Faculty of SCIENCE
UR Learning and Career Opportunities

What programs and specializations are offered?
There are many programs and options for completing a four-year Bachelor of Science (BSC). Please visit the Faculty of Science (website) for details, including the combined, pre-professional, joint and certificate programs. Graduate programs also are offered in specialized fields.

What careers are related to a Science degree?
Review examples of learning and career opportunities for fields of interest.

Science Programs
(Ctrl and Click to follow link)

<table>
<thead>
<tr>
<th>Biology</th>
<th>Geography</th>
<th>Physics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry and Biochemistry</td>
<td>Geology</td>
<td>Psychology</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Mathematics and Statistics</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>(includes Actuarial Science)</td>
<td></td>
</tr>
</tbody>
</table>

Joint Programs
(Ctrl and Click to follow link)

<table>
<thead>
<tr>
<th>Chemical Technology (BSc)</th>
<th>Medical Laboratory Science (BMLS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Biology (BSc)</td>
<td>Medical Imaging (BMI)</td>
</tr>
<tr>
<td>(Programs offered in collaboration with Saskatchewan Polytechnic and other institutions.)</td>
<td></td>
</tr>
</tbody>
</table>

Can I complete Transfer and Pre-Professional Programs at the U of R?
Yes, students can complete the courses required by other institutions for admission to specialized transfer and professional programs including:

<table>
<thead>
<tr>
<th>Agriculture and Bioresources</th>
<th>Medicine</th>
<th>Optometry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chiropractic</td>
<td>Nutrition</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>Dentistry</td>
<td>Occupational Therapy</td>
<td>Veterinary Medicine</td>
</tr>
<tr>
<td>Law</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For details, please visit Pre-Professional Programs (website).

What is the Co-operative Education Program?
Co-op Education allows students to alternate semesters of taking courses with semesters of paid work experience (full-time). To learn more, visit Co-operative Education and Internships (website).

What is the Internship Program in Actuarial Science?
BSc students in Actuarial Science have the option of completing a one-year paid Internship of work experience (full-time) in the field. Visit Co-operative Education and Internships (website) for details.

What are the requirements for admission to the Faculty of Science?
Review Admission Requirements for the Faculty of Science. Note that admission to a Joint Program requires the completion of prerequisite studies.
BIOLOGY offers opportunities to develop...

Knowledge

- Evolution, structure, function and interaction of living organisms at the molecular, cellular, organismal, population and ecosystem levels
- Classification of diverse living forms
- Plant and animal biology
- Human biology
- Cell and molecular biology
- Microbiology
- Genetics and DNA analysis
- Physiology
- Aquatic chemistry and ecology
- Population and community ecology
- Environmental biology
- Impacts of environmental change
- Field and lab research methodologies
- Biometric applications for experiment design and data analysis

Skills and Abilities

- Apply biological facts, concepts and principles
- Design experiments and projects
- Conduct field and lab research
- Analyze and interpret data
- Apply statistical techniques
- Assess and solve complex problems
- Think analytically and critically
- Write clear and accurate technical reports

A career in various fields and occupations, for example...

- Biochemist (e.g., manufacturing & pharmaceutical industries)
- Biogeographer
- Biologist
- Biostatistician
- Biotechnology
- Ecologist (e.g., fisheries, forestry, wildlife)
- Educator (e.g., museums, parks, zoos)
- Environmental Impact Assessor
- Food Processing
- Forensics
- Gene Technologist
- Health Care Consultant
- Health Professional
- (e.g., dentist, nutritionist, ophthalmologist, pharmacist, physician, veterinarian)
- Immunologist
- Molecular Biologist
- Natural Resources
- Pathology Assistant
- Pharmacologist
- Plant Physiologist
- Pollution Control
- Quality Assurance Officer
- Research Assistant
- Science Journalism
- Science Policy Analyst
- Teacher
- Toxicologist

Advanced education and specialized qualifications are required for some fields and occupations.
(e.g., completion of a professional program, graduate degree and/or other qualification)

Visit the Department of Biology for more program and career information.

Return to top of the UR Career Guide – Faculty of Science
CHEMISTRY and BIOCHEMISTRY offer opportunities to develop...

Knowledge
- Nature and behaviour of elements, compounds and chemical reactions
- Analytical, computational, inorganic, organic, physical and theoretical chemistry
- Metabolism, nutritional and regulatory chemistry, enzymes, nucleic acids, biophysics and molecular genetics (biochemistry)
- Synthesis of new compounds or materials
- Detection and measurement of chemicals
- Quality control
- Environmental protection
- Health and safety practices
- Scientific research methodology and data analysis

Skills and Abilities
- Plan, set up and conduct chemical analyses (e.g., soil, hormones, water)
- Design, synthesize and test new chemical products—for example, drugs, foods, fuels, paints, new materials, nanochemicals)
- Measure pollutants in the air, water and soil
- Examine evidence and DNA
- Assess and solve complex problems
- Think logically, creatively and independently
- Interpret and write detailed technical reports
- Observe health and safety practices
- Apply computer skills and statistical techniques

A career in various fields and occupations, for example...

<table>
<thead>
<tr>
<th>Analytical Chemist</th>
<th>Laboratory Analyst</th>
<th>Pharmacologist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemist (e.g., manufacturing &amp; pharmaceutical industries)</td>
<td>Health/Safety Inspector</td>
<td>Plant Physiologist</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>Health Professional (e.g., dentist, nutritionist, pharmacist, physician)</td>
<td>Pollution Control</td>
</tr>
<tr>
<td>Chemical Technologist</td>
<td>Immunologist</td>
<td>Professor</td>
</tr>
<tr>
<td>Clinical Chemist</td>
<td>Industrial Chemist (e.g., agriculture, cosmetics, forestry, petroleum, plastics)</td>
<td>Research Assistant</td>
</tr>
<tr>
<td>Environmental Chemist</td>
<td>Medical Lab Technologist</td>
<td>Research Chemist</td>
</tr>
<tr>
<td>Food Scientist</td>
<td>Pharmaceutical Chemist</td>
<td>Science Writer</td>
</tr>
<tr>
<td>Forensics</td>
<td>Pathology Assistant</td>
<td>Teacher</td>
</tr>
<tr>
<td>Gene Technologist</td>
<td></td>
<td>Toxicologist</td>
</tr>
</tbody>
</table>

Advanced education and specialized qualifications are required for some fields and occupations.
(e.g., completion of a professional program, graduate degree and/or other qualification)

Visit the Department of Chemistry & Biochemistry for more program and career information.

Return to top of the UR Career Guide – Faculty of Science
COMPUTER SCIENCE offers opportunities to develop...

Knowledge
• Programming language and problem solving
• Operating systems and networks
• Basic logic and circuit design
• Computer architecture
• Software design and development
• Human-computer interaction and design
• Multimedia systems, including graphics, video, audio, animation, and image processing
• Types, sources and uses of data in organizations
• Designing new techniques for data processing and interpretation
• Database and information retrieval
• Artificial intelligence
• Numerical analysis

Skills and Abilities
• Develop and implement software projects
• Analyze and problem solve in various programming languages
• Design human-computer interfaces
• Define and solve problems
• Think analytically and creatively

A career in various fields and occupations, for example...

<table>
<thead>
<tr>
<th>Analyst</th>
<th>Multimedia Designer</th>
<th>Software Developer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artificial Intelligence Researcher</td>
<td>Network Manager</td>
<td>Software Project Manager</td>
</tr>
<tr>
<td>Computer Games Designer</td>
<td>Programmer Analyst</td>
<td>Software Security Analyst</td>
</tr>
<tr>
<td>Computer Graphics Developer</td>
<td>Quality Control Specialist</td>
<td>Systems Administrator</td>
</tr>
<tr>
<td>Database Administrator</td>
<td>Research Assistant</td>
<td>Systems Analyst</td>
</tr>
<tr>
<td>Information Technologist</td>
<td>Scientific Programmer</td>
<td>Technical Support</td>
</tr>
<tr>
<td>IT Consultant</td>
<td>Software Designer</td>
<td>Website Designer</td>
</tr>
<tr>
<td>Management Trainee</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Advanced education and specialized qualifications are required for some fields and occupations.
(e.g., completion of a professional program, graduate degree and/or other qualification)

Visit the Department of Computer Science for more program and career information.
ECONOMICS offers opportunities to develop...

Knowledge
- Production, distribution and consumption of goods and services
- Development of economic policy
- Regional, national and international economies
- Currency, banking and financial markets
- Historical analyses of economic events (e.g., agriculture crises, trade disputes, war)
- Application of research methods, statistical tools and information technology
- Economic analysis of complex societal issues—including consumer and corporate behaviour, crime, health care, inflation, international development, natural resource management, public education, social assistance, taxation, unemployment, urban planning and wages

Skills and Abilities
- Integrate theoretical and quantitative analyses
- Monitor and forecast economic trends
- Collect and analyze data using statistical techniques
- Evaluate and debate economic arguments
- Analyze policy and propose recommendations
- Think analytically and logically
- Write well-organized detailed reports

A career in various fields and occupations, for example...

<table>
<thead>
<tr>
<th>Account Manager</th>
<th>Fiscal Policy Analyst</th>
<th>Portfolio Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuary</td>
<td>Foreign Exchange Trader</td>
<td>Purchasing Agent</td>
</tr>
<tr>
<td>Advisor (e.g., agriculture, finance,</td>
<td>International Trade Advisor</td>
<td>Quantitative Analyst</td>
</tr>
<tr>
<td>labour, transportation)</td>
<td>Investment Analyst</td>
<td>Real Estate</td>
</tr>
<tr>
<td>Assets Management</td>
<td>Labour Relations Negotiator</td>
<td>Research Analyst</td>
</tr>
<tr>
<td>Bank Economist</td>
<td>Lobbyist</td>
<td>Risk &amp; Insurance</td>
</tr>
<tr>
<td>Business Analyst</td>
<td>Market Analyst</td>
<td>Statistics Canada Analyst</td>
</tr>
<tr>
<td>Crown Corporation Executive</td>
<td>Merchandiser</td>
<td>Stockbroker</td>
</tr>
<tr>
<td>Economic Development</td>
<td>Mutual Fund Manager</td>
<td>Trader (e.g., bank,</td>
</tr>
<tr>
<td>Economist (e.g., government, non-profit,</td>
<td>Natural Resource Planner</td>
<td>currency, energy)</td>
</tr>
<tr>
<td>private sectors)</td>
<td>Policy Analyst (e.g., business,</td>
<td>Urban Planning</td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>environment, finance, health)</td>
<td></td>
</tr>
<tr>
<td>Financial Manager</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Advanced education and specialized qualifications are required for some fields and occupations.
(e.g., completion of a professional program, graduate degree and/or other qualification)

Visit the Department of Economics for more program and career information.

Return to top of the UR Career Guide – Faculty of Science
GEOGRAPHY offers opportunities to develop...

Knowledge
- The earth’s physical features, resources and climate (e.g., landforms, water, storms)
- Interactions between humans and the natural environment
- Geographic analysis of culture, economic development, gender, history, politics, recreation and tourism
- Demography, and rural and urban geography
- Distribution of plants and animals (biogeography)
- Cartography
- Remote sensing and spatial data analysis using geographic information systems (GIS)
- Fieldwork methods, data collection and statistical analysis

Skills and Abilities
- Conduct environmental assessments
- Manage resources and develop policy
- Use computer applications for spatial analysis
- Apply statistical techniques
- Develop graphical presentations of data and concepts
- Think analytically
- Write well-organized detailed reports

A career in various fields and occupations, for example...

- Air Photo Interpreter
- Business Development
- Cartographer
- Climatologist
- Conservationist
- Ecologist
- Economic Development
- Ecotourism
- Environmental Law
- Environmental Technologist
- Geomorphologist
- GIS Technician/Analyst
- Heritage Planner
- Industry Development Planner
- Land Surveyor
- Marketing Analyst
- Parks Planner
- Photogrammetric Technician
- Regional Development
- Research Analyst
- Resource Economist
- Resource Planner
- Teacher
- Transportation Planner
- Urban Planning
- Water Use Analyst

Advanced education and specialized qualifications are required for some fields and occupations. (e.g., completion of a professional program, graduate degree and/or other qualification)

Visit the Department of Geography and Environmental Studies for more program and career information.

Return to top of the UR Career Guide – Faculty of Science
GEOLOGY offers opportunities to develop...

Knowledge
- Composition, structure and natural processes of the earth and other planets
- Mineralogy and petrology (e.g., igneous rocks)
- Geological history of Earth
- Evolution of life
- Characteristics and habitats of fossil animals and plants
- Understanding past and present major geological global events (e.g., tsunamis, earthquakes, volcanoes)
- Analysis of sedimentary deposits and geologic time
- Exploration and extraction of natural resources (e.g., ground water, petroleum & metals)
- Environmental contamination and clean up
- Fundamental scientific concepts
- Fieldwork techniques and geologic mapping

Skills and Abilities
- Interpret data about the earth
- Describe earth materials in thin section, hand specimen, outcrop and core
- Analyze complex geological and environmental problems (e.g., subsurface geology, climate change)
- Apply fundamental scientific concepts
- Identify the location of natural resources (e.g., petroleum)
- Conduct scientific field and lab research
- Construct models of geologic events and processes
- Produce detailed geological maps, cross-sections and reports
- Think analytically and work independently

A career in various fields and occupations, for example...

- Cartographer
- Economic Geologist
- Environmental Consultant
- Environmental Law
- Exploration Geologist
- Field Geologist (e.g., mining, petroleum, water resources)
- Geochemist
- Geological Consultant
- Geological Technician
- Geophysical Technologist
- Geophysicist
- Glacial Geologist
- Hydrogeologist
- Hydrologist
- Metallurgist
- Mineralogist
- Museum Curator
- Parks & Natural Resources
- Palaeontologist
- Petroleum Geologist
- Petrologist
- Pollution Control
- Pollution Remediation
- Prospector
- Resource Analyst (e.g., oil, ore, water)
- Researcher
- Resource Analyst
- Sedimentologist
- Seismologists
- Structural Geologist
- Teacher
- Technical Writer
- Volcanologist
- Waste Management

Advanced education and specialized qualifications are required for some fields and occupations.
(e.g., completion of a professional program, graduate degree and/or other qualification)

Visit the Department of Geology for more program and career information.
MATHEMATICS and STATISTICS offer opportunities to develop...

Knowledge
- Pure mathematics (e.g., algebra, calculus, geometry, number theory, topology)
- Mathematical applications for assessing and solving “real” problems (e.g., employment trends)
- Statistical methods (e.g., sampling techniques) and data analysis
- Actuarial mathematics, statistics and risk theories in the design of insurance, pension and other programs
- Statistical software and computing

Skills and Abilities
- Analyze the structure of proof
- Deduce theorems and construct mathematical models
- Apply quantitative knowledge and reasoning to theoretical and applied sciences (e.g., population biology, computer graphics, internet security)
- Apply statistical methods to survey development and analysis
- Utilize statistical software
- Think logically and analytically

A career in various fields and occupations, for example...

<table>
<thead>
<tr>
<th>Account Manager</th>
<th>Curriculum Developer</th>
<th>Materials Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuary (visit Actuarial Science)</td>
<td>Data Analyst</td>
<td>Operations Research</td>
</tr>
<tr>
<td>Applied Mathematician (various fields including finance, health, marketing, manufacturing, mining, science)</td>
<td>Economist</td>
<td>Purchasing Agent (e.g., construction, hospitals, government, schools)</td>
</tr>
<tr>
<td>Biostatistician</td>
<td>Epidemiology</td>
<td>Pure Research</td>
</tr>
<tr>
<td>Budget Analyst</td>
<td>Financial Analyst</td>
<td>Retail Buyer</td>
</tr>
<tr>
<td>Buyer (e.g., industry, institutions, retail)</td>
<td>Industry Researcher</td>
<td>Risk Assessment</td>
</tr>
<tr>
<td>Clinical Data Coordinator</td>
<td>Information Technology</td>
<td>Statistician (e.g., law, government, industry)</td>
</tr>
<tr>
<td>Computer Scientist</td>
<td>Internet Researcher</td>
<td>Teacher/Professor</td>
</tr>
<tr>
<td>Contracts Specialist</td>
<td>Investment Analyst</td>
<td></td>
</tr>
<tr>
<td>Cryptologist</td>
<td>Market Analyst (e.g., advertising, oil, hospitality)</td>
<td></td>
</tr>
</tbody>
</table>

Advanced education and specialized qualifications are required for some fields and occupations. (e.g., completion of a professional program, graduate degree and/or other qualification)

Visit the Department of Mathematics and Statistics for more program and career information.

Return to top of the UR Career Guide – Faculty of Science
PHYSICS offers opportunities to develop...

Knowledge
- Properties and behaviour of matter and energy
- Origin, evolution and structure of the universe
- Fundamental laws of nature
- Mechanics, waves and optics
- Electricity and magnetism
- Heat and thermodynamics
- Health physics
- Atomic and nuclear physics
- Quantum mechanics and relativity (e.g., gravitation, black holes and cosmology)
- Solid state physics
- Research methods and data analysis using specialized electronic and computer equipment

Skills and Abilities
- Apply principles of physics and mathematics to understand and solve problems in different fields (e.g., aerospace, health, mining, technology)
- Design and perform experiments with specialized equipment (e.g., lasers and spectrometers)
- Think analytically and creatively
- Write precise technical reports

A career in various fields and occupations, for example...

- Aeronautics & Space Industries (e.g., flight simulator)
- Applied Mathematics (e.g., data analysis: business, finance, health)
- Astronomer
- Astrophysicist
- Biophysics (e.g., biotechnology, environment, pharmaceuticals)
- Computers/Information Technology (e.g., analyst, programmer)
- Design Development (e.g., buildings, electronics, TV, vehicles)
- Geophysicist (e.g., exploration, mining, petroleum, water, weather)
- Health Physicist (e.g., radiation safety in hospitals, labs, mines, reactors)
- Industrial Physicist (e.g., computer simulation, instrumentation, film)
- Management/Administration
- Medical Physicist (e.g., radiation therapy, diagnostic imaging)
- Laser Technician
- Meteorology
- Nanotechnology (e.g., microchips, metallurgy)
- National Defence Physicist
- Planetariums
- Quality Assurance Research
- Remote Sensing
- Science Museums
- Science Writer
- Synchrotron Research
- Telecommunications
- Teacher/Professor
- X-Ray Crystallographer

Advanced education and specialized qualifications are required for some fields and occupations.
(e.g., completion of a professional program, graduate degree and/or other qualification)

Visit the Department of Physics for more program and career information.

Return to top of the UR Career Guide – Faculty of Science
PSYCHOLOGY offers opportunities to develop...

Knowledge
- Normal and disordered patterns of mental and behavioural functioning
- Natural science of psychology, including the brain and behaviour, perception, learning, memory, cognition, motivation and emotion
- Social science of psychology, including adjustment, disorders, development, personality and influence of the social environment
- Structure and function of the nervous system
- Brain mechanisms and related theories of influence normal and abnormal behaviour
- Human information processing, including theory and research on thought, skills, problem-solving and expertise
- Quantitative and qualitative research methods (e.g., surveys and interviews) and statistical analysis

Skills and Abilities
- Understand individual and group behaviour
- Develop plans for enhancing quality of life and solving human problems
- Analyze complex problems from multiple perspectives
- Conduct research with understanding of ethical issues and cultural sensitivity
- Perform statistical analyses (descriptive and inferential)
- Learn independently and think critically
- Write clear and concise papers and reports

A career in various fields and occupations, for example...

<table>
<thead>
<tr>
<th>Activity Coordinator</th>
<th>Disability Services</th>
<th>Parole/Probation Officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>(e.g., care home, youth centre)</td>
<td>Educator/Facilitator</td>
<td>Post-Secondary Teaching</td>
</tr>
<tr>
<td>Addictions/Withdrawal Management</td>
<td>Ergonomist</td>
<td>Psychometrist</td>
</tr>
<tr>
<td>Autism Services</td>
<td>Family Service Worker</td>
<td>Psychologist (various specializations)</td>
</tr>
<tr>
<td>Behavioural Therapy (e.g., Analyst, Associate, Instructor)</td>
<td>Forensic Psychology</td>
<td>Public Relations</td>
</tr>
<tr>
<td>Case Manager</td>
<td>Group Home Coordinator</td>
<td>Rehabilitation Services</td>
</tr>
<tr>
<td>Child Psychology</td>
<td>Human Resources (e.g., Development)</td>
<td>Manager, Therapist)</td>
</tr>
<tr>
<td>Child/Youth Care Worker</td>
<td>Lab Coordinator</td>
<td>Research Analyst</td>
</tr>
<tr>
<td>Client Care Counsellor</td>
<td>Learning &amp; Development Specialist</td>
<td>Residential Counsellor</td>
</tr>
<tr>
<td>Client Health Services Coordinator</td>
<td>Leisure Services</td>
<td>Research Assistant</td>
</tr>
<tr>
<td>Clinical Therapist/Psychologist</td>
<td>Mediation</td>
<td>Social Services</td>
</tr>
<tr>
<td>Comparative Psychologist</td>
<td>Neropsychology</td>
<td>Therapist</td>
</tr>
<tr>
<td>Community Development</td>
<td>Non-Profit Organizations (e.g., Program Coordinator, Support</td>
<td>Training Consultant</td>
</tr>
<tr>
<td>Community Prevention Worker</td>
<td>Worker, Volunteer Coordinator</td>
<td>Vocational Rehabilitation</td>
</tr>
<tr>
<td>Counsellor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crisis Worker</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Advanced education and specialized qualifications are required for some fields and occupations.
(e.g., completion of a professional program, graduate degree and/or other qualification)

Visit the Department of Psychology for more program and career information.
Joint Programs
Faculty of Science
Saskatchewan Polytechnic and Other Institutions

CHEMICAL TECHNOLOGY offers opportunities to develop...

Knowledge
- Advanced analytical, organic, and inorganic chemistry
- Analytical instrumentation
- Chemical engineering
- Quality assurance testing
- Chemical plant operation
- Health and safety
- Chemical research and development

Skills and Abilities
- Plan, set up and conduct chemical analysis
- Conduct experiments and develop chemical products
- Apply safety practices
- Logical and innovative thinking
- Write technical reports

A career in various fields and occupations, for example...

<table>
<thead>
<tr>
<th>Chemical Technologist (CT)</th>
<th>Related positions in various fields including:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Inspector</td>
<td>• Chemical production</td>
</tr>
<tr>
<td>Instructor</td>
<td>• Commercial and industrial laboratories</td>
</tr>
<tr>
<td>Laboratory Analyst</td>
<td>• Environmental protection</td>
</tr>
<tr>
<td>Laboratory Technologist</td>
<td>• Fine chemicals manufacturing</td>
</tr>
<tr>
<td>Process Operator</td>
<td>• Industrial chemicals (e.g., paints, plastics, soaps)</td>
</tr>
<tr>
<td>Research Assistant</td>
<td>• Mining</td>
</tr>
<tr>
<td>Sales Manager</td>
<td>• Primary industries (e.g., petroleum, mining, pulp and paper)</td>
</tr>
<tr>
<td></td>
<td>• Research (e.g., agriculture and food, biotechnology)</td>
</tr>
<tr>
<td></td>
<td>• Synchrotron research</td>
</tr>
<tr>
<td></td>
<td>• Technical sales</td>
</tr>
</tbody>
</table>

Advanced education and specialized qualifications are required for some fields and occupations.
(e.g., completion of a professional program, graduate degree and/or other qualification)

For prerequisite and program details, visit the [Department of Chemistry and Biochemistry](http://www.regina.ca/chemistry/).

Return to top of the UR Career Guide – Faculty of Science
ENVIRONMENTAL BIOLOGY offers opportunities to develop...

Knowledge
- Structure, physiology, ecology, evolution and reproduction of diverse life forms
- Genetics
- Human interaction with the natural environment
- Foundations of contemporary environmental issues
- Management of fish, wildlife, forestry and parks
- Mapping and remote sensing
- Research design and statistical analysis

Skills and Abilities
- Monitor, assess and manage the use of natural resources
- Apply mapping and remote sensing techniques
- Conduct research
- Think analytically and critically
- Write clear and well-organized reports

A career in various fields and occupations, for example...

<table>
<thead>
<tr>
<th>Band Manager</th>
<th>Related positions in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry-Level Supervisor</td>
<td>Fisheries</td>
</tr>
<tr>
<td>Environmental Consultant</td>
<td>Forestry</td>
</tr>
<tr>
<td>Research Assistant</td>
<td>Wildlife</td>
</tr>
<tr>
<td>Technical Specialist (e.g.,</td>
<td>Park areas</td>
</tr>
<tr>
<td>wildlife, fisheries, forestry)</td>
<td>Computer resource technology</td>
</tr>
<tr>
<td></td>
<td>Parks management</td>
</tr>
</tbody>
</table>

Advanced education and specialized qualifications are required for some fields and occupations.
(e.g., completion of a professional program, graduate degree and/or other qualification)

For prerequisite and program details, visit the Department of Biology.

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MEDICAL LABORATORY SCIENCE offers opportunities to develop...

Knowledge
- Scientific, technical and medical principles of performing and evaluating medical laboratory tests
- Cell biology, anatomy and physiology
- Transfusions and anemias
- Metabolism, enzymes and nucleic acids
- Biochemical compounds (e.g., proteins, steroids, vitamins)
- Synthesis of organic compounds
- Genetics and DNA technology/ genetic engineering
- Infection control and safety
- Research methodologies in health care
- Biometrics and statistics
- Indian perspectives on health
- Organizational behaviour (e.g., teams)
- Professional communication (oral and written)

Skills and Abilities
- Perform lab procedures for analytical testing in clinical chemistry, hematology and transfusion labs, as well as processing in histotechnology labs
- Use diagnostic techniques to identify nucleic acid sequences
- Apply procedures for investigating biochemical compounds (e.g., proteins, steroids, vitamins)
- Identify and interpret microorganisms in body sites
- Apply research methods and techniques; write concise technical reports

A career in various fields and occupations, for example...
- Environmental Inspector
- General Duty Technologist
- Laboratory Technologist
- Medical Laboratory Technologist (MLT)
- Process Operator
- Research Assistant
- Sales Manager

Related positions in medical laboratories in hospitals, medical clinics, and industries including:
- Environmental protection
- Research (e.g., agriculture and food, biotechnology, pharmaceutical)

Advanced education and specialized qualifications are required for some fields and occupations.
(e.g., completion of a professional program, graduate degree and/or other qualification)

For prerequisite and program details, visit the Faculty of Science.
MEDICAL IMAGING offers opportunities to develop...

**Knowledge**
- Anatomy
- Physiology
- Pathology
- Patient care
- Radiobiology
- Health and safety
- Nature and behaviour of matter and energy
- Analytical and logical thinking

**Skills and Abilities**
- Apply radiological and radiographic techniques
- Operate X-ray equipment
- Conduct diagnostic medical imaging examinations
- Analyze data
- Write technical reports

**A career, for example...**

<table>
<thead>
<tr>
<th>Medical Radiologic Technologist (MRT)</th>
<th>Related positions in:</th>
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</thead>
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<tr>
<td>Research Assistant</td>
<td>Hospitals</td>
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<td>Clinical Instructor</td>
<td>Medical clinics</td>
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<td></td>
<td>Veterinary clinics</td>
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<td>Computer tomography</td>
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<td>Mammography</td>
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<td>Specialized radiography</td>
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</table>

**Advanced education and specialized qualifications are required for some fields and occupations.**
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For prerequisite and program details, visit the [Faculty of Science](#).

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