Exploratory Tracks, Affiliated Majors, and Possible Careers

Sciences, Technology & the Environment

Overview:

Although this track is very straightforward, there are a wide range of majors and careers represented. In addition to the technology arena through engineering and other majors, those drawn to this track are interested in the "hard" sciences, as well as the many majors involved with environmental management and protection. This track will appeal to those who have an interest in solving concrete problems facing humanity with sound scientific approaches and research-based practices.

Possible Characteristics:

(It's likely that not all of these characteristics will apply to you, but if a majority describe your skills and interests, this track may be a good match for you.)

Strong belief that applied science and technology provide many of the solutions to problems humans face but also present key opportunities for the advancement of safety, security, and higher quality of life

An interest in pursuing aspects of science and technology to satisfy curiosity, explain the mysteries of the natural world, and advance research

Interest in how natural resources provide the foundation for human existence and how environmental and agricultural advancements contribute to meeting basic needs

Very strong quantitative (math) and analytical skills and the ability to apply collected data to solve problems and advance research

Majors at UW	Corresponding Careers
Agricultural Communication	college/university faculty, extension agent, legislative aide/staff member
Agroecology	conservation scientist; soil and plant scientist; farm/ranch/agribusiness manager/supervisor; forestry, conservation, and agricultural

	instructor; crop manager, agricultural researcher, cooperative extension agent
Animal and Veterinary Science	veterinarian, livestock producer/specialist, livestock and range manager, agribusiness specialist, livestock industry communication specialist/spokesperson, veterinary researcher, food technology specialist
Architectural Engineering	architectural engineer, engineering technician, construction manager
Astronomy/Astrophysics	planetarium director, observatory technician, government laboratory technician, aerospace technician, museum interpreter/presenter, instructor, researcher
Biology	pharmaceutical sales representative, environmental scientist, occupational health and safety specialist, conservation scientist, research assistant, agricultural or food science technician, forensic investigator, medical service provider, pharmacy technician, radiologic technologist, phlebotomist, nutritionist/dietician, instructor, researcher
Botany	greenhouse/nursery manager; botanist for municipal, public, resort, professional sports, academic, or corporate properties; plant scientist specializing in plant breeding, crop production, plant tissue culture, genetic engineering, or textile production; education/outreach specialist, horticultural therapist, golf course superintendent, irrigation systems specialist, green industry consultant, pest management specialist, instructor, researcher
Chemical Engineering	chemical engineer in such fields as bulk chemical production, fine chemical production, consumer product development/testing, biotechnology, pharmaceutical industry, electronics, environmental safety and health, fuels and energy conversion, quality assurance
Chemistry	analytical chemist, healthcare scientist, clinical biochemist, forensic scientist, nanotechnologist, pharmacologist, research scientist, toxicologist, consumer product development (cosmetics, paints, plastics, food and beverage), environmental consultant
Civil Engineering	civil engineer specializing in structural engineering, urban planning, construction, environmental engineering, water resources, transportation, geotechnical working in various

	fields such as the construction industry, utilities, oil and gas, telecommunications, manufacturing, transportation (railroads, airports), road construction, Army Corps of Engineers (and other city, state, and federal government employers)
Electrical Engineering	electrical engineer specializing in automatic controls, bioelectronics, digital systems, electromagnetics, analog electronics, power and energy systems, and communications and signal process in fields such as aerospace, automotive, computer and electronics manufacturing, telecommunications, guidance control systems, defense, scientific instrument production, NASA, and federal government entities
Energy Resource Management: Air, Land, and Water	environmental compliance coordinator, environmental engineer, environmental health and safety analyst, environmental restoration planner, environmental services technician, project manager, regulatory analyst, water and range technician
Energy Systems Engineering	engineer for private and public entities in the energy fields of solar, electricity, nuclear, solar, and fossil fuels
Environment and Natural Resources	*This interdisciplinary degree can lead to a variety of careers:* environmental field coordinator, environmental consultant, park ranger, conservation officer, natural resource specialist, nature guide, wildlife management coordinator
Environmental Geology/Geohydrology	environmental geologist specializing in clean water and soil supplies and consulting with government and private organizations to monitor soil and water cleanliness during construction projects and industrial applications
Environmental System Science	*This interdisciplinary degree can lead to a variety of careers:* environmental scientist, environmental consultant, park ranger, conservation officer, natural resource specialist, nature guide, wildlife management coordinator
Geography	cartographer, map archivist/restorer, environmental consultant, town/city planner, geographical information systems officer, conservation officer, recycling officer, landscape architect, instructor
Geology	engineering geologist, geochemist, geophysicist, seismologist, hydrogeologist, drilling engineer, environmental scientist/consultant, minerals surveyor, sustainability consultant

Geology and Earth Science	environmental consultant, groundwater specialist, mining or marine engineer, environmental scientist/consultant, marine geologist, paleontologist, petroleum geologist, geochemist, mapping and exploration specialist, oceanographer
Mechanical Engineering	mechanical engineer specializing in machine design, system design, manufacturing and production, energy conversion, energy resources management, transportation and environmental impact, and materials and structures in such fields as automotive, aerospace, electronics, chemical products, petroleum, textiles, heating and air conditioning systems, NASA, utilities, national laboratories, and federal government entities
Microbiology	biomedical scientist, biotechnologist, clinical research associate, defense (anti-bioterrism) scientist, food technologist (food production / food preservation), agricultural microbiologist, aeromicrobiologist, exomicrobiologist, ecologist, mycobiologist, parasitologist, virologist, immunologist, nanotechnologist, pharmacologist, research scientist (life sciences), brewmaster, water quality scientist, forensic scientist, environmental scientist, bioremediation specialist, medical doctor, optometrist, dentist, dermatologist, veterinarian, professor, lecturer, secondary educator, science writer
Molecular Biology	laboratory technician, research specialist, molecular biologist, cellular biologist,
Petroleum Engineering	researcher and developer, system designer, reservoir engineer, drilling engineer, production engineer, subsurface engineer, completion engineer, mining support, oil and gas extractor, inspector, maintenance engineer
Physiology	clinical research associate, community health advocate, health educator, laboratory technician, personal trainer, wellness coach, physical/occupational therapist This major may lead to advanced degrees for careers in the health field, such as physician, dentist, surgical nurse, pharmacist, or physical/occupational therapist
Physics	accelerator operator, applications engineer, data analyst, lab technician, laser engineer, weather

	forecaster, journalist, solar energy physicist, astrophysicist, material scientist, structural engineer, radar project manager, acoustic scientist
Rangeland Ecology and Watershed Management	specialist, manager, or technician in the fields of livestock management, wildlife habitat management, ecology, reclamation and restoration ecology, watershed management, or hydrology
Secondary Education: Agricultural Education	agriculture teacher in secondary or post-secondary education, FFA advisor, community/extension agency instructor/director
Secondary Education: Science Education	biology teacher, chemistry teacher, earth science teacher, physics teacher
Statistics	clinical trial analyst, quality control specialist, operations researcher, survey and methodology designer/analyst, governmental data analyst, biomedical researcher, biostatistician, pharmacologist, product reliability tester, risk assessor, asset and liability manager, financial planner, market researcher, statistical computing specialist, sports statistician, corporate and consumer credit analyst, trust manager, financial analyst, mergers and acquisitions specialist, insurance underwriter, actuary, instructor, researcher
Wildlife and Fisheries Biology and Management	specialist, administrator/planner, or technician in the fields of wildlife and fisheries management for state, federal, or private agencies; researcher in disease and range management
Zoology	laboratory technician, wildlife biologist, veterinary assistant, veterinarian, marine scientist, nature conservation officer, research scientist, animal care technician, fish and wildlife technician, museum zoologist, naturalist, park ranger