CAREER PATHFINDERS

APPLIED COMPUTER SCIENCE DEGREE

The Applied Computer Science major is designed to prepare students in the following core areas: Programming Fundamentals (object-oriented, event driven, algorithms), Information Management (database systems, data modeling, data warehousing, relational databases, query languages), Software Engineering (software requirements and design, software process, software project management), Operating Systems, Net-Centric Computing (internet programming, networks, security), Human Computer Interaction (GUI Design and Programming), and Intelligent Systems (Machine Learning).

Career Options / Job Titles
(SOME MAY REQUIRE ADDITIONAL EDUCATION AND/OR TRAINING)

- Actuary (NOC 2161)
- Aerospace Engineer (NOC 2146)
- Air Traffic Controller (NOC 2272)
- Computer Aided Design Technician (NOC 2253)
- Computer Marketing Representative (NOC 0124)
- Computer Network Specialist (NOC 2281)
- Computer Programmer (NOC 2174)
- Consumer Loan/Credit Officer (NOC 6235)
- Cost Estimator/Analyst (NOC 2233, 2234)
- Financial Auditor (NOC 1111)
- Information Scientist (NOC 2173)
- Investment Manager (NOC 0122)
- IT Specialist (NOC 2171)
- Market Research Analyst (NOC 4163)
- Meteorologist (NOC 2114)
- Public Health Statistician (NOC 2161)
- Technical Support Specialist (NOC 2281)
- Quality Assurance Analyst (NOC 2171)
- Webmaster (NOC 2175)

Skills Developed by Applied Computer Science Majors

- Programming skills
- Research and design skills
- Planning and organizing
- Written and oral communication skills
- Meetingddeadlines
- Statistical/data management skills
- Analytical and problem solving skills
- Critical thinking skills and development of solutions to complex problems

Potential Employers / Areas of Employment

- Aerospace Industry
- Construction Industry
- Consulting Firms
- Educational Institutions
- Financial Industry
- Government Agencies/Departments
- Health Agencies
- Insurance Companies
- IT Industry
- Manufacturing Industry
- Market Research Firms
- Marketing/Public Relations Agencies
- Media/Publishing/Telecommunications Industries
- Self Employed
- Software/Hardware Developers
- Software/Hardware Manufacturers
- Trade/Professional Associations
- Web-Based Companies

Professional Associations and Websites

- Applied Computer Science Fact Sheet http://uwinnipeg.ca/factsheets/docs/factsheet-applied-computer-sci.pdf
- NOC Codes http://www5.hrsdc.gc.ca/NOC/English/NOC/2011/Welcome.aspx
- Canadian Association of Computer Science http://cacsaic.org/
- Canada's Association of I.T. Professionals http://www.cips.ca/about
- Computing Research Association http://cra.org/
- International Association of Computer Science and Information Technology http://www.iacsit.org/
- The Association for Computer Machinery http://www.acm.org/
- Information and Communications Technology Council http://www.ictc-ctic.ca/