result in a demo-able final product. Fulfills the implementation requirement of the HCI program.

KIN 3550: Biomechanics
Credits: 3. Contact Hours: Lecture 3.
Prereq: PHYS 1150 or PHYS 1310; Junior Classification or Above.

Mechanical basis of human performance; application of mechanical principles to exercise, sport and other physical activities.

KIN 3720: Motor Control and Learning Across the Lifespan
Credits: 3. Contact Hours: Lecture 3.
Prereq: BIOL 2550, BBIOL 2560, PSYCH 1010 or PSYCH 2300, Junior Classification or above.

Introduction to major concepts of neuromotor control, behavioral motor control and motor learning in the child, adult and older adult, with emphasis on the adult system.

MGMT 3700: Managing Organizations
Credits: 3. Contact Hours: Lecture 3.
Prereq: Sophomore Classification.

Introduction to management as a field and function within organizations. Provides an overview of what managers do in organizations, including how they deal with multiple stakeholders; make decisions about organizational goals, strategies, and structures that align with the external and internal environment; as well as how they lead and manage human resources effectively.

MGMT 3720: Ethical and Responsible Management
Credits: 3. Contact Hours: Lecture 3.
Prereq: Sophomore Classification.

Introduces the many aspects of ethical and responsible management in today's organization, including the ethical implications of business decision-making (and the implications of having multiple stakeholders); corporate social responsibility; ethical leadership and other leadership styles as they pertain to responsible management; and the role of corporate governance and ethical codes in developing and institutionalizing an ethical organization. Builds ethical decision-making strategies and awareness of one's own ethical leadership philosophy.

MGMT 4780: Strategic Management
Credits: 3. Contact Hours: Lecture 3.
Prereq: Credit or enrollment in ACCT 2850, ENTSP 3100, FIN 3010, MKT 3400, MGMT 3700 or MGMT 3710, SCM 3010, MIS 3010 and Senior Classification.

Examines why some organizations perform better than others, with an emphasis on how taking a holistic view of the organization and environment can lead to sustained competitive advantage. Evaluates how capabilities in various organizational functions can help enable and determine organizational strategy, and considers how strategic choices affect expectations of various functional areas and their interdependence. Emphasis on case analysis and discussion to build student competencies in the areas of internal and external analysis, complex decision-making, and the formulation, implementation, and evaluation of strategies.

MIS 3010: Management Information Systems
Credits: 3. Contact Hours: Lecture 3.
Prereq: COMS 1130.

The role of information technology in organizations. Overview of methodologies for design and development of systems including decision support systems, expert systems, data bases, end-user computing, etc. Computer applications relate concepts to practice. Lecture and laboratory work emphasizes the enabling role of IT in contemporary organizations.

MKT 3400: Principles of Marketing
Credits: 3. Contact Hours: Lecture 3.
Prereq: Credit or enrollment in ECON 1010.

The role of marketing in society. Markets, marketing institutions, and marketing functions with emphases on product, price, marketing communication, and marketing channel decisions.

MKT 4430: Strategic Marketing Management
Credits: 3. Contact Hours: Lecture 3.
Prereq: MKT 4440 and MKT 3420 or MKT 4470.

Analysis of major elements of strategic marketing management. May include case studies or business simulations involving decision making using marketing tools from previous courses.

MATH 2070: Matrices and Linear Algebra
Credits: 3. Contact Hours: Lecture 3.
Prereq: MATH 1660 or MATH 1660H.

Systems of linear equations, determinants, vector spaces, linear transformations, orthogonality, least-squares methods, eigenvalues and eigenvectors. Emphasis on applications and techniques. Graduation Restriction: Only one of MATH 2070 and MATH 3170 may be counted toward graduation.

NREM 3110: Field Ecology in Montana
Credits: 4. Contact Hours: Lecture 2, Laboratory 6.
Prereq: BIOL 2110, BIOL 2110L, BIOL 2120, BIOL 2120L and permission of instructor.

Fundamental concepts and principles of ecology dealing with organisms, populations, communities, and ecosystems. Taught at NREM's Rod and Connie French Conservation Education Camp in western Montana. Emphasizes hands-on learning of principles and methods in the field.

SCM 3010: Supply Chain Management

Credits: 3. Contact Hours: Lecture 3.
Prereq: ECON 1010.

Introduction to a wide range of supply chain management (SCM) terminology, analytical tools, and theories as related to the supply chain operations reference model (SCOR). The SCOR model focuses on planning, sourcing, making, delivering, returning, and integrating key aspects within SCM. Using an analytical approach to solve real world problems, specific topics include: strategic sourcing, supply management, demand forecasting, inventory management, process management, logistics, process integration, and returns.

STAT 4279: Statistical Computing for Data Analysis

(Dual-listed with STAT 5279).
Credits: 3. Contact Hours: Lecture 3.
Prereq: STAT 3201, STAT 3226, or STAT 5101

Modern statistical computing. Topics may include: basic and advanced R programming; data management; spread sheets; verifying data accuracy; transferring data between software packages; data and graphical analysis with statistical software packages; algorithmic programming concepts and applications; simulation studies and resampling methods; software reliability; statistical modeling and machine learning.