K12 ACADEMICS — A FIELD GUIDE FOR FAMILIES

# The Complete Guide to College Majors

40 popular majors — what you study, the skills, careers & outlook — to help you choose a path.

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2026 EDITION

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# Science & Computing

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SCIENCE & COMPUTING

# Computer Science

## WHAT IT IS

Computer science (CS) is the study of computation, algorithms, software, and the theory behind how computers solve problems . It spans the mathematical foundations of computing (what can be computed, and how efficiently) all the way to building the software, systems, and applications that run the modern world. CS is one of the most...

## WHAT YOU'LL STUDY

- **Year 1** — Intro programming (Python/Java), discrete math, calculus
- **Year 2** — Data structures & algorithms, computer organization, object-oriented programming, linear algebra
- **Year 3** — Operating systems, databases, theory of computation, software engineering, computer networks
- **Year 4** — Electives (AI/ML, security, graphics, distributed systems) plus a capstone or senior project

## CONCENTRATIONS & FOCUS AREAS

- **Artificial Intelligence & Machine Learning** — Models, data, intelligent systems
- **Cybersecurity** — Protecting systems, networks, and data
- **Software Engineering** — Large-scale, reliable software
- **Data Science & Databases** — Analyzing and managing data at scale
- **Systems & Networks** — Operating systems, distributed & cloud computing
- **Graphics, Games & HCI** — Visual computing and human-computer interaction

## AT A GLANCE

| | |
|---|---|
| Field | **Computer & Information Science…** |
| Also called | **CS** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Associate → Doctoral** |
| Entry job | **Bachelor's** |
| Outlook | **Faster than average** |

## SKILLS YOU'LL BUILD

- **Programming** — Fluency in multiple languages and paradigms
- **Algorithmic problem-solving** — Breaking hard problems into efficient solutions
- **Systems thinking** — Understanding how software, data, and hardware interact
- **Software design** — Building maintainable systems, testing, version control
- **Learning agility** — Picking up new tools and frameworks fast
- **Collaboration** — Teamwork, communication, and working on large codebases

## CAREERS & JOB TITLES

- **Software Engineer / Developer** — Building applications and systems (the largest destination)
- **Machine Learning / AI Engineer** — Building intelligent systems
- **Data Scientist / Data Engineer** — Analyzing and moving data at scale
- **Security Engineer** — Defending systems and networks
- **Systems / Backend / DevOps Engineer** — Infrastructure and reliability
- **Mobile / Web / Game Developer** — Consumer and product software

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SCIENCE & COMPUTING

# Data Science

## WHAT IT IS

Data science combines statistics, programming, and domain knowledge to extract insight from data — cleaning and analyzing large datasets, building predictive models, and communicating what the data means. It's one of the fastest-growing, most in-demand fields as data volumes and AI explode.

## WHAT YOU'LL STUDY

- **Year 1–2** — Calculus, linear algebra, probability, and programming (Python/R)
- **Year 2–3** — Statistics & inference, data wrangling, databases, data visualization
- **Year 3–4** — Machine learning, big-data tools, and a domain focus
- **Capstone** — An end-to-end data project

## CONCENTRATIONS & FOCUS AREAS

- **Machine Learning** — Predictive modeling
- **Statistics & Analytics** — Inference & analysis
- **Big Data Engineering** — Data at scale
- **Business Analytics** — Decisions from data
- **Data Visualization** — Communicating data
- **Domain Specialties** — Health, finance, etc.

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Computer & Information Science…** |
| Blend | **Stats + computing** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Entry job | **Bachelor's/Master's** |
| Outlook | **~34% (among fastest)** |

## SKILLS YOU'LL BUILD

- **Statistical modeling** — Rigorous analysis
- **Machine learning** — Building models
- **Programming** — Python, R, SQL
- **Data wrangling** — Cleaning & preparing data
- **Communication** — Turning data into decisions

## CAREERS & JOB TITLES

- **Data scientist** — The core role (~$112,590)
- **Data analyst** — Analysis & reporting
- **Machine-learning engineer** — Building ML systems
- **Business / quantitative analyst** — Decisions & strategy
- **Data engineer** — Data pipelines
- **Research / applied scientist** — With graduate study

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SCIENCE & COMPUTING

# Artificial Intelligence

## WHAT IT IS

Artificial intelligence is the study of building systems that learn, reason, and act — machine learning, neural networks, natural language, and computer vision. It's one of the fastest-moving and most consequential areas of computing, transforming nearly every industry.

## WHAT YOU'LL STUDY

- **Year 1–2** — Programming, calculus, linear algebra, probability
- **Year 2–3** — Algorithms, machine learning, and data structures
- **Year 3–4** — Deep learning, and specialties like NLP, computer vision, or reinforcement learning
- **Capstone** — An AI/ML project or research

## CONCENTRATIONS & FOCUS AREAS

- **Machine Learning** — Core ML methods
- **Deep Learning** — Neural networks
- **Natural Language Processing** — Language AI
- **Computer Vision** — Image & video AI
- **Reinforcement Learning** — Decision systems
- **AI Ethics & Safety** — Responsible AI



## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Computer & Information Science…** |
| Focus | **Intelligent systems & ML** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Entry job | **Bachelor's/Master's** |
| Outlook | **Surging (~22%+)** |

## SKILLS YOU'LL BUILD

- **Machine-learning modeling** — Designing & training models
- **Math** — Linear algebra, probability, calculus
- **Programming** — Python and ML frameworks
- **Data handling** — Preparing data for models
- **Research skills** — Reading and applying new methods

## CAREERS & JOB TITLES

- **Machine-learning engineer** — Building AI systems
- **AI researcher / research scientist** — Advancing the field (~$140,300)
- **Data scientist** — Data & modeling
- **NLP / computer-vision engineer** — Specialized AI
- **Applied scientist** — Industry R&D
- **AI product / MLOps roles** — Deploying AI

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SCIENCE & COMPUTING

# Mathematics

## WHAT IT IS

Mathematics is the study of numbers, structure, space, patterns, and logic — the foundational language of science, technology, and finance. A math degree builds exceptional abstract reasoning and problem-solving that transfers to an unusually wide range of high-paying careers.

## WHAT YOU'LL STUDY

- **Year 1–2** — Calculus sequence, linear algebra, discrete math
- **Year 2–3** — Proof-based courses: real analysis, abstract algebra
- **Year 3–4** — Electives (probability, statistics, differential equations, topology, applied math) and a capstone

## CONCENTRATIONS & FOCUS AREAS

- **Pure Mathematics** — Theory & proof
- **Applied Mathematics** — Modeling real problems
- **Statistics & Probability** — Data & uncertainty
- **Actuarial / Financial Math** — Risk & finance
- **Computational Math** — Algorithms & simulation
- **Math Education** — Teaching

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Mathematics & Statistics** |
| Studies | **Structure, patterns & logic** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Very versatile | **Yes** |
| Outlook | **Much faster than average** |

## SKILLS YOU'LL BUILD

- **Abstract reasoning** — Rigorous logical thinking
- **Problem-solving** — Modeling and solving
- **Quantitative skill** — The core advantage
- **Proof & precision** — Careful argument
- **Computational thinking** — Often programming too

## CAREERS & JOB TITLES

- **Data scientist / analyst** — Very common, well-paid
- **Actuary** — Insurance & risk
- **Quantitative analyst** — Finance
- **Software engineer** — Tech
- **Statistician / operations research** — Analytics
- **Mathematician / professor** — With a graduate degree

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SCIENCE & COMPUTING

# Biology

## WHAT IT IS

Biology is the study of living things — from molecules and cells to organisms and ecosystems . It's the broad foundation of the life sciences and one of the most popular majors, prized both for its own careers and as the gateway to medicine, dentistry, pharmacy, research, and many health professions. Because it's so broad, biology is...

## WHAT YOU'LL STUDY

- **Year 1** — General biology, general chemistry, calculus/statistics
- **Year 2** — Cell & molecular biology, organic chemistry, genetics
- **Year 3** — Physiology, ecology, evolution, microbiology; physics (for pre-health)
- **Year 4** — Upper-level electives (immunology, neurobiology, etc.), research or capstone

## CONCENTRATIONS & FOCUS AREAS

- **Cell & Molecular Biology** — Life at the cellular level
- **Ecology & Environmental Biology** — Organisms and ecosystems
- **Physiology** — How bodies work
- **Genetics** — Heredity and genomes
- **Microbiology** — Microbes and disease
- **Marine / Organismal Biology** — Whole-organism study

## AT A GLANCE

| | |
|---|---|
| Field | **Biological Sciences** |
| Scope | **Life at every scale** |
| Typical degree | **BA/BS (4 yrs)** |
| Levels | **Associate → Doctoral** |
| Common track | **Pre-med / pre-health** |
| Outlook | **Varies by path** |

## SKILLS YOU'LL BUILD

- **Scientific reasoning** — Forming and testing hypotheses
- **Lab technique** — Experiments, instruments, data collection
- **Data analysis & statistics** — Interpreting results
- **Scientific writing** — Communicating findings
- **Systems understanding** — How biological systems connect

## CAREERS & JOB TITLES

- **Biological / lab technician** — Running experiments (common first job)
- **Research assistant / associate** — Academic, pharma, or biotech labs
- **Quality / environmental / regulatory roles** — In industry and government
- **Science teacher, science writer, medical/pharma sales** — Science-adjacent careers
- **Physician, dentist, pharmacist, PA, nurse** — Via professional school
- **Research scientist / professor** — Via a PhD

## EXPLORE FURTHER

Keep exploring:

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SCIENCE & COMPUTING

# Chemistry

## WHAT IT IS

Chemistry is the study of matter — its composition, structure, properties, and the reactions that transform it . Called "the central science," it connects physics, biology, medicine, materials, and the environment, and underlies pharmaceuticals, energy, food, and manufacturing.

## WHAT YOU'LL STUDY

- **Year 1–2** — General chemistry, calculus, physics
- **Year 2–3** — Organic chemistry, analytical chemistry, physical chemistry
- **Year 3–4** — Inorganic, biochemistry, instrumental analysis, and research

## CONCENTRATIONS & FOCUS AREAS

- **Organic Chemistry** — Carbon-based molecules
- **Analytical Chemistry** — Measurement & instrumentation
- **Physical Chemistry** — Energy & theory
- **Biochemistry** — Life's chemistry
- **Materials / Polymer** — New materials
- **Environmental Chemistry** — Chemicals & ecosystems

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Physical Sciences** |
| Studies | **Matter & its transformations** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Entry | **Bachelor's for many roles** |
| Outlook | **~7% (much faster)** |

## SKILLS YOU'LL BUILD

- **Lab technique** — Experiments & instrumentation
- **Analytical reasoning** — Interpreting data
- **Quantitative skills** — Chemistry & math
- **Problem-solving** — Reactions and synthesis
- **Safety & precision** — Careful, rigorous work

## CAREERS & JOB TITLES

- **Chemist** — Pharma, materials, energy, consumer goods
- **Analytical / QC chemist** — Testing and quality
- **Research scientist** — With a graduate degree
- **Chemical / process roles** — Manufacturing
- **Forensic / environmental chemist** — Specialized labs
- **Physician / pharmacist** — Via professional school (pre-health)

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SCIENCE & COMPUTING

# Physics

## WHAT IT IS

Physics is the most fundamental science — the study of matter, energy, motion, force, and the laws that govern the universe , from subatomic particles to galaxies. It builds exceptional analytical and mathematical power that transfers across science, engineering, tech, and finance.

## WHAT YOU'LL STUDY

- **Year 1–2** — Introductory physics (mechanics, E&M), calculus, differential equations
- **Year 2–3** — Classical mechanics, electromagnetism, thermodynamics, modern physics
- **Year 3–4** — Quantum mechanics, statistical mechanics, labs, and research

## CONCENTRATIONS & FOCUS AREAS

- **Theoretical Physics** — Fundamental theory
- **Experimental / Applied Physics** — Lab and applications
- **Astrophysics** — The cosmos
- **Condensed Matter** — Materials & devices
- **Particle / Nuclear** — Fundamental particles
- **Medical / Health Physics** — Physics in medicine

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Physical Sciences** |
| Studies | **Matter, energy & the universe** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Research | **PhD typical** |
| Outlook | **Faster than average** |

## SKILLS YOU'LL BUILD

- **Advanced math** — Exceptional quantitative skill
- **Problem-solving** — Modeling complex systems
- **Computational skills** — Simulation and analysis
- **Experimental design** — Rigorous testing
- **Abstract reasoning** — First-principles thinking

## CAREERS & JOB TITLES

- **Physicist / research scientist** — With a PhD (research/academia)
- **Data scientist / quant** — Finance and tech (very common)
- **Engineer / applied scientist** — Industry R&D
- **Medical / health physicist** — Healthcare
- **Software / computational roles** — Tech
- **Teacher / professor** — Education

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SCIENCE & COMPUTING

# Environmental Science

## WHAT IT IS

Environmental science is the interdisciplinary study of the environment and how to protect it — combining biology, chemistry, geology, and policy to address pollution, climate, conservation, water, and sustainability.

## WHAT YOU'LL STUDY

- **Foundation** — Biology, chemistry, geology, calculus/statistics
- **Core** — Ecology, environmental chemistry, hydrology, climate, and environmental policy
- **Applied** — GIS, field methods, environmental assessment, and sustainability
- **Experience** — Fieldwork and often an internship

## CONCENTRATIONS & FOCUS AREAS

- **Conservation & Ecology** — Ecosystems & wildlife
- **Environmental Chemistry / Pollution** — Contaminants
- **Climate & Atmospheric** — Climate change
- **Water Resources** — Hydrology
- **Environmental Policy** — Regulation & management
- **Sustainability** — Green practices

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Physical Sciences** |
| Studies | **Environment & sustainability** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Interdisciplinary | **Yes** |
| Outlook | **~6% (faster)** |

## SKILLS YOU'LL BUILD

- **Environmental analysis** — Assessing impact
- **Field & lab methods** — Data collection
- **Data & GIS** — Spatial analysis
- **Regulatory knowledge** — Environmental law
- **Communication** — Reports and outreach

## CAREERS & JOB TITLES

- **Environmental scientist / specialist** — Consulting, government, industry
- **Environmental consultant** — Compliance & assessment
- **Conservation / sustainability roles** — Nonprofits & corporations
- **Water / air quality specialist** — Agencies
- **Policy / program analyst** — Government
- **Researcher** — With a graduate degree

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# Engineering

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ENGINEERING

# Mechanical Engineering

## WHAT IT IS

Mechanical engineering is one of the broadest engineering fields — designing, building, and analyzing machines and mechanical systems , from engines and robots to HVAC, medical devices, and manufacturing equipment. Its versatility opens more industries than any other discipline.

## WHAT YOU'LL STUDY

- **Year 1–2** — Calculus, differential equations, physics, chemistry, intro engineering
- **Year 2–3** — Core engineering science and thermodynamics, fluid mechanics, dynamics, and materials
- **Year 3–4** — Advanced discipline courses, labs, and a capstone design project
- **Throughout** — Design, teamwork, and often co-ops or internships (many programs ABET-accredited)

## CONCENTRATIONS & FOCUS AREAS

- **Design & Manufacturing** — Products & production
- **Thermal / Energy Systems** — HVAC, power, energy
- **Robotics & Mechatronics** — Automation
- **Automotive / Aerospace** — Vehicles
- **Materials & Mechanics** — Structures & materials
- **Biomechanics / Medical Devices** — Healthcare

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Engineering** |
| Focus | **Machines & mechanical systems** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Most versatile | **Yes** |
| Outlook | **~9% (much faster)** |

## SKILLS YOU'LL BUILD

- **Analytical problem-solving** — Breaking down hard problems
- **Math & modeling** — Quantitative rigor
- **Design** — Creating and testing solutions
- **Technical software** — Discipline-specific tools
- **Teamwork & communication** — Projects and clients

## CAREERS & JOB TITLES

- **Mechanical engineer** — Design & analysis (~$102,320)
- **Design / product engineer** — Developing products
- **Manufacturing / process engineer** — Production
- **Robotics / automation engineer** — Automation
- **Energy / HVAC engineer** — Thermal systems
- **Project / engineering manager** — With experience

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ENGINEERING

# Civil Engineering

## WHAT IT IS

Civil engineering designs and builds the infrastructure society depends on — roads, bridges, buildings, water systems, and transportation — balancing safety, cost, and the environment. Civil engineers shape the built world.

## WHAT YOU'LL STUDY

- **Year 1–2** — Calculus, differential equations, physics, chemistry, intro engineering
- **Year 2–3** — Core engineering science and structural analysis, geotechnical, transportation, and hydraulics
- **Year 3–4** — Advanced discipline courses, labs, and a capstone design project
- **Throughout** — Design, teamwork, and often co-ops or internships (many programs ABET-accredited)

## CONCENTRATIONS & FOCUS AREAS

- **Structural Engineering** — Buildings & bridges
- **Geotechnical** — Soils & foundations
- **Transportation** — Roads & transit
- **Water Resources / Environmental** — Water & systems
- **Construction Engineering** — Building
- **Urban / Infrastructure** — Development

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Engineering** |
| Focus | **Infrastructure** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| PE license | **Common** |
| Outlook | **Faster than average** |

## SKILLS YOU'LL BUILD

- **Analytical problem-solving** — Breaking down hard problems
- **Math & modeling** — Quantitative rigor
- **Design** — Creating and testing solutions
- **Technical software** — Discipline-specific tools
- **Teamwork & communication** — Projects and clients

## CAREERS & JOB TITLES

- **Civil engineer** — Design & oversight (~$99,590)
- **Structural engineer** — Buildings & bridges
- **Geotechnical engineer** — Foundations
- **Transportation engineer** — Roads & transit
- **Water resources engineer** — Water systems
- **Project / construction manager** — With experience

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ENGINEERING

# Electrical Engineering

## WHAT IT IS

Electrical and electronics engineering designs systems that generate, transmit, and use electricity and electronic signals — from power grids and motors to microchips, communications, and control systems. It underpins virtually all modern technology.

## WHAT YOU'LL STUDY

- **Year 1–2** — Calculus, differential equations, physics, chemistry, intro engineering
- **Year 2–3** — Core engineering science and circuits, electronics, electromagnetics, and signals & systems
- **Year 3–4** — Advanced discipline courses, labs, and a capstone design project
- **Throughout** — Design, teamwork, and often co-ops or internships (many programs ABET-accredited)

## CONCENTRATIONS & FOCUS AREAS

- **Electronics / Microelectronics** — Chips & devices
- **Power Systems** — Grids & energy
- **Signals / Communications** — Telecom & DSP
- **Control Systems** — Automation
- **Embedded Systems** — Devices
- **Semiconductors** — Hardware

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Engineering** |
| Focus | **Electricity & electronics** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Scope | **Power to microchips** |
| Outlook | **Faster than average** |

## SKILLS YOU'LL BUILD

- **Analytical problem-solving** — Breaking down hard problems
- **Math & modeling** — Quantitative rigor
- **Design** — Creating and testing solutions
- **Technical software** — Discipline-specific tools
- **Teamwork & communication** — Projects and clients

## CAREERS & JOB TITLES

- **Electrical engineer** — Design & systems (~$118,780)
- **Electronics engineer** — Devices & circuits
- **Power systems engineer** — Energy & grids
- **Communications / signals engineer** — Telecom
- **Controls / embedded engineer** — Automation
- **Semiconductor / hardware engineer** — Chips

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ENGINEERING

# Chemical Engineering

## WHAT IT IS

Chemical engineering applies chemistry, physics, biology, and math to design and run processes that turn raw materials into products — fuels, drugs, food, plastics — at industrial scale. It bridges lab chemistry and large-scale manufacturing.

## WHAT YOU'LL STUDY

- **Year 1–2** — Calculus, differential equations, physics, chemistry, intro engineering
- **Year 2–3** — Core engineering science and thermodynamics, transport phenomena, reaction engineering, and process design
- **Year 3–4** — Advanced discipline courses, labs, and a capstone design project
- **Throughout** — Design, teamwork, and often co-ops or internships (many programs ABET-accredited)

## CONCENTRATIONS & FOCUS AREAS

- **Process Engineering** — Designing processes
- **Energy / Petrochemicals** — Fuels & energy
- **Pharmaceuticals / Biotech** — Drugs & bioprocesses
- **Materials / Polymers** — New materials
- **Environmental** — Sustainability
- **Food / Consumer Products** — Manufacturing

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Engineering** |
| Focus | **Chemical processes** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Chemistry at scale | **Yes** |
| Outlook | **~10%** |

## SKILLS YOU'LL BUILD

- **Analytical problem-solving** — Breaking down hard problems
- **Math & modeling** — Quantitative rigor
- **Design** — Creating and testing solutions
- **Technical software** — Discipline-specific tools
- **Teamwork & communication** — Projects and clients

## CAREERS & JOB TITLES

- **Chemical engineer** — Process design (~$121,860)
- **Process engineer** — Optimizing production
- **Petroleum / energy engineer** — Fuels & energy
- **Pharmaceutical / biotech engineer** — Drug production
- **Materials / polymer engineer** — Materials
- **Plant / project manager** — With experience

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ENGINEERING

# Aerospace Engineering

## WHAT IT IS

Aerospace engineering designs and tests aircraft, spacecraft, satellites, and missiles — split into aeronautical (air) and astronautical (space). It's one of the most advanced and best-paid engineering fields.

## WHAT YOU'LL STUDY

- **Year 1–2** — Calculus, differential equations, physics, chemistry, intro engineering
- **Year 2–3** — Core engineering science and aerodynamics, propulsion, flight mechanics, and structures
- **Year 3–4** — Advanced discipline courses, labs, and a capstone design project
- **Throughout** — Design, teamwork, and often co-ops or internships (many programs ABET-accredited)

## CONCENTRATIONS & FOCUS AREAS

- **Aeronautical** — Aircraft
- **Astronautical** — Spacecraft & satellites
- **Propulsion** — Engines & rockets
- **Aerodynamics** — Flight & fluid dynamics
- **Structures / Materials** — Advanced materials
- **Avionics / Control** — Systems

## DEGREE LEVELS IT'S OFFERED AT

Offered across these levels — click a level to learn about it: A bachelor's (BEng/BS) is the entry credential; a master's deepens specialization and a PhD leads research. The PE license matters in many fields.

## AT A GLANCE

| | |
|---|---|
| Field | **Engineering** |
| Focus | **Aircraft & spacecraft** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| High pay | **Yes** |
| Outlook | **Faster than average** |

## SKILLS YOU'LL BUILD

- **Analytical problem-solving** — Breaking down hard problems
- **Math & modeling** — Quantitative rigor
- **Design** — Creating and testing solutions
- **Technical software** — Discipline-specific tools
- **Teamwork & communication** — Projects and clients

## CAREERS & JOB TITLES

- **Aerospace engineer** — Design & test (~$134,830)
- **Aeronautical engineer** — Aircraft
- **Astronautical engineer** — Spacecraft
- **Propulsion engineer** — Engines & rockets
- **Systems / avionics engineer** — Aircraft systems
- **Defense / space industry roles** — Government & industry

## EXPLORE FURTHER

Keep exploring:

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ENGINEERING

# Biomedical Engineering

## WHAT IT IS

Biomedical engineering applies engineering to medicine and biology — designing medical devices, imaging systems, prosthetics, and biotechnology that improve healthcare. It sits at the fast-growing intersection of engineering and healthcare.

## WHAT YOU'LL STUDY

- **Year 1–2** — Calculus, differential equations, physics, chemistry, intro engineering
- **Year 2–3** — Core engineering science and biology and physiology, biomaterials, biomechanics, and device design
- **Year 3–4** — Advanced discipline courses, labs, and a capstone design project
- **Throughout** — Design, teamwork, and often co-ops or internships (many programs ABET-accredited)

## CONCENTRATIONS & FOCUS AREAS

- **Medical Devices** — Designing devices
- **Biomaterials** — Materials for the body
- **Biomechanics** — Movement & forces
- **Medical Imaging** — Imaging technology
- **Tissue / Bioengineering** — Biological systems
- **Clinical Engineering** — Hospitals

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Engineering** |
| Focus | **Engineering + medicine** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Healthcare tech | **Yes** |
| Outlook | **Faster than average** |

## SKILLS YOU'LL BUILD

- **Analytical problem-solving** — Breaking down hard problems
- **Math & modeling** — Quantitative rigor
- **Design** — Creating and testing solutions
- **Technical software** — Discipline-specific tools
- **Teamwork & communication** — Projects and clients

## CAREERS & JOB TITLES

- **Biomedical engineer** — Devices & systems (~$106,950)
- **Medical device engineer** — Devices
- **R&D / product engineer** — Medtech
- **Clinical engineer** — Hospitals
- **Biomaterials / tissue engineer** — Materials
- **Regulatory / quality roles** — Medtech industry

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SECTION 03 OF 07

# Health & Medicine

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- Public Health 37
- Kinesiology 39
- Psychology 41

HEALTH & MEDICINE

# Nursing

## WHAT IT IS

Nursing is the science and art of caring for patients across the lifespan — assessing, treating, educating, and advocating for people in health and illness. It's one of the largest and most in-demand health professions, with a clear ladder from entry roles to advanced practice.

## WHAT YOU'LL STUDY

- **Year 1–2** — Anatomy & physiology, chemistry, microbiology, psychology, nutrition
- **Year 2–3** — Pharmacology, pathophysiology, and foundational nursing courses
- **Year 3–4** — Specialty nursing (med-surg, pediatrics, OB, mental health, community) with clinical rotations
- **Licensure** — Graduates take the NCLEX-RN to become registered nurses

## CONCENTRATIONS & FOCUS AREAS

- **Critical Care / ER** — Acute settings
- **Pediatrics / OB** — Children & maternity
- **Mental Health** — Psychiatric nursing
- **Public / Community Health** — Population health
- **Nurse Practitioner (advanced)** — Primary/specialty care
- **Nurse Educator / Leader** — Teaching & administration

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Health Professions** |
| Leads to | **RN & advanced practice** |
| Typical degree | **BSN (4 yrs)** |
| Levels | **Certificate → Doctoral** |
| Huge demand | **Yes** |
| Outlook | **Strong** |

## SKILLS YOU'LL BUILD

- **Clinical assessment** — Evaluating patients
- **Patient care** — Hands-on care
- **Critical thinking** — Under pressure
- **Communication** — With patients & teams
- **Compassion** — The heart of nursing

## CAREERS & JOB TITLES

- **Registered nurse (RN)** — The core role (~$93,600)
- **Nurse practitioner (NP)** — Advanced practice (~$132,050 APRN)
- **Clinical nurse specialist** — Specialty expertise
- **Nurse educator** — Teaching
- **Nurse leader / administrator** — Management
- **CRNA / nurse midwife** — Advanced specialties

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HEALTH & MEDICINE

# Public Health

## WHAT IT IS

Public health is the science of protecting and improving the health of communities and populations — through prevention, policy, epidemiology, and health promotion — rather than treating one patient at a time. It rose sharply in visibility and importance after recent global health events.

## WHAT YOU'LL STUDY

- **Undergraduate** — Public health, biology, statistics, and social sciences
- **Master of Public Health (MPH)** — Epidemiology, biostatistics, health policy, environmental & behavioral health
- **Concentration + practicum** — A focus area plus supervised field experience

## CONCENTRATIONS & FOCUS AREAS

- **Epidemiology** — Disease patterns
- **Biostatistics** — Health data
- **Health Policy / Management** — Systems & policy
- **Environmental Health** — Environment & health
- **Global Health** — International
- **Health Education / Behavior** — Promotion

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Health Professions** |
| Focus | **Population health** |
| Typical degree | **MPH (flagship)** |
| Levels | **Bachelor's → Doctoral** |
| Prevention-focused | **Yes** |
| Outlook | **Growing** |

## SKILLS YOU'LL BUILD

- **Data analysis** — Health statistics
- **Program design** — Prevention programs
- **Policy analysis** — Evaluating options
- **Communication** — Public messaging
- **Systems thinking** — Population health

## CAREERS & JOB TITLES

- **Epidemiologist** — Disease investigation (~$81,390)
- **Health educator / promotion** — Community health
- **Policy / program analyst** — Government & nonprofits
- **Public-health official** — Agencies
- **Health-services manager** — Administration (~$117,960)
- **Global health specialist** — International

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HEALTH & MEDICINE

# Kinesiology

## WHAT IT IS

Kinesiology & exercise science is the study of human movement, exercise, and physical activity — how the body responds to movement and how exercise improves health and performance. It's a popular foundation for careers in health, fitness, and (very often) graduate health professions . Important context: a kinesiology bachelor's is...

## WHAT YOU'LL STUDY

- **Science base** — Anatomy, physiology, chemistry, biology
- **Core** — Exercise physiology, biomechanics, motor learning, kinesiology
- **Applied** — Fitness assessment, nutrition, and (for pre-health) prerequisites

## CONCENTRATIONS & FOCUS AREAS

- **Pre-Physical/Occupational Therapy** — Toward DPT/OT
- **Exercise Physiology** — Clinical exercise
- **Strength & Conditioning** — Athletic performance
- **Fitness / Wellness** — Health promotion
- **Pre-Med / Pre-PA** — Health professions
- **Sports Science** — Performance

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Kinesiology & Fitness** |
| Focus | **Human movement & exercise** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Common track | **Pre-PT / pre-health** |
| Outlook | **Health fields growing** |

## SKILLS YOU'LL BUILD

- **Exercise science knowledge** — How the body moves
- **Assessment** — Fitness & movement testing
- **Applied science** — Physiology in practice
- **Communication** — Coaching & motivation
- **Health foundation** — For graduate study

## CAREERS & JOB TITLES

- **Physical/occupational therapist** — Via graduate school (DPT/OT)
- **Exercise physiologist** — Clinical exercise (~$55,000)
- **Strength & conditioning coach** — Athletics
- **Fitness / wellness director** — Health & fitness
- **Athletic trainer** — With a master's
- **Physician / PA** — Via professional school

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HEALTH & MEDICINE

# Psychology

## WHAT IT IS

Psychology is the scientific study of the mind and behavior — how people think, feel, learn, and act. One of the most popular majors, it builds understanding of human behavior useful in almost any field, and is the gateway to clinical, counseling, school, and research careers. Important context: the title "psychologist" is licensed and...

## WHAT YOU'LL STUDY

- **Year 1** — Intro psychology, general education, statistics
- **Year 2** — Research methods, biological psychology, developmental psychology
- **Year 3** — Cognitive, social, abnormal, and personality psychology
- **Year 4** — Electives (clinical, forensic, I-O), a research project or practicum

## CONCENTRATIONS & FOCUS AREAS

- **Clinical / Counseling** — Mental-health treatment
- **Industrial-Organizational** — Workplace & business
- **School Psychology** — Education settings
- **Developmental** — Growth across the lifespan
- **Cognitive / Neuroscience** — Thought and the brain
- **Social** — Groups and behavior

## AT A GLANCE

| | |
|---|---|
| Field | **Psychology** |
| Focus | **Mind & behavior** |
| Typical degree | **BA/BS (4 yrs)** |
| Levels | **Associate → Doctoral** |
| Very popular | **Yes** |
| Outlook | **~6% (psychologists)** |

## SKILLS YOU'LL BUILD

- **Understanding of behavior** — How people think and act
- **Research & statistics** — Designing studies, analyzing data
- **Critical thinking** — Evaluating evidence and claims
- **Communication & empathy** — Listening and explaining
- **Writing** — Clear, evidence-based writing

## CAREERS & JOB TITLES

- **Psychologist (clinical, school, I-O)** — With a graduate/doctoral degree + license
- **Counselor / therapist** — With a master's + license
- **Social & human services roles** — Case management, community services
- **HR / people operations** — Business settings
- **Research assistant / coordinator** — Academia and industry
- **Management, sales, education** — Broad bachelor's-level paths

## EXPLORE FURTHER

Keep exploring:

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SECTION 04 OF 07

# Business & Economics

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- Accounting 46
- Finance 48
- Marketing 50
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BUSINESS & ECONOMICS

# Business Administration

## WHAT IT IS

Business administration is the broad study of how organizations are run — management, finance, marketing, operations, and strategy. It's the most flexible business major, opening doors across nearly every industry, and a common foundation for an MBA.

## WHAT YOU'LL STUDY

- **Year 1–2** — Accounting, economics, statistics, and business fundamentals
- **Year 2–3** — Finance, marketing, management, and operations
- **Year 3–4** — Strategy, business law, a concentration, and often an internship or capstone

## CONCENTRATIONS & FOCUS AREAS

- **Management** — Leading teams
- **Finance** — Money & investment
- **Marketing** — Reaching customers
- **Operations / Supply Chain** — Running the business
- **Entrepreneurship** — Starting ventures
- **International Business** — Global commerce

## DEGREE LEVELS IT'S OFFERED AT

Offered across these levels — click a level to learn about it: A bachelor's is the standard entry; a master's (often an MBA) accelerates advancement into management and leadership.

## AT A GLANCE

| | |
|---|---|
| Field | **Business** |
| Breadth | **All business functions** |
| Typical degree | **BBA/BS (4 yrs)** |
| Levels | **Associate → Doctoral** |
| Very flexible | **Yes** |
| Outlook | **Faster than average** |

## SKILLS YOU'LL BUILD

- **Management** — Leading people & projects
- **Analysis** — Business & financial
- **Communication** — Persuasion & teamwork
- **Problem-solving** — Business decisions
- **Broad business literacy** — Across functions

## CAREERS & JOB TITLES

- **Management / operations roles** — Across industries
- **Business / financial analyst** — Analysis
- **Sales / marketing roles** — Revenue
- **Consultant** — Advisory
- **Operations manager** — Running teams (~$101,280)
- **Executive / GM** — With experience (~$122,090 group)

## EXPLORE FURTHER

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BUSINESS & ECONOMICS

# Accounting

## WHAT IT IS

Accounting is the study of recording, analyzing, and reporting financial information — the backbone of every business. Accountants track money, ensure compliance, and turn numbers into insight. It's one of the most stable, always-in-demand business fields.

## WHAT YOU'LL STUDY

- **Year 1–2** — Financial & managerial accounting, economics, statistics
- **Year 2–3** — Intermediate accounting, taxation, auditing, accounting systems
- **Year 3–4** — Advanced accounting, business law, and (toward the CPA) 150 credit hours

## CONCENTRATIONS & FOCUS AREAS

- **Public Accounting / Audit** — Firms & audit
- **Tax** — Taxation
- **Managerial / Corporate** — In-house accounting
- **Forensic Accounting** — Fraud & investigation
- **Financial Reporting** — Statements
- **Accounting Systems** — Technology

## PAY: MEDIAN, RANGE & TRAJECTORY

Per the U.S. Bureau of Labor Statistics, accountants and auditors had a median of $81,680 (May 2024), higher with the CPA and in finance/insurance. Controllers, managers, and CFOs earn substantially more.

## AT A GLANCE

| | |
|---|---|
| Field | **Business** |
| Also called | **The language of business** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Associate → Master's** |
| Credential | **CPA** |
| Outlook | **~5% (faster)** |

## SKILLS YOU'LL BUILD

- **Financial analysis** — Reading the numbers
- **Attention to detail** — Accuracy
- **Ethics** — Trust & compliance
- **Technical accounting** — GAAP & standards
- **Software** — Accounting systems

## CAREERS & JOB TITLES

- **Accountant / auditor** — The core role (~$81,680)
- **Tax professional** — Taxation
- **CPA / public accountant** — With the CPA
- **Controller / accounting manager** — With experience
- **Financial / cost analyst** — Analysis
- **CFO / finance leadership** — Senior

## EXPLORE FURTHER

Keep exploring:

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BUSINESS & ECONOMICS

# Finance

## WHAT IT IS

Finance is the study of money, investments, and how individuals and organizations manage capital — analyzing investments, managing risk, and shaping corporate financial strategy. It's a well-paid, quantitative business field.

## WHAT YOU'LL STUDY

- **Year 1–2** — Accounting, economics, statistics, and calculus
- **Year 2–3** — Corporate finance, investments, and financial markets
- **Year 3–4** — Valuation, risk management, financial modeling, and a concentration

## CONCENTRATIONS & FOCUS AREAS

- **Corporate Finance** — Company finances
- **Investments / Asset Management** — Markets
- **Investment Banking** — Deals & capital
- **Financial Planning** — Personal finance
- **Risk Management** — Managing risk
- **Fintech / Analytics** — Technology & data

## DEGREE LEVELS IT'S OFFERED AT

Offered across these levels — click a level to learn about it: A bachelor's is the standard entry; a master's (often an MBA) accelerates advancement into management and leadership.

## AT A GLANCE

| | |
|---|---|
| Field | **Business** |
| Focus | **Money & investment** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Associate → Doctoral** |
| Quantitative | **Yes** |
| Outlook | **~7% (much faster)** |

## SKILLS YOU'LL BUILD

- **Financial analysis** — Evaluating options
- **Modeling** — Valuation & forecasting
- **Quantitative skills** — Math & Excel
- **Decision-making** — Under uncertainty
- **Communication** — Explaining finance

## CAREERS & JOB TITLES

- **Financial analyst** — The core role (~$102,740)
- **Investment banker** — Deals & capital
- **Corporate finance associate** — Company finance
- **Financial advisor / planner** — Personal finance
- **Risk / credit analyst** — Risk
- **Financial manager** — With experience (~$156,100)

## EXPLORE FURTHER

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BUSINESS & ECONOMICS

# Marketing

## WHAT IT IS

Marketing is the study of understanding customers and communicating value — research, branding, advertising, digital marketing, and sales. It connects products and services with the people who need them, and is increasingly data- and digital-driven.

## WHAT YOU'LL STUDY

- **Year 1–2** — Business core, economics, statistics, and marketing principles
- **Year 2–3** — Consumer behavior, market research, branding, and digital marketing
- **Year 3–4** — Marketing analytics, strategy, and campaign projects

## CONCENTRATIONS & FOCUS AREAS

- **Digital / Social Marketing** — Online & social
- **Brand / Product Management** — Brands
- **Market Research / Analytics** — Data & insight
- **Advertising** — Campaigns
- **Content / Communications** — Messaging
- **Sales / Business Development** — Revenue

## DEGREE LEVELS IT'S OFFERED AT

Offered across these levels — click a level to learn about it: A bachelor's is the standard entry; a master's (often an MBA) accelerates advancement into management and leadership.

## AT A GLANCE

| | |
|---|---|
| Field | **Business** |
| Focus | **Understanding & reaching custo...** |
| Typical degree | **BS (4 yrs)** |
| Levels | **Associate → Master's** |
| Digital era | **In demand** |
| Outlook | **Faster than average** |

## SKILLS YOU'LL BUILD

- **Research & analytics** — Understanding markets
- **Creativity** — Campaigns & content
- **Digital marketing** — Online channels
- **Communication** — Persuasion
- **Data** — Marketing analytics

## CAREERS & JOB TITLES

- **Marketing specialist** — Entry roles
- **Market research analyst** — Insight (~$74,680)
- **Brand / product manager** — Managing products
- **Digital / social marketer** — Online
- **Content / communications** — Messaging
- **Marketing manager** — With experience (~$157,620)

## EXPLORE FURTHER

Keep exploring:

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BUSINESS & ECONOMICS

# Economics

## WHAT IT IS

Economics is the study of how people, businesses, and societies allocate scarce resources — analyzing markets, incentives, policy, and the forces that drive the economy. It blends social science with quantitative rigor and opens doors across business, finance, policy, and data.

## WHAT YOU'LL STUDY

- **Year 1–2** — Micro- and macroeconomics, calculus, statistics
- **Year 2–3** — Intermediate theory, econometrics, and math
- **Year 3–4** — Fields (labor, finance, development, behavioral) and a research project

## CONCENTRATIONS & FOCUS AREAS

- **Financial / Business Economics** — Markets & firms
- **Econometrics / Data** — Quantitative analysis
- **Public / Policy Economics** — Government & policy
- **Labor Economics** — Work & wages
- **International / Development** — Global economics
- **Behavioral Economics** — Decision-making

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Business / Social Science** |
| Focus | **How societies use resources** |
| Typical degree | **BA/BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Analytical & quantitative | **Yes** |
| Outlook | **Faster than average** |

## SKILLS YOU'LL BUILD

- **Analytical reasoning** — Rigorous thinking
- **Quantitative skills** — Econometrics & math
- **Modeling** — Understanding systems
- **Critical thinking** — Evaluating policy & markets
- **Data** — Increasingly central

## CAREERS & JOB TITLES

- **Economist** — Research & analysis (~$115,730)
- **Financial / data analyst** — Finance & data
- **Policy analyst** — Government & think tanks
- **Consultant** — Advisory
- **Business / market analyst** — Corporate
- **Researcher / professor** — With graduate study

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SECTION 05 OF 07

# Social Sciences

IN THIS SECTION


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- Sociology 57
- Criminal Justice 59
- Anthropology 61
- International Relations 63

SOCIAL SCIENCES

# Political Science

## WHAT IT IS

Political science is the study of government, politics, public policy, and political behavior — how power is organized and exercised, how laws and institutions work, and how people and nations make collective decisions. It's one of the most popular pre-law and public-service majors. Context on careers: the specific "scientist" occupation...

## WHAT YOU'LL STUDY

- **Core** — American government, comparative politics, international relations, political theory
- **Methods** — Research methods, statistics, and data analysis
- **Electives** — Public policy, law, political economy, specific regions or issues
- **Capstone** — A research thesis or seminar

## CONCENTRATIONS & FOCUS AREAS

- **American Politics** — U.S. government & institutions
- **International Relations** — Global politics
- **Comparative Politics** — Systems across countries
- **Political Theory** — Ideas & philosophy
- **Public Policy** — Analyzing & making policy
- **Pre-Law** — Law-school preparation

## AT A GLANCE

| | |
|---|---|
| Field | **Social Sciences** |
| Studies | **Government & politics** |
| Typical degree | **BA (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Feeds | **Law, government, policy** |
| Outlook | **Small occ.; broad degree** |

## SKILLS YOU'LL BUILD

- **Analytical writing** — Clear, persuasive argument
- **Research & analysis** — Evaluating evidence and data
- **Critical thinking** — Weighing complex issues
- **Communication** — Debate and presentation
- **Civic & global literacy** — Understanding institutions

## CAREERS & JOB TITLES

- **Lawyer / attorney** — Via law school (very common)
- **Government / public administration** — Agencies and legislatures
- **Policy analyst** — Think tanks, nonprofits, government
- **Political scientist / researcher** — With a master's/PhD
- **Campaign / political staff** — Politics and advocacy
- **Business, comms, or nonprofit roles** — Broad bachelor's paths

## EXPLORE FURTHER

Keep exploring:

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SOCIAL SCIENCES

# Sociology

## WHAT IT IS

Sociology is the study of society, social behavior, and the groups, institutions, and forces that shape human life — from families and communities to inequality, race, gender, and social change. It builds a deep understanding of how people and systems interact. Context on careers: the specific "scientist" occupation for this field is...

## WHAT YOU'LL STUDY

- **Core** — Sociological theory, social problems, social institutions
- **Methods** — Research methods and statistics (a real strength of the major)
- **Electives** — Race and ethnicity, gender, class/inequality, family, crime, organizations
- **Capstone** — A research project

## CONCENTRATIONS & FOCUS AREAS

- **Social Inequality** — Class, race, gender
- **Criminology / Deviance** — Crime & society
- **Family & Demography** — Population and family
- **Organizations & Work** — Institutions
- **Social Research / Data** — Quantitative sociology
- **Social Policy** — Applied sociology

## AT A GLANCE

| | |
|---|---|
| Field | **Social Sciences** |
| Studies | **Society & social behavior** |
| Typical degree | **BA (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Feeds | **Social services, research, HR** |
| Outlook | **Small occ.; broad degree** |

## SKILLS YOU'LL BUILD

- **Social research** — Study design and analysis
- **Data & statistics** — Quantitative reasoning
- **Critical thinking** — Understanding systems
- **Writing & communication** — Explaining findings
- **Cultural competence** — Working with diverse groups

## CAREERS & JOB TITLES

- **Social & community services** — Case management, nonprofits
- **Research / survey analyst** — Data-driven roles
- **Human resources** — People and organizations
- **Sociologist / researcher** — With a master's/PhD
- **Policy / program roles** — Government and nonprofits
- **Business, marketing, comms** — Broad bachelor's paths

## EXPLORE FURTHER

Keep exploring:

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SOCIAL SCIENCES

# Criminal Justice

## WHAT IT IS

Criminal justice is the study of the systems that maintain law and order — policing, courts, and corrections — plus crime, law, and public safety. It prepares graduates for careers across law enforcement, federal agencies, corrections, courts, and private security. Important: a criminal-justice degree does not by itself make you a sworn...

## WHAT YOU'LL STUDY

- **Core** — Introduction to criminal justice, policing, courts, corrections
- **Law & theory** — Criminal law, criminology, constitutional law
- **Applied** — Ethics, investigation, research methods, and a concentration

## CONCENTRATIONS & FOCUS AREAS

- **Law Enforcement** — Policing & investigation
- **Corrections** — Prisons & rehabilitation
- **Homeland Security** — Federal & security
- **Criminology** — Study of crime
- **Cybercrime / Digital Forensics** — Tech-enabled crime
- **Courts / Legal** — Justice administration

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Criminal Justice** |
| Focus | **Law, order & the justice syste…** |
| Typical degree | **AS/BA (4 yrs)** |
| Levels | **Associate → Master's** |
| Feeds | **Police, federal, corrections…** |
| Outlook | **Steady (police ~3%)** |

## SKILLS YOU'LL BUILD

- **Knowledge of the justice system** — Law and procedure
- **Investigation & analysis** — Evidence and cases
- **Ethics & judgment** — Under pressure
- **Communication** — Reports and testimony
- **Physical & interpersonal** — For sworn roles

## CAREERS & JOB TITLES

- **Police officer / deputy** — Local & state (via academy, ~$74,910)
- **Federal agent / investigator** — FBI, DEA, etc. (~$94,570)
- **Corrections / probation officer** — Corrections system
- **Homeland security / TSA** — Federal security
- **Private security / investigation** — Corporate
- **Court / legal support** — Administration

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SOCIAL SCIENCES

# Anthropology

## WHAT IT IS

Anthropology is the holistic study of humanity — past and present, across cultures and biology . Its four subfields (cultural, biological/physical, archaeology, and linguistic) together explore what it means to be human, from ancient societies to modern cultures. Context on careers: the specific "scientist" occupation for this field is...

## WHAT YOU'LL STUDY

- **Cultural anthropology** — Living cultures and ethnography
- **Biological/physical** — Human evolution and biology
- **Archaeology** — Past societies through material remains
- **Linguistic** — Language and culture
- **Methods** — Fieldwork, ethnography, and analysis

## CONCENTRATIONS & FOCUS AREAS

- **Cultural Anthropology** — Living cultures
- **Archaeology** — Past societies
- **Biological Anthropology** — Human evolution & biology
- **Linguistic Anthropology** — Language & culture
- **Applied / Business Anthropology** — UX, markets, orgs
- **Forensic Anthropology** — Human remains

## AT A GLANCE

| | |
|---|---|
| Field | **Social Sciences** |
| Studies | **Humanity & culture** |
| Typical degree | **BA/BS (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Feeds | **Research, UX, nonprofits, gov** |
| Outlook | **Small occ.; broad degree** |

## SKILLS YOU'LL BUILD

- **Ethnographic research** — Studying people in context
- **Cross-cultural understanding** — Working across cultures
- **Qualitative & field methods** — Interviews and observation
- **Analysis & synthesis** — Making sense of complexity
- **Communication** — Writing and presenting

## CAREERS & JOB TITLES

- **Cultural / applied anthropologist** — Research and consulting
- **Archaeologist** — Cultural resource management, museums
- **UX / design researcher** — Tech and business (growing)
- **Nonprofit / international development** — Global programs
- **Museum / heritage roles** — Curation and education
- **Government / policy research** — Agencies

## EXPLORE FURTHER

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SOCIAL SCIENCES

# International Relations

## WHAT IT IS

International relations & affairs (IR) studies how nations, organizations, and peoples interact across borders — diplomacy, security, trade, human rights, development, and global governance. It combines political science, economics, history, and often languages. Context on careers: the specific "scientist" occupation for this field is...

## WHAT YOU'LL STUDY

- **Core** — International politics, comparative politics, international economics
- **Context** — History, regional studies, and a foreign language (often required)
- **Focus areas** — Security, development, human rights, trade, diplomacy
- **Experience** — Study abroad and internships are highly valued

## CONCENTRATIONS & FOCUS AREAS

- **International Security** — Conflict & defense
- **International Development** — Global poverty & growth
- **Diplomacy & Foreign Policy** — Statecraft
- **International Economics / Trade** — Global markets
- **Human Rights** — Advocacy and law
- **Regional Studies** — Specific world regions

## AT A GLANCE

| | |
|---|---|
| Field | **Social Sciences** |
| Studies | **Global politics & affairs** |
| Typical degree | **BA (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Feeds | **Diplomacy, NGOs, business** |
| Outlook | **Broad, competitive** |

## SKILLS YOU'LL BUILD

- **Global & cross-cultural fluency** — Working internationally
- **Analytical writing** — Policy and analysis
- **Language skills** — Often a second language
- **Research & analysis** — Understanding global issues
- **Negotiation & communication** — Diplomacy skills

## CAREERS & JOB TITLES

- **Foreign service / diplomacy** — Government (competitive)
- **International NGO / development** — Global nonprofits
- **Policy / intelligence analyst** — Government and think tanks
- **International business / trade** — Global companies
- **Lawyer (international law)** — Via law school
- **Journalism / communications** — Global affairs

## EXPLORE FURTHER

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SECTION 06 OF 07

# Arts & Humanities

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ARTS & HUMANITIES

# English

## WHAT IT IS

English & literature is the study of language, literature, and writing — reading deeply, analyzing texts, and communicating with clarity and force. One of the classic liberal-arts majors, it builds the reading, writing, and critical-thinking skills that employers and graduate/professional schools value across countless fields. Where it...

## WHAT YOU'LL STUDY

- **Core** — Literary survey courses (British, American, world literature), literary analysis, critical theory
- **Writing** — Composition, rhetoric, and often creative or professional writing
- **Electives** — By period, genre, author, or theme; often a senior thesis

## CONCENTRATIONS & FOCUS AREAS

- **Literature** — Literary study & analysis
- **Creative Writing** — Fiction, poetry, nonfiction
- **Rhetoric & Composition** — Writing & argument
- **Professional / Technical Writing** — Applied writing
- **English Education** — Teaching English
- **Pre-Law** — Law-school preparation

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **English & Literature** |
| Focus | **Reading, writing & analysis** |
| Typical degree | **BA (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Popular pre-law | **Yes** |
| Outlook | **Broad; writing/editing steady** |

## SKILLS YOU'LL BUILD

- **Writing** — Clear, persuasive prose
- **Critical reading & analysis** — Interpreting texts
- **Argument & reasoning** — Building a case
- **Research** — Finding and using evidence
- **Communication** — Highly transferable

## CAREERS & JOB TITLES

- **Writer / editor** — Publishing, media, content (~$73,690–$75,020)
- **Content / communications roles** — Marketing & corporate
- **Teacher / professor** — With certification/graduate study
- **Lawyer** — Via law school (common path)
- **Technical writer** — Documentation (~$91,670)
- **Publishing, nonprofit, business** — Broad paths

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ARTS & HUMANITIES

# History

## WHAT IT IS

History is the study of the human past — events, people, societies, and change over time — and how we interpret evidence to understand it. It builds exceptional research, analysis, and writing skills, and a deep understanding of how the world came to be. Where it leads: this is a broad, analytical humanities degree. There isn't one job...

## WHAT YOU'LL STUDY

- **Surveys** — By region and era (US, European, world, and thematic history)
- **Methods** — Historical research, using primary sources, and historiography
- **Seminars** — Focused topics and a substantial research paper/thesis

## CONCENTRATIONS & FOCUS AREAS

- **US / American History** — National history
- **World / Global History** — Cross-cultural
- **European History** — Western tradition
- **Public History** — Museums & archives
- **Thematic (social, political, etc.)** — By theme
- **Pre-Law** — Law-school preparation

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **History** |
| Focus | **The human past** |
| Typical degree | **BA (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Popular pre-law | **Yes** |
| Outlook | **Broad; historian occ. small** |

## SKILLS YOU'LL BUILD

- **Research** — Finding and evaluating sources
- **Analysis** — Interpreting evidence
- **Writing** — Clear, argued prose
- **Critical thinking** — Weighing perspectives
- **Communication** — Explaining the past

## CAREERS & JOB TITLES

- **Teacher / professor** — With certification/graduate study
- **Lawyer** — Via law school (common)
- **Writer / researcher / editor** — Media & publishing
- **Archivist / museum / public history** — Cultural institutions
- **Government / analyst / policy** — Public sector
- **Business, nonprofit, comms** — Broad paths

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ARTS & HUMANITIES

# Philosophy

## WHAT IT IS

Philosophy is the study of fundamental questions — knowledge, ethics, logic, reality, and meaning . It trains rigorous reasoning, argument, and analysis at a very high level. Though it has no direct job title, philosophy majors are known for outstanding critical-thinking and standardized-test performance (among the highest LSAT/GRE...

## WHAT YOU'LL STUDY

- **Core** — Logic, ethics, epistemology, metaphysics
- **History** — Ancient, modern, and contemporary philosophy
- **Applied** — Areas like bioethics, philosophy of mind, political philosophy, or philosophy of science
- **Seminars** — Close reading and rigorous argumentative writing

## CONCENTRATIONS & FOCUS AREAS

- **Ethics** — Moral reasoning & applied ethics
- **Logic** — Formal reasoning
- **Political Philosophy** — Justice & society
- **Philosophy of Mind / Science** — Foundations
- **Bioethics** — Ethics in medicine
- **Pre-Law / Pre-Grad** — Preparation

## AT A GLANCE

| | |
|---|---|
| Field | **Philosophy** |
| Focus | **Reasoning, ethics & meaning** |
| Typical degree | **BA (4 yrs)** |
| Levels | **Bachelor's → Doctoral** |
| Top pre-law | **Yes (high LSAT/GRE)** |
| Outlook | **Broad; analytical** |

## SKILLS YOU'LL BUILD

- **Rigorous reasoning** — Analyzing arguments
- **Critical thinking** — At a high level
- **Clear writing** — Precise argument
- **Problem-solving** — Abstract and applied
- **Ethical judgment** — Weighing values

## CAREERS & JOB TITLES

- **Lawyer** — Via law school (a top feeder)
- **Business / consulting / tech** — Analytical roles
- **Policy / ethics / compliance** — Government & corporate
- **Writer / editor** — Media & publishing
- **Teacher / professor** — With graduate study
- **Nonprofit / analyst** — Broad paths

## EXPLORE FURTHER

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ARTS & HUMANITIES

# Graphic Design

## WHAT IT IS

Graphic design is the craft of visual communication — using type, image, color, and layout to convey ideas across branding, advertising, web, packaging, and digital media. It's the most employable of the visual-arts fields, blending creativity with commercial demand.

## WHAT YOU'LL STUDY

- **Foundation** — Design principles, typography, color theory, drawing
- **Core** — Layout, branding/identity, digital design, web/UX basics
- **Tools** — Adobe Creative Suite (Photoshop, Illustrator, InDesign) and prototyping
- **Capstone** — A professional portfolio — the key to getting hired

## CONCENTRATIONS & FOCUS AREAS

- **Branding & Identity** — Logos and brand systems
- **UX/UI & Web Design** — Digital products
- **Motion Graphics** — Animated design
- **Advertising / Marketing Design** — Campaigns
- **Publication / Editorial** — Layout & print
- **Packaging** — Product design

## EXPLORE FURTHER

Keep exploring:

## AT A GLANCE

| | |
|---|---|
| Field | **Visual & Performing Arts** |
| Focus | **Visual communication** |
| Typical degree | **BFA/BA (4 yrs)** |
| Levels | **Associate → Master's** |
| Most employable art field | **Yes** |
| Outlook | **Flat; steady openings** |

## SKILLS YOU'LL BUILD

- **Design software** — Adobe Creative Suite, Figma
- **Visual communication** — Type, layout, color
- **Creativity** — Original concepts
- **Attention to detail** — Polished execution
- **Client collaboration** — Interpreting briefs

## CAREERS & JOB TITLES

- **Graphic designer** — Agencies, in-house, freelance
- **UX/UI designer** — Tech & digital (higher-paid)
- **Art director** — With experience (~$114,850)
- **Brand / visual designer** — Marketing
- **Motion / web designer** — Digital media
- **Freelance / studio owner** — Self-employed

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ARTS & HUMANITIES

# Music

## WHAT IT IS

Music as a major develops performance, composition, and musicianship — or prepares music educators — across classical, jazz, commercial, and other traditions. It combines rigorous training with artistry, usually with audition-based admission . Honest reality: arts careers are competitive and income varies widely . Many artists are...

## WHAT YOU'LL STUDY

- **Applied** — Private lessons and performance on your instrument/voice
- **Core** — Music theory, aural skills, music history
- **Ensembles** — Orchestra, band, choir, or combos
- **Track** — Performance, composition, education, or music technology; a recital caps it

## CONCENTRATIONS & FOCUS AREAS

- **Performance** — Instrumental or vocal
- **Composition** — Writing music
- **Music Education** — Teaching (BM.Ed)
- **Jazz / Commercial** — Contemporary styles
- **Music Technology / Production** — Audio & recording
- **Music Therapy** — Clinical music (with training)

## AT A GLANCE

| | |
|---|---|
| Field | Visual & Performing Arts |
| Focus | Performance, composition, educ... |
| Typical degree | BM/BA (4 yrs) |
| Levels | Bachelor's → Doctoral |
| Admission | Often by audition |
| Outlook | Competitive |

## SKILLS YOU'LL BUILD

- **Musicianship** — Technique and artistry
- **Music theory** — Understanding structure
- **Discipline** — Years of practice
- **Collaboration** — Ensemble work
- **Adaptability** — Multiple styles/roles

## CAREERS & JOB TITLES

- **Performer / musician** — Ensembles, gigs (often freelance)
- **Music teacher / professor** — Schools (with certification/degree)
- **Composer / arranger** — Media, concert, commercial
- **Music producer / audio engineer** — Recording industry
- **Music director** — Ensembles, worship, theater
- **Music therapist** — With a graduate credential

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SECTION 07 OF 07

# Education, Design & More

IN THIS SECTION


Elementary Education 77

Secondary Education 79

Architecture 81

EDUCATION, DESIGN & MORE

# Elementary Education

## WHAT IT IS

Elementary education prepares you to teach young children (roughly kindergarten through grade 5 or 6) across all core subjects — reading, math, science, and social studies — building the foundation for a child's entire education. Licensure: teaching in public schools requires a state teaching license/certification — typically a...

## WHAT YOU'LL STUDY

- **Year 1–2** — General education, intro to education, child development, educational psychology
- **Year 2–3** — Methods courses (reading/literacy, math, science, social studies), classroom management, assessment
- **Year 3–4** — Special education/inclusion, technology in the classroom, and field observations
- **Final** — A full-semester student teaching placement

## CONCENTRATIONS & FOCUS AREAS

- **Reading / Literacy** — Foundational reading instruction
- **STEM / Math Education** — Elementary math and science
- **ESL / Bilingual** — English learners
- **Special Education** — Inclusive classrooms
- **Gifted & Talented** — Advanced learners
- **Educational Technology** — Tech-enabled teaching

## AT A GLANCE

| | |
|---|---|
| Field | **Education** |
| Teaches | **Grades K–5/6** |
| Typical degree | **BA/BS (4 yrs)** |
| Levels | **Associate → Doctoral** |
| Licensed | **Yes** |
| Outlook | **Flat; steady openings** |

## SKILLS YOU'LL BUILD

- **Instruction & lesson design** — Teaching across subjects
- **Classroom management** — Running a positive classroom
- **Assessment** — Measuring student learning
- **Communication** — With students and families
- **Patience & adaptability** — Meeting diverse needs

## CAREERS & JOB TITLES

- **Elementary school teacher** — K–5/6 classrooms
- **Reading / literacy specialist** — With added training
- **Special education teacher** — With certification
- **Curriculum / instructional roles** — With a master's
- **Assistant principal / principal** — With leadership study
- **Tutoring / education companies** — Alternative paths

## EXPLORE FURTHER

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EDUCATION, DESIGN & MORE

# Secondary Education

## WHAT IT IS

Secondary education prepares you to teach a specific subject to middle- and high-school students — English, math, science, history, a foreign language, or another field. You pair deep subject knowledge with teaching skill. Licensure: teaching in public schools requires a state teaching license/certification — typically a bachelor's in...

## WHAT YOU'LL STUDY

- **Subject content** — A major or strong concentration in your teaching field
- **Education core** — Adolescent development, educational psychology, methods for your subject
- **Practice** — Classroom management, assessment, technology, and field experience
- **Final** — A full-semester student teaching placement

## CONCENTRATIONS & FOCUS AREAS

- **Math / Science (STEM)** — High-demand subjects
- **English / Language Arts** — Reading and writing
- **Social Studies / History** — Humanities
- **Foreign Languages** — World languages
- **Special Education** — Inclusive/co-teaching
- **Career & Technical Ed** — Vocational subjects

## AT A GLANCE

| | |
|---|---|
| Field | **Education** |
| Teaches | **Grades 6/7–12** |
| Typical degree | **BA/BS + subject** |
| Levels | **Bachelor's → Doctoral** |
| Licensed | **Yes** |
| Outlook | **Flat; steady openings** |

## SKILLS YOU'LL BUILD

- **Subject expertise** — Deep content knowledge
- **Instruction & lesson design** — Teaching adolescents
- **Classroom management** — Older-student dynamics
- **Assessment** — Measuring learning
- **Mentoring** — Guiding students

## CAREERS & JOB TITLES

- **High school teacher** — Grades 9–12, by subject
- **Middle school teacher** — Grades 6–8
- **Department head** — Subject leadership
- **Instructional coordinator** — Curriculum (with a master's)
- **Assistant principal / principal** — With leadership study
- **Education companies / tutoring** — Alternative paths

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EDUCATION, DESIGN & MORE

# Architecture

## WHAT IT IS

Architecture is the art and science of designing buildings and spaces — balancing aesthetics, function, safety, sustainability, and cost. Architects shape how people live, work, and gather, translating ideas into structures through design, drawing, and technical knowledge. The path is long and licensed: becoming a registered architect...

## WHAT YOU'LL STUDY

- **Studio** — Iterative design projects — the core of every year
- **Technical** — Building structures, materials, environmental systems, construction
- **Context** — Architectural history, theory, and professional practice
- **Tools** — CAD, BIM (Revit), 3D modeling, and physical model-making

## CONCENTRATIONS & FOCUS AREAS

- **Building Design** — Residential, commercial, institutional
- **Sustainable / Green Design** — Energy & environment
- **Urban Design** — Cities & public space
- **Historic Preservation** — Restoring buildings
- **Interior Architecture** — Interior spaces
- **Landscape / Site** — Site & environment

## AT A GLANCE

| | |
|---|---|
| Field | **Architecture** |
| Focus | **Designing buildings & spaces** |
| Typical degree | **BArch (5 yrs)/MArch** |
| Levels | **Bachelor's → Master's** |
| Licensed | **Yes (NAAB + ARE)** |
| Outlook | **Faster than average** |

## SKILLS YOU'LL BUILD

- **Design thinking** — Creative problem-solving
- **Technical drawing & software** — CAD, BIM, 3D
- **Spatial reasoning** — 3D visualization
- **Building knowledge** — Structures & systems
- **Project & client skills** — Managing design

## CAREERS & JOB TITLES

- **Architect** — Firms & practice (~$93,310, licensed)
- **Architectural designer** — Pre-licensure roles
- **Sustainability / BIM specialist** — Technical focus
- **Urban / interior designer** — Related design
- **Construction / project roles** — Building industry
- **Firm principal / owner** — With experience

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