Message to the Community

To all members of the Community

This is the last time I will be involved in the compilation of the Annual Report for the Faculty of Science. I accepted the position of Dean of Science on January 1st, 2000 and produced the first annual report for the year 2000. Over time the document has grown and evolved to the version we have today. The Annual Report is our way of communicating and recording our accomplishments each year to the University and the community. It highlights the successes of our faculty members, staff and students. The last nine years have seen many changes to the face of the Faculty of Science, with new faculty members and staff bringing new expertise to the Faculty as well as increased growth in external research funding and infrastructure. We have developed new programs in teaching and research, renewed existing programs, created new opportunities for staff development and continue to enhance the support we provide for our students. Supplemental instruction was introduced this year to provide academic support to students, particularly those in first year, and to grow the academic leadership within our senior undergraduates. We have developed strong partnerships both in teaching and research with other faculties and institutions, provincially, nationally and internationally. This year we celebrated our research accomplishments with the community at the Research Gala. Annually we celebrate the accomplishments of our students at the Graduation Gala.

The Faculty of Science has a commitment to the community that supports us. We have developed partnerships with community based organizations (eg., Saskatchewan Science Centre) and support community based programs (eg., Week in Wascana, Science Fairs). Our faculty, staff and students are commonly found in classrooms or in community-based organizations (eg., Cubs) engaging students, teachers and parents in scientific concepts. It is critical to engage young students, to excite them about the world of possibility in science, because these young people will be our legacy. It is equally important to promote scientific literacy and life-long learning in the community that supports us, because they are our stakeholders.

I have very much enjoyed my time as Dean of Science, and working together with a dynamic and supportive team that respected individual contributions in support of the community that made up the Faculty of Science. We challenged each other in constructive ways to find creative solutions to overcome obstacles and embrace new opportunities. This has allowed us to grow not only our research and teaching programs but also our reputation. Through collaboration and partnership we have extended our reach for our students, faculty and staff beyond our local boundaries to include national and international opportunities and recognition. Your efforts have been acknowledged by your peers at local, national and international levels in the form of awards and scholarships. Congratulations!

To all members of the Faculty of Science, current and past, thank you for your contributions, your willingness to work together, and your ongoing support. I am truly grateful to have been given the opportunity to work with all of you over the last 9 years. I hope you will continue to grow and build the Faculty on a solid foundation of academic integrity supported by mutual respect, collaboration and partnership. These are the true strengths of the Faculty of Science. We are greater together with community.

Thank you again for your commitment and support. I look forward to continuing to work with you in my new role.

Sincerely

Dr. Katherine Bergman
Special Advisor to the President (Nursing)
The Faculty of Science Strategic Plan Creating Our Future: 2005 - 2010 serves as the framework for guiding decision-making and resource allocation in the Faculty. An executive summary of this document follows. This year several members of the Faculty of Science received National recognition for their accomplishments including, Dr. Chris Somers (Biology) who was awarded a Tier 2 Canada Research Chair in “Wildlife and Environmental Mutagenesis,” Dr. Harley Weston (Professor Emeritus, Mathematics) was awarded the Adrien Pouliot Award in recognition of his outstanding contributions to mathematics education at the local, regional and national levels, and Dr. Mark Brigham (Biology) was awarded the Joseph Grinnell Award recognizing individuals who have made outstanding sustained contributions to education in mammology over at least 10 years. These are a few highlights of the successes in the Faculty demonstrating our commitment to research, teaching and community service.

The Faculty of Science faces the challenge of retaining new colleagues, who are shaping the research directions and programs of the Faculty, in new and innovative ways, promoting both independent and integrated collaborative research and teaching programs. Our faculty members have attracted significant external research and infrastructure funding through the Natural Sciences and Engineering Research Council of Canada (NSERC), the Social Sciences and Humanities Research Council of Canada (SSHRC), the Canadian Institute for Health Research (CIHR), the Canada Foundation for Innovation (CFI), other government funding councils and the private sector. The Faculty has continued to develop the research enterprise and infrastructure to support these programs. The Faculty of Science looks forward to the increased infrastructure and space the new Research and Innovation Centre will provide. This new facility is scheduled to be ready to receive occupants in December, 2009.

The Faculty of Science is increasing the opportunity for students to follow a wide variety of career options by developing new programs within Science and in collaboration with other faculties at the University of Regina and with the Saskatchewan Institute of Applied Science and Technology (SIAST). These partnerships allow us to expand our program offerings using existing resources to build capacity and provide new opportunities for our students and the residents of Saskatchewan, Canada and abroad. In 2008 the Faculty approved a new Environmental Biology program in partnership with Lethbridge College in Alberta.

This year the Faculty of Science introduced Supplemental Instruction (SI) to provide academic support to our incoming students as they transition from High School to University. SI has exceeded our expectations and was expanded in the winter semester of 2009. This program employs our senior undergraduate students as peer mentors to our junior students, building academic leadership in our senior undergraduate students and promoting community in our student body across disciplines and years.

The Faculty of Science has been very active in Public Outreach. Many of our faculty members and students have been invited to elementary and high school classrooms. Others have given demonstrations and presentations to various community organizations, or sit as board members or volunteers on a number of community based organizations. The Faculty of Science is an ongoing supporter of the Saskatchewan Science Centre. This year the Faculty of Science expanded its public outreach mandate building on the success of past and ongoing initiatives such as Math Camp, Math Challenge and the Virtual Science Fair, as well as our participation in the Regina Science Fair. This past summer we expanded our public programming by increasing our commitment to the Cougar Camps. We are continuing to explore other opportunities to raise the public profile for the Faculty and the University in the broader community.

The Faculty of Science is proud of its accomplishments over the past year. I would like to take this opportunity to thank the faculty and staff for their dedication and support. In particular I would like to thank the two Associate Deans (Drs. Brien Maguire and Scott Wilson) and the Faculty Administrator (Audrey Perra), Science Operations (Lee Aument) and the Department Heads (Drs. Mark Brigham, Biology; Lynn Mihichuk, Chemistry and Biochemistry; Xue Dong Yang, Computer Science; Janis Dale, Geology; Nader Mobed, Mathematics and Statistics; Neil Ashton, Physics) for their assistance in compiling this report. I would also like to thank Angela Dohms and Dana Reed in the Student Program Centre, Sarah Savage, Office of Research Services, and Charles Phelps (Librarian for Science) for providing the necessary data. Finally I would like to thank Marlene Miller and Jacqui Lockert for their efforts in assembling the information in this document from all of the various sources. If you have any comments please do not hesitate to send them to the Dean’s Office.

Dr. Katherine Bergman
Dean of Science
Creating Our Future: 2005-2010

STRATEGIC PLAN FOR THE FACULTY OF SCIENCE

Executive Summary

High quality, original research and teaching are the fundamental cornerstones of a university. These activities distinguish the University from government research facilities, industry, colleges and technical institutes. In this context, the Faculty of Science is driven by curiosity, creativity and imagination, for knowledge and an understanding of our environment. This drive is fulfilled by the creation, enhancement and dissemination of knowledge. The catalyst for these activities is curiosity even where it may ultimately lead to a direct practical or economical application. Curiosity driven research is critical to the development of practical applications. Recruiting and retaining the best faculty and students are the most important goals for future success. High quality and innovative researchers are self-motivating. The role of the Faculty is to provide these researchers with an environment that is flexible and facilitates their research programs through the provision of adequate financial and human resources. Students are an important part of the success of these research programs.

The Faculty of Science will continue to promote an environment of individual responsibility and teamwork encouraging collaboration among faculty, students and staff. As a result, individual and/or collaborative research and teaching are expected and will be supported. The mandate of the Faculty of Science is to develop scientific and technological expertise within Saskatchewan, and to provide a supportive environment for retaining this expertise. Excellence in discipline-based research provides a solid foundation for collaboration and allows opportunities for interdisciplinary/collaborative research to grow as trends and needs dictate. At the same time, discipline-based research serves the long-term interests of student education, because research informs teaching. A strong research program enhances our teaching programs, discipline-based or interdisciplinary, at the undergraduate and graduate level. The Faculty has an established record of excellence in discipline-focused and interdisciplinary/collaborative research and teaching programs.

The Faculty of Science is committed to the following core values and principles, and will continue to build and expand based on these principles:

1. **Research and Teaching** are key activities of the Faculty of Science and it is important that these be of the highest quality;

2. **A Respectful Workplace** fosters an environment of individual responsibility and teamwork respecting academic and cultural diversity, and promoting cooperation and collaboration, among faculty, students and staff;

3. **Safety** means promoting a safe workplace environment that is compliant with the relevant legislation;

4. **Collegial governance** arises from the University of Regina and the Faculty of Science operating under a model of shared responsibility where it is expected that faculty and staff will contribute to the governance of the University and the Faculty;

5. **Accountability** to the relevant internal and external communities is the ultimate responsibility.

The Faculty of Science plans to develop its strengths further, guided by the above principles. In so doing, it will meet its commitment to its faculty members, students, staff, the University and the Province of Saskatchewan.
Over the past nine years the Faculty of Science has been through an intensive phase of active recruitment and infrastructure upgrading, and has been successful in attracting high quality personnel to drive the research and teaching enterprises. These last nine years have been exciting times in the Faculty with new colleagues bringing new ideas, new infrastructure requirements and new program directions. Looking to the future, the Faculty now faces the challenge of retaining these new colleagues and sustaining the new initiatives in teaching and research that have come as a result of this renewal and growth. The focus of the Faculty’s objectives, has shifted from retention and sustainability over the past few years to one of renewed recruitment and infrastructure acquisition. The Faculty is now looking to recruit new faculty members over the next few years to fill existing vacancies. These replacements will be used to grow our research in areas of strength and enhance our graduate programs.

Over the next five years the Faculty needs to address the following concerns to sustain the current level of high calibre teaching and research, and to support continued growth in research and teaching. These issues focus largely around infrastructure and critical mass, particularly if we are to retain these highly qualified members and nourish the growth of the Faculty. These priorities will be achieved by securing funds as the result of a number of ongoing opportunities:

1. Graduate and undergraduate student recruitment and retention through increased student support services, supplemental instruction and increased funding for scholarships;
2. Faculty recruitment in key areas to grow our research in areas of strength and enhance our graduate programs;
3. Sustained funding to renew and maintain the existing undergraduate laboratories and to develop modern laboratory facilities designed to meet the needs of new or revised programs;
4. Sustain the core infrastructure to support the variety of research programs in the departments;
5. Sustain a Visiting Scholars Program to increase the potential for national and international interaction and collaboration;
6. Develop our programs to meet current educational priorities and opportunities in the Province while reflecting the expertise in the Faculty.

This shift in focus to retention and strategically filling several vacant positions, means new opportunities will be pursued and new colleagues will be recruited. The Faculty needs to ensure the potential from the current investment is realized, and is allowed to grow and develop, to support the goals and objectives, in research and teaching highlighted in the Faculty of Science Strategic Plan Creating Our Future: 2005–2010 (www.uregina.ca/science). The Vision, Mission and Goals statement, and a summary of the objectives follow. Achieving this plan will require a considerable investment of time and resources from all parties responsible, however the potential return is worth the commitment of time and the investment of resources.

The Faculty of Science faces the new challenges and opportunities that lie ahead with confidence and optimism. The renewal of the Faculty, coupled with the experience and established records of existing colleagues, provides a solid foundation for growth of the Faculty over the next five years. The future of the Faculty of Science is grounded in discipline-based research that supports integrated collaborative research and the recruitment/retention of high quality people. We will continue to work together to ensure our success.
Creating Our Future: 2005-2010

VISION
The Faculty of Science is committed to sustain excellence in the creation and dissemination of knowledge by research, scholarly publication and teaching in both basic and applied sciences.

MISSION
The mandate of the Faculty of Science is the creation and application of knowledge through pure and applied research and the dissemination of this knowledge through scholarly publication and teaching. Research and Teaching are the fundamental activities of the Faculty. The Faculty of Science has a dynamic, externally funded, peer-evaluated, nationally and internationally recognized research base. This base provides a solid foundation for our undergraduate and graduate programs, and is a mechanism for attracting and retaining high quality faculty, students and staff to the Faculty of Science.

ACHIEVING OUR VISION AND MISSION
To meet the objectives described in our Vision and Mission statement the Faculty must focus on six key goals:

• Research and Teaching: The Faculty must provide an environment that promotes individual and collaborative research and teaching activities of its faculty, students and staff;
• Faculty and Staff: The Faculty must attract and retain high quality faculty and staff members, and support them in their academic responsibilities because the quality of the faculty and staff defines the quality of the Faculty;
• Students: The Faculty must provide high quality programs, which develop critical thinking and problem solving skills that build a solid scientific base of knowledge, and the Faculty must enhance these programs by introducing students to research at an early stage;
• Recognition: The Faculty must continue to promote the development of national and international research and teaching reputations by actively encouraging research and teaching collaborations;
• Service: The Faculty must continue to provide high quality community service delivery and to provide programs and lectures, for schools and community organizations;
• Accountability: The Faculty must be accountable to the University of Regina, the national granting councils, the community of its peers and the public for the evaluation of performance.

Since these goals are entwined, the mechanisms for achieving them are described under the following five main subject headings: People, High Quality Programs, Community Service, Resources, and Implementation and Accountability.
## OBJECTIVES

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<tr>
<th>Objective 1:</th>
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<td>That all policies and procedures in the Faculty of Science reflect the Principles of Natural Justice to ensure fairness and equity for all members.</td>
<td>To attract and retain high quality faculty in areas of identified strength in the Faculty.</td>
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<th>Objective 3:</th>
<th>Objective 4:</th>
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<td>To attract and support high quality sessional lecturers to contribute effectively to the teaching goals of the Faculty.</td>
<td>To recruit and retain high quality staff to provide administrative and technical support for the activities of the Faculty of Science.</td>
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<th>Objective 5:</th>
<th>Objective 6:</th>
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<td>To recruit and retain high quality undergraduate students both locally and from diverse regions.</td>
<td>To increase the number of First Nations students registered and successfully completing degrees in the Faculty of Science.</td>
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<th>Objective 7:</th>
<th>Objective 8:</th>
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<td>To build a sense of community among all students in the Faculty of Science.</td>
<td>To recruit and retain high quality graduate students both locally and from diverse regions.</td>
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<th>Objective 9:</th>
<th>Objective 10:</th>
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<td>To increase the engagement and involvement of our alumni in the support of the activities of the Faculty of Science.</td>
<td>To continue to explore international opportunities in the research and teaching programs in the Faculty of Science.</td>
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<th>Objective 11:</th>
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<td>To sustain and grow a strong national and international calibre research enterprise in the core disciplines of the Faculty of Science.</td>
<td>To sustain and grow a strong integrated collaborative research program in the Faculty, with other faculties and with other institutions locally, nationally and internationally.</td>
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<th>Objective 13:</th>
<th>Objective 14:</th>
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<td>To increase the awareness and recognition of the research contributions of members of the Faculty of Science.</td>
<td>To continue to sustain and develop high quality undergraduate and graduate programs.</td>
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<th>Objective 15:</th>
<th>Objective 16:</th>
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<td>To provide the necessary support services for the research and teaching programs.</td>
<td>To continue to build our relationship with other institutions, government and industry.</td>
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<th>Objective 17:</th>
<th>Objective 18:</th>
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<td>To continue to improve service delivery to other programs on campus.</td>
<td>To enhance the public perception and appreciation of the importance of the role of the Faculty of Science in the community.</td>
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<th>Objective 19:</th>
<th>Objective 20:</th>
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<td>To obtain sufficient financial and physical resources to meet the current and future needs of the Faculty of Science.</td>
<td>To develop continuous and growing revenue for the Faculty of Science from private donations.</td>
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Atrium of the new Research and Innovation Centre (RIC).
# Science Annual Report 2008

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The Faculty of Science has enjoyed a successful year in research and teaching, with several new initiatives. This report highlights the major accomplishments in the Faculty of Science between January 1, 2008 and December 31, 2008. The Faculty commitment to research and teaching demonstrates to others we are a critical and innovative part of the University of Regina, the City and the Province.

This document summarizes accomplishments of 2008 and gives an indication of future directions and potential. Many exciting new initiatives in both research and teaching within the Faculty, between faculties and with outside agencies and institutions are currently being explored and will be reported next year. Additional and more detailed information about our programs and program requirements, research, faculty members, students and staff is available on our website at www.uregina.ca/science. The Faculty currently offers Bachelor of Science and Bachelor of Science Honours degrees in a number of disciplines as well as Certificates in Computer Science and Indian Health Studies. There are joint degrees with the Faculty of Arts and combined degree programs with SIAST. The Faculty is exploring collaborative opportunities with foreign institutions particularly in China and India. Many of the programs in the Faculty of Science offer a Cooperative Education option. Laboratory work is a compulsory aspect of the degree programs because it provides students with practical experience in a controlled environment. The Faculty of Science has a strong commitment to teaching and our members are commonly recognized for their contributions to teaching. Dr. Harley Weston, Professor Emeritus, Department of Mathematics and Statistics, was awarded the Adrien Pouliot Award in recognition of his outstanding contributions to mathematics education at the local, regional and national levels and was named the co-recipient of the Pacific Institute of Mathematical Sciences (PIMS) Education Prize.

The Faculty of Science offers graduate programs in the various disciplines leading to a Master of Science degree or a Doctor of Philosophy degree. Each student in these thesis-based degree programs works under the direct supervision of a faculty member.

This year the Faculty of Science introduced the Supplemental Instruction (SI) program to provide academic support to our incoming students as they transition from High School to University. SI has exceeded our expectations and was expanded in the winter semester of 2009. This program employs our senior undergraduate students as peer mentors to our junior students, building academic leadership in our senior undergraduate students and promoting community in our student body across disciplines and years.

Faculty members continue to develop research initiatives in the Faculty of Science. The results of their research are published in a variety of peer-reviewed journals and conference proceedings. New research opportunities, either individual or collaborative are proposed and developed on an ongoing basis. The Faculty of Science has a strong commitment to research and our members are commonly recognized for their contributions. The Faculty of Science is home to three Canada Research Chairs. Dr. Chris Somers (Biology) was awarded a Tier 2 Canada Research Chair in “Wildlife and Environmental Mutagenesis” in 2008. We are currently searching for our fourth Canada Research Chair to be housed in the Department of Computer Science. Dr. Stephen Kirkland was awarded the Alumni Award for Excellence in Research at the Spring 2008 convocation.

Fundraising will take on a new profile in the Faculty over the next few years. Our focus will be on the development of scholarships at both the undergraduate and graduate level to support our goal of attracting high quality students. The Faculty of Science gratefully acknowledges the generous donation of the estate of Muriel Evelyn Finlayson, a former Chemistry Laboratory Instructor. This generous gift of $156,000 was designated to support Faculty of Science Scholarship initiatives. The Faculty has announced two new undergraduate research scholarships in her name. The Finlayson Environmental Science Research Scholarship and the Finlayson Computational Science Research Scholarship are valued at $5000.00 each.

The new building (RIC) is progressing and faculty who will move in have been identified and are working with the contractor to design their laboratories. The move into the new laboratories is scheduled to begin in December 2009. This building will enhance the research and teaching programs in the Faculty of Science and will provide the necessary infrastructure to recruit and retain high quality faculty, staff and students.

The Faculty of Science has been very active in Public Outreach throughout its history. However it has largely been accomplished through individuals who have an intrinsic interest in outreach. Early in 2007 a new committee was formed in the Faculty and charged with the responsibility to spearhead and coordinate public outreach activities. Collaboration has continued with the departments to develop activities, particularly for the schools that will complement our student recruitment efforts.

We are building on the success of past and ongoing initiatives such as Math Camp, Math Challenge and the Virtual Science Fair, as well as our participation in the Regina Science Fair. We will continue to explore other opportunities to raise the public profile for the Faculty and the University in the broader community.
Week in Wascana

This is a week-long program of activities hosted by Wascana Centre Authority for children aged 8-11. The partners in this program are Saskatchewan Legislature, Royal Saskatchewan Museum, Saskatchewan Science Centre, University of Regina, Conexus Arts Centre, the City of Regina, MacKenzie Art Gallery and FunTAZM Entertainment. We shared the University of Regina time slot with the Faculty of Kinesiology and Health Studies, and the Research Park.

University of Regina Summer Sports Camps

We worked with Kinesiology and Health Studies in 2008 and this summer offered a ‘science’ component to the Summer Sports Camps. Our part of the series included activities from all six departments in Science. The science portions were highly subscribed and we intend to increase our involvement next summer.

Adventures in Agriculture

Adventures in Agriculture is held annually on the Saturday morning of Agribition. It is sponsored by the Rotary Club of Regina Eastview and was designed to broaden the knowledge and understanding of the multi-faceted agricultural sector for Grade 11 and 12 students. This activity, led by Dr. Chris Yost, introduces these students to the world of agricultural biotechnology through isolation of DNA from pulse crops and wheat crops. Isolation of DNA is one of the first steps in performing any type of biotechnology based research. Students always comment on how much they enjoy this experience and it is a rewarding activity for Dr. Yost and his graduate students who assist.

Research Gala

This year the Faculty of Science brought our research to the community by hosting a Research Gala as part of the Greater Together with the Community events celebrating the installation of the new president Dr. Vianne Timmons. The event was well attended by the community and showcased research from High School students, Undergraduate and Graduate Students as well as our Post-Doctoral Fellows and Faculty Members.

Public service is an important component of our contribution to the community that supports us. The Faculty of Science has a strong commitment to public service and our members are commonly recognized for their contributions to the community. This year Dr. Mark Brigham (Biology) was awarded the Joseph Grinnell Award recognizing individuals who have made outstanding sustained contributions to education in mammology over at least 10 years.
The University of Regina Planning Document, and the Faculty of Science Vision, Mission and Goals Statement guide the decision making process of the Faculty. The Faculty of Science Strategic Plan Creating Our Future: 2005-2010 was approved at the September 2004 meeting of Faculty Council. The Faculty of Science is committed to developing a strong foundation of inquiry-based research to support integrated collaborative research programs internally and externally, nationally and internationally, and to support the development of practical applications derived from this research. A strong NSERC and CIHR supported base of research will ensure the University maintains a stable level of funding from NSERC to support the indirect costs of research across the Institution. A strong research program is the key to the success of the teaching program at both the undergraduate and graduate levels because research informs teaching and maintains its currency. Researchers serve as role models and mentors for our students. Our students are a reflection and measure of the success of the research and teaching programs of the Faculty as well as of the Institution.

The Faculty of Science has been working steadily to support the specific goals and initiatives identified in the Strategic Plan:

- Increase funding for graduate students;
- Increase enrolment, both graduate and undergraduate, including international students;
- New program development (teaching and research) that reflects the University’s and the Faculty’s strategic areas of emphases in both discipline-based and integrated collaborative programs;
- Recruit and retain high quality faculty and support staff;
- Upgrade undergraduate laboratory space and facilities to maintain program currency and to meet legislated safety standards;
- Removal and disposal of chemical wastes, and establishment of policies and procedures for safe handling of biological, chemical and radioactive wastes.

In 2009 the Faculty will report on our progress toward achieving the goals and objectives set out in the Strategic Plan Creating Our Future: 2005-2010. This report will serve as the measure of our success in meeting the current Strategic Plan and form the basis for initiating the next strategic planning document. The next strategic plan will need to build on the past, critically assess the current goals objectives, align with the new University Strategic Plan and look to the future.

The Faculty has been successful in meeting these goals but most will require an ongoing commitment if the objectives are to be sustained. Many require the investment of significant resources to address the accumulated deferred maintenance and infrastructure problems, and if not given a commitment of ongoing support will not be sustained. These goals reflect the objectives stated in the University of Regina document entitled Reaching Our Potential: Planning for Progress 2004-09 as well as the Student Recruitment Task Force Report, Faculty Recruitment and Retention, and Creating Our Future: 2005-2010, A Strategic Plan for the Faculty of Science. These goals provide the framework for the allocation of Faculty resources and ongoing support to individual departments. The Departments have each developed planning documents that have undergone external review and are consistent with the University of Regina Reaching Our Potential, the University of Regina Strategic Research Plan and the Faculty of Science Strategic Plan. The departmental documents guide faculty recruitment, program development (teaching and research) and infrastructure support. In this context the Faculty of Science through the various departments had a very successful year. The accomplishments and initiatives of each department are highlighted below.

### 2.1 DEPARTMENTS

A brief overview of each department and highlights of accomplishments in 2008 follow.
Part 2: Faculty Overview

DEPARTMENT OF BIOLOGY
Part 2: Faculty Overview

The Department has identified two areas of focus (Environmental/Ecology Stream and Molecular Biology Stream) that were supported by the External Review Team in 2000. These areas provide the framework for recruitment and program development (teaching and research) in the Department, and are consistent with the strategic research areas of emphases in Energy and Environment, and Health Research, described in the University of Regina Strategic Research Plan. The Department has acquired a strong team of academics whose collective expertise addresses important issues in Environmental Biology, an important core aspect of the University of Regina’s Strategic Research Plan. The Department currently hosts 3 Canada Research Chairs and an NSERC University Faculty Award in Environmental Science. These activities are central to the idea of a University and are consistent with the University’s Vision, Mission, Goals and Values statements on page 14 of its document entitled “Building on Progress: The Plan for 2004 – 2009” and the Faculty of Science Creating Our Future: 2005-2010 Strategic Plan.

The Department’s priority over the medium to long term has not changed for several years, and involves 4 interwoven areas that have implications for both people and facilities. These priorities build on the research and teaching momentum that has been generated. The Department is committed to providing quality experiential learning for undergraduate students by emphasizing small classes, especially in upper years, supported by high quality laboratory experience and instruction while allowing faculty to have the time to conduct externally funded, internationally recognized research. To maintain this balance requires both teaching and research be conducted by enthusiastic, dedicated people who have both the time and the facilities to excel.

Accomplishments

- Collectively 11 faculty members in the Department plus the laboratory manager of the Environmental Quality Analysis Laboratory (EQAL) held 12 NSERC Discovery Grants, 1 NSERC RTI Grants and 14 other grants and contracts totalling about $1.785 million.
- Faculty members supervised 8 Honours students to completion, 22 MSc students (3 completed) and 6 PhD students; 6 of these graduate students held NSERC scholarships. The Department supported 5 Postdoctoral Fellows (one with NSERC PDF Award).
- The Department supervised 6 NSERC URSA’s.
- Dr. Chris Somers was awarded a Tier 2 CRC chair in “Wildlife and Environmental Mutagenesis”.
- Dr. Mark Brigham won the 2008 Joseph Grinnell Award for long term contributions in the teaching of Mammalogy from the American Society of Mammalogists.
- Dr. Scott Wilson was appointed as the University of Regina representative to NSERC for a three year period from July 1, 2008 to June 30, 2011.
- Dr. Chris Yost was appointed as a member of the NSERC joint PromoScience/Michael Smith Awards Selection Panel for a three year term ending June 30, 2011.
- Ms. Miranda Dunbar (PhD student) won the Bat Conservation International Award for best student paper at the 38th Annual North American Symposium on Bat Research.
- Over the past 5 years, members of the Department have been recognized with Alumni awards for Teaching and Research. Our research expertise is highlighted by the fact the Department is home to one CRC Tier 1 Chair holder, 2 CRC Tier 2 chairs, and a University Faculty Award (UFA) award holder.
- Collectively, faculty members published 14 refereed articles or book chapters in national and international journals and presented a total of 10 conference papers.
- Faculty members participate in the larger academic community by reviewing manuscripts and grant applications, and serving on editorial boards of scholarly journals.
- The Department is searching (ongoing) to hire a new microbiologist.
- The Department is searching (ongoing) to hire a term laboratory instructor and a term lecturer to allow us to continue to offer a coherent teaching program given that sabbaticals, research awards and administrative positions have dramatically reduced our faculty teaching complement.
- With substantial help from the Faculty of Science we have begun to set up the Paul Riegert memorial scholarship fund to augment stipends to graduate students.
- With substantial help from the Faculty, we have made and are in a position to make substantially more progress toward upgrading the microscopes for undergraduate labs.
- Members of the Department also demonstrated public accountability based on the numerous presentations made to schools, community interest groups and the media.
Part 2: Faculty Overview
The Department has identified two areas of emphases (Chemistry of Biologic Systems and Chemistry of Environmental/Energy Systems) in their planning document of 2000 that builds on the four pillars of chemistry: Analytical, Inorganic, Organic and Physical Chemistry. These areas provide the framework for recruitment and program development (teaching and research) in the Department and are consistent with the strategic areas of emphases in Energy and Environment, and Health Research, described in the University of Regina Strategic Research Plan. The ideas and plans described in the Department’s Chemistry Plan (December 12, 2000) are still relevant and the Department is working hard toward fulfilling the key goals delineated in the plan, namely, a) to achieve and maintain excellence in its execution of Teaching and Research, and b) to build a “critical mass” of faculty members to facilitate the process of building and sustaining cohesive research programs in the chemical and biological sciences, environmental sciences, and to foster meaningful research collaborations with other departments within the Faculty of Science, in particular the department of Biology, and with the Faculty of Engineering, especially the Greenhouse Gas Technology group and the Petroleum Technology Research Centre. All these activities are central to the idea of a University and are consistent with the University’s Vision, Mission, Goals and Values statements on page 14 of its document entitled “Building on Progress: The Plan for 2004 – 2009” and the Faculty of Science Creating Our Future: 2005-2010 Strategic Plan.

The Department is working toward achieving excellence in Research and Teaching, which also includes the delivery of quality undergraduate and graduate programs in Chemistry and Biochemistry. The Department aims to provide a vibrant and positive environment for higher learning and training for our undergraduates and graduates.

Accomplishments

- Collectively 9 faculty members in the Department held 6 NSERC Discovery Grants, 7 other grants and contracts totalling about $382,797.
- Faculty members supervised 5 Honours students to completion, 13 MSc students (4 completed) and 7 PhD students (1 completed). The Department supported 1 Postdoctoral Fellow.
- The Department supervised 9 NSERC URSA’s.
- Dr. Tanya Dahms was appointed as a member of the Cell Biology Grant Selection Committee for a one year term ending June 30th, 2009.
- Dr. Stephen Cheng was appointed as a term Lecturer in Chemistry for the period January 1, 2009 – December 31, 2011. Dr. Cheng will teach a variety of undergraduate chemistry courses in our Department as well as assume the role of Supplemental Instruction Coordinator for the Faculty of Science.
- Mr. Mark Tymchak was appointed as Laboratory Instructor II, tenure-track, effective August 1, 2008.
- The Department hired Dr. Ron Treble as a Technical Associate (part-time) for the period May 1, 2008 – April 30, 2009.
- The initial commitment from the Faculty of Science, the University and the Department to invest in recruiting new faculty members has contributed to the positive results in external grant successes.
- Collectively, faculty members published 14 refereed articles or book chapters in national and international journals and presented a total of 18 conference papers.
- Faculty members participate in the larger academic community by reviewing manuscripts and grant applications, and serving on editorial boards of scholarly journals.
- Dr. Don Lee (Professor Emeritus) and his colleagues David Anderson and Larry Mossing completed their high school level Chemistry Textbook entitled “Chemistry for Saskatchewan Students.”
- The Department initiated a complete review of the Chemistry and Biochemistry programs and curricula. The main objective was to arrive at a cohesive, comprehensive and effective program for Chemistry and Biochemistry. The revised curriculum will be implemented September 2009.
- The Department is reviewing the graduate curricula in Chemistry and Biochemistry. Minor changes and additions have already been made to the graduate thesis-based M.Sc. and Ph.D. programs. The next step will be to update the graduate courses to include new courses developed by our new faculty members.
- The Department has formulated a plan for the relocation of chemistry and biochemistry faculty members, and their research groups to the new RIC space and the related infrastructure requirements that are essential in the RIC for the relocation to be realized. Members involved in the move have been working closely with the architects in laying out the design of their research areas.
- The Department has demonstrated its public accountability as evidenced by the numerous presentations made to schools, community interest groups and the media.
Part 2: Faculty Overview
The Department has identified three principal areas of focus (Data Mining and Databases, Digital/Multi Media and Software Systems Development). These areas provide the framework for recruitment and program development (teaching and research) in the Department and are consistent with the strategic areas of emphases in Energy and Environment, Informatics and Health Research, described in the University of Regina Strategic Research Plan. Members of the Department are actively involved with the Sustainable Communities Initiative. All these activities are central to the idea of a University and are consistent with the University’s Vision, Mission, Goals and Values statements on page 14 of its document entitled “Building on Progress: The Plan for 2004 – 2009” and the Faculty of Science Creating Our Future: 2005-2010 Strategic Plan.

In general, the Department’s priorities are to promote quality research among faculty members and graduate students; encourage research collaboration both internationally and internally; and encourage collaborative projects and increase research funding.

Accomplishments

- Collectively 17 faculty members in the Department held 14 NSERC Discovery Grants and 12 other grants and contracts totalling about $954,441.
- Faculty members supervised 2 Honours students to completion, 71 MSc students (20 completed) and 21 PhD students (1 completed) and 1 Postdoctoral Fellow. The Department hosted 6 International Visiting Scholars.
- The Department supervised 4 NSERC URSA’s.
- Drs. Philip Fong, Howard Hamilton and Xue Dong Yang were awarded an NSERC Strategic Project Grant for their project “Protection Technologies for the Facebook Generation.” The project was fully funded at $186,580.
- Dr. Yiyu Yao, together with N. Zhong, at the Maebashi Institute of Technology in Japan, received the prestigious “PAKDD Most Influential Paper Award (1999-2008)," from the Pacific-Asia Conference on Knowledge Discovery and Data Mining, in recognition of their influential and lasting contribution to the field of data mining.
- Dr. Xue Dong Yang was an invited keynote speaker at the IEEE International Conference on Granular Computing, August 2008.
- Dr. Howard Hamilton was appointed to NSERC’s Strategic Project Selection Panel – Advanced Communications and Management of Information – A, for a three-year term.
- Dr. Malek Mouhoub was awarded the Viterra Professorship in Computer Science. The title of his proposal is “Managing Temporal Constraints with Preferences and Uncertainty.”
- The Department is searching (ongoing) for a CRC Tier 2 position. If this search is successful, the department will significantly strengthen existing areas and/or expand into new research areas.
- Dr. David Gerhard is a monthly columnist for CBC Radio on issues of technology and society.
- Dr. Malek Mouhoub served on the Alberta Ingenuity Fund Peer-Review Advisory Committee.
- Dr. Xue Dong Yang’s research lab hosted numerous visitors during the year including the UR Fund Raising Campaign Donors and the Lieutenant Governor’s Youth Government Forum.
- Collectively, faculty members published 87 refereed articles or book chapters in national and international journals and peer-reviewed conference proceedings and presented a total of 40 conference papers.
- Faculty members participate in the larger academic community by reviewing manuscripts and grant applications, and serving on editorial boards of scholarly journals.
- Three new 2+2 undergraduate program agreements have been signed in 2008 with:
  a) Jiangxi University of Finance and Economics, China
  b) Xiamen University of Technology, China
  c) Algol School of Technology, India
- The well-received Online Tutoring for CS110 and CS115 was continued in 2008.
- The significantly revised curriculum introduced in 2006/2007 was fully implemented in 2008/2009. Evaluation and fine-tuning will be carried out over the next three years on a continuous basis.
- The Post-Diploma B.Sc. program has attracted a number of former SIAST CIS (Computer Information Systems) and CST (Computer System Technology) graduates. This program will be promoted through CIPS and other local IT user groups.
- The Department has also demonstrated its public accountability as evidenced by the numerous presentations made to schools, community interest groups and the media.
- Dr. Daryl Hepting hosted the public lecture “How to Eat Well And Save Our Planet: Answers to questions about food safety and food security are closer than you think” by Joel Salatin, the second generation owner of Polyface family farm, and author of 6 books.
Part 2: Faculty Overview
The Department has identified field-based resource geology as the principal area of focus, and this provides the framework for recruitment and program development. The focus on field-based geology complements the focus of the Department of Geology at the University of Saskatchewan, and at Saskatchewan Industry and Resources allowing for extensive collaboration between the different groups. Field-based resource geology with practical hands-on experience is a hallmark of the training that our students receive. Graduate and undergraduate students were supported in numerous field and laboratory based thesis projects by individual faculty research grants, government surveys and industry. This focus is consistent with the strategic areas of emphasis in Energy and Environment described in the University of Regina Strategic Research Plan. Members of the Department are actively involved in the Petroleum Technology Research Centre (PTRC), Prairie Adaptation Research Collaborative (PARC), Canadian Plains Research Center (CPRC) and Environmental Quality Analysis Laboratory (EQAL) as well as a number of international research projects. All these activities are central to the idea of a University and are consistent with the University’s Vision, Mission, Goals and Values statements on page 14 of its document entitled “Building on Progress: The Plan for 2004 – 2009” and the Faculty of Science Creating Our Future: 2005-2010 Strategic Plan.

The greatest priority of the Department remains in retaining our high standard programs in the areas of resource geology and environmental geoscience, with practical hands-on experience in the areas of petroleum, hard rock geology and Quaternary studies. We have a national reputation for excellence as recognized by industry and government who actively pursue our graduate and undergraduate students. We will continue to provide courses that meet the standards for professional registration with the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS). The Department embarked on another major curriculum review of our program in December 2008 after our 2008 Vision Review and a request from APEGS given the new list of National Standards in Geoscience from the Canadian National Standards Committee approved May 2008.

Accomplishments

- Collectively 7 faculty members in the Department held 4 NSERC Discovery Grants and 5 other grants and contracts totalling $213,481.
- Faculty members supervised 3 Honours students to completion, 16 MSc students (1 completed), 1 PhD student (0 completed) and 1 Postdoctoral fellow. The Department hosted 5 International Visiting Scholars.
- The Department supervised 4 NSERC URSA’s.
- Dr. Maria Velez was appointed to a tenure track Lecturer position, providing additional stability to our program in Paleontology and Quaternary Environments.
- The new PhD program has been submitted for external review based on the successful competition of 7 PhD students.
- Collectively, faculty members published 18 refereed articles or book chapters in national and international journals and presented a total of 18 conference papers.
- The department continues to upgrade the optics and petrology labs to better meet the needs of students and faculty research. In 2008, with funds from the Faculty of Science, 1 reflected light and 3 Nikon petrographic microscopes were added.
- Four 3rd and 4th year Geology majors (Matt Cugnet, Jennifer Cugnet, Jennifer Nicolay and Ray Sthamann), selected through the Office of Energy and the Environment, participated in a students’ exchange program with the Oil and Gas University of Ivano-Frankivsk in the Ukraine.
- A number of our students were honoured in 2008 by external agencies.
  - Ms. Jill Dredger was the recipient of the Gold medal from the Association of Professional Engineers and Geoscientists as the top Geoscience student at the U of R.
  - Mr. Andrew Weber was selected to participate in the Petroleum Industry sponsored Student Industry Field Trip (SIFT) conference in Calgary.
  - Ms. Jessica Perras was selected to attend the S-IMEW Student-Industry Mineral Exploration Workshop sponsored by the PDAC in Sudbury.
  - Ms Jennifer Braun won the R.L. Milner Memorial Award from the Saskatchewan Geological Society.
  - Mr. Brian McEwan won the best undergraduate poster at the SIR Open House in Saskatoon.
- The student society, the D.M. Kent Club of Geology, continues to grow and was very active holding several events this past year. They are established student chapters in the GAC, APEGS and both the Canadian and American Association of Petroleum Geologists.
- The Department has a strong commitment to public outreach, as well as recruitment and retention of students. These activities are supported by the departmental poster, highlighting the Program in Geology, in addition to public presentations, labs and field trips for local school and summer school groups.
Part 2: Faculty Overview

DEPARTMENT OF MATHEMATICS AND STATISTICS
The Department of Mathematics and Statistics offers programs in mathematics, statistics and actuarial science. This variety of programs provides the framework for recruitment and development initiatives. The principal areas of research are algebra and number theory, discrete mathematics, geometry and topology, matrix theory, operator algebras, and probability theory and statistics. The active colloquium series and research seminars in the Department exemplify the University’s goal in scholarship and research to “sustain a vibrant research enterprise where faculty members are enthusiastic about intellectual activity.” The actuarial program and the variety of outreach initiatives in the Department meet the University’s goal in service to “Take our academic expertise into the community….” These areas of focus are consistent with the University of Regina Strategic Research Plan that commits to supporting high quality areas of basic research and the strategic research emphasis in Informatics. The Department is also active in public outreach through Math Central and Math Camp. This is one of the stated goals of the University of Regina in the Strategic Planning Document under public service and accountability. All these activities are central to the idea of a University and are consistent with the University’s Vision, Mission, Goals and Values statements on page 14 of its document entitled “Building on Progress: The Plan for 2004 – 2009” and the Faculty of Science Creating Our Future: 2005-2010 Strategic Plan.

Accomplishments

- Collectively 22 faculty members in the Department held 17 NSERC Discovery Grants and 4 other grants and contracts totalling about $316,000.
- Faculty members supervised 16 Masters students (4 completed), 11 PhD students (3 completed), and 3 Postdoctoral Fellows (two of our doctoral students hold NSERC PGS awards: one PGS D and CGS D). The Department hosted 4 International Visiting Scholars.
- The Department supervised 4 NSERC URSA’s.
- Drs. Shaun Fallat (chair) and Brian Alspach were co-organizers of the 2008 Pacific Institute of Mathematical Sciences (PIMS) Industrial Problem Solving Workshop and Graduate Industrial Mathematical Modeling Camp that was held in Regina, June 9-21, 2008, in partnership with the Government of Saskatchewan and the University of Regina.
- Dr. Stephen Kirkland was awarded the Alumni Award for Excellence in Research at the Spring 2008 convocation.
- Dr. Harley Weston (Professor Emeritus) was the recipient of the Canadian Mathematical Society’s 2008 Adrien Pouliot Award in recognition of his outstanding contributions to mathematics education at the local, regional and national levels and was named the co-recipient of the PIMS Education Prize.
- Ms. Sarah Plosker was the recipient of the University Prize in Science at the Spring 2008 convocation.
- Drs. Allen Herman and Karen Meagher organized a workshop on Algebraic Aspects of Association Schemes and SchemeRings at the University of Regina, July 8-11, 2008.
- Profs. Larry Miller and Peter Douglas were co-organizers of the Actuarial Research Conference held at the University of Regina, August 14-16, 2008.
- Dr. Julianna Erlijman was a co-organizer of a workshop entitled Topics in Von Neumann Algebras, held at Banff International Research Station, March 23-28, 2008.
- Collectively, faculty members published 34 refereed articles or book chapters in national and international journals and presented a total of 41 conference papers.
- The Department upgraded its computer infrastructure with significant financial support from the Faculty of Science. The upgrade includes: replacement of the Department’s main server, replacement of the server for teaching labs, and the standardization of UNIX computer environment within the Department.
- Members of the Department demonstrated public accountability based on the numerous presentations made to schools, community interest groups and the media.
- The Department continues to offer a series of problem solving sessions for interested students in Grades 7 through 12.
- Math Central is in the fourth year of a grant from the Imperial Oil Foundation that will allow continuation of its services to the K-12 mathematics community. Progress reports can be found at http://MathCentral.uregina.ca/reports/.
- The Department hosted the Mathematics Enrichment Camp in Fall 2008. The event was organized by the Department Program Coordinator, Ms. Leigh-Anne MacKnight.
The Physics Department has identified experimental and theoretical subatomic physics as principal areas of expertise, with closely-related activities in computational physics and additional involvement in astronomy. This research focus was supported by the most recent external review of the department, and is consistent with the University of Regina Strategic Research Plan that commits to supporting high quality areas of basic research and the strategic research emphasis in Informatics. The department is committed to providing an enviable learning experience for students, and is constantly enhancing the classroom, laboratory, and co-operative education opportunities. All these activities are central to the idea of a University and are consistent with the University’s Vision, Mission, Goals and Values statements on page 14 of its document entitled “Building on Progress: The Plan for 2004 – 2009” and the Faculty of Science Creating Our Future: 2005-2010 Strategic Plan.

Accomplishments

- Collectively 10 faculty members in the Department held 9 NSERC Discovery Grants, and 13 other grants and contracts totalling about $3.5M.
- Faculty members supervised 1 Honours students to completion, 4 Masters students, 3 PhD students and 5 Postdoctoral Fellows.
- The Department supervised 4 NSERC URSA’s.
- Dr. Pierre Ouimet was appointed to a tenure track lecturer position.
- Dr. Garth Huber was appointed to the NSERC Subatomic Physics Grant Selection Committee, as well as being selected as the founding President of the Canadian Institute for Nuclear Physics.
- Dr. George Lolos was named the Deputy Spokesman of the Glue X project.
- Dr. Zisis Papandreou was elected to the Glue X Collaboration Board.
- Dr. Ted Mathie was appointed to the Uranium Development Partnership. This is a committee of 12 created by the province of Saskatchewan via Crown Investments Corporation with representatives from U of R, U of S, SUMA, SARM, labour, environment and private business including CEO’s of Cameco, Bruce Power, Areva, and the aboriginal community. The committee was given a mandate to identify all opportunities for development in Saskatchewan of the uranium fuel process.
- Drs. Mauricio Barbi and Ted Mathie and their team completed the construction of a detector for the T2K experiment.
- Successful initiation of a Prairie Physics seminar program designed to bring external speakers to the participating departments. This past semester we entertained three cutting edge researchers, all of whom gave engaging and well-attended seminars. Dr. Papandreou, toured three universities (Alberta, Calgary and Saskatchewan) giving a seminar in each Physics department.
- Collectively, faculty members published 30 refereed articles in national and international journals, and presented a total of 19 conference papers and were involved in organizing a significant number of conferences and workshops.
- Faculty members participated in the larger academic community by reviewing manuscripts and grant applications and serving on grant selection committees.
- Members of the Department also demonstrated public accountability based on the numerous presentations made to schools, community interest groups and the media.
### 2.2 HUMAN RESOURCES

#### Dean’s Office
- **Dean:** Dr. Katherine Bergman
- **Associate Dean (Research):** Dr. Scott Wilson
- **Associate Dean (Academic):** Dr. Brien Maguire
- **Faculty Administrator:** Audrey Perra
- **Coordinator, Science Operations:** Lee Aument
- **Academic Program Advisor:** Raeann Thompson (resigned August), Bonnie Dobson (effective September)
- **Program Coordinator (Computer Science):** Wendy Schick
- **Program Coordinator (Mathematics and Statistics):** Barb Pidkowich (resigned November), Leigh Anne MacKnight (term)
- **Dean’s Office:** Marlene Miller, Ev Pow (retired May), Carol Allen (retired November), Della Allen (term)
- **Student Program Centre:** Sandy Barker (resigned February), Candace Aveyard (resigned May), Jacqui Lockert (effective June), Angela Dohms (effective June), Dana Reed (effective November)

#### Environmental Quality Analysis Laboratory (EQAL): Dr. Björn Wissel
- **Laboratory for Computational Discovery (LCD):** John Jorgensen
- **Trace Analysis Faculty (TAF):** Dr. Renata Raina
- **Science Stores:** Joe Zieger, Marsha Bahador (term)
- **Machine Shop:** Dan Kolybaba
- **Electronics Shop:** Keith Wolbaum
- **Science Technicians**
  - **Technician (Biology):** Joanne Downing, Jackie Rorquist
  - **Technician (Chemistry and Biochemistry):** Chuan Wang
  - **Technician (Geology):** Mets Ritsema

#### Department of Biology
- **Department Head:** Dr. Mark Brigham
- **Graduate Student Coordinator:** Dr. Harold Weger
- **Department Office:** Susie Munro
- **Faculty:**
  - Dr. Neil Ashton, Dr. Britt Hall (on leave), Dr. Susan Lund (resigned), Dr. Chris Somers, Dr. Scott Wilson
  - Dr. Christopher Yost, Dr. Harold Weger, Dr. Richard Manzon
- **PDFs/Research Associates:**
  - Dr. Lynda Bunting, Dr. Bastien Fremaux, Dr. Alain Patoine (resigned)
  - Dr. William Chapco (retired), Dr. Peter Leavitt, Dr. Erin Gillam
  - Dr. Brandon Schamp (resigned), Dr. Kerri Finlay
- **Lab Instructors:**
  - Lauri Lintott, Heather Stanley
  - Terry Ross
- **Technicians:**
  - Joanne Downing, Jackie Rorquist
Part 2: Faculty Overview

Department of Chemistry and Biochemistry

Department Head: Dr. Lynn Mihichuk
Graduate Student Coordinator: Dr. Scott Murphy
Co-op Coordinator: Dr. Andrew Wee
Department Office: Teri Dibble
Faculty:
- Dr. Tanya Dahms
- Dr. Andrew Freywald
- Dr. Scott Murphy
- Dr. Brian Sterenberg
- Dr. Andrew Wee
PDFs/Research Associates:
- Dr. Tatiana Freywald
Lab Instructors:
- Donna Draper
- Mark Tymchak
Technician:
- Chuan Wang

Department of Computer Science

Department Head: Dr. Xue Dong Yang
Graduate Student Coordinator: Dr. Cory Butz
Co-op Coordinator: Wendy Schick
Program Coordinator: Wendy Schick
Department Office: Michelle Kowbel
Faculty:
- Dr. Cory Butz (sabbatical)
- Dr. Brien Maguire
- Dr. Philip Fong (on leave)
- Dr. Howard Hamilton
- Dr. Robert Hilderman
- Dr. Samira Sadaoui (sabbatical)
- Dr. Boting Yang (sabbatical)
- Dr. Yiyu Yao
- Dr. Wojciech Ziarko (sabbatical)
PDFs/Research Associates:
- Dr. Yan Zhao
Lab Instructors:
- Alex Clarke
- Nova Scheidt
Programmer Analyst:
- James Kraushaar
Systems Support:
- Joseph Herbert (term)

Department of Geology

Department Head: Dr. Janis Dale
Graduate Student Coordinator: Dr. Hairuo Qing
Department Office: Van Tran
Faculty:
- Dr. Stephen Bend (sabbatical)
- Dr. Kathryn Bethune
- Dr. Ian Coulson
- Dr. Maria Vélez
PDFs/Research Associates:
- Dr. Badrul Imam
Lab Instructor:
- Evanna Simpson
Technician:
- Mets Ritsema
**Department of Mathematics and Statistics**

Department Head: **Dr. Nader Mobed**  
Graduate Student Coordinator: **Dr. Shaun Fallat**  
Coordinator of Undergraduate Programs: **Dr. Martin Argerami**  
Co-op Coordinator: **Dr. Donald Stanley**  
Actuarial Science Co-op Coordinator: **Mr. Larry Miller**  
Program Coordinator:  
Leigh Anne MacKnight (term)  
Barb Pidkowich (resigned)  
Department Office: **Laurie Cosgrove**  
Faculty:  
Dr. Martin Argerami  
Dr. Ed Doolittle (term)  
Dr. Julianna Erlijman  
Dr. Doug Farenick  
Dr. Remus Floricel  
Dr. Bruce Gilligan  
Dr. Allen Herman  
Mr. Patrick Maidorn  
Dr. Richard McIntosh  
Dr. Donald Stanley  
Dr. Andrei Volodin  
Mr. Patrick Maidorn  
Dr. Augustin-Liviu Mare  
Dr. Dianliang Deng (sabbatical)  
Mr. Peter Douglas  
Dr. Shaun Fallat  
Dr. Chris Fisher (retired)  
Dr. Philip Fong (on leave)  
Dr. Chun-Hua Guo  
Dr. Michael Kozdron  
PDFs/Research Associates:  
Dr. Sasmita Barik  
Dr. Hugo Rodriguez Ordonez  
Lab Instructor: **Sarah Carnochan Naqvi**

**Department of Physics**

Department Head: **Dr. Neil Ashton**  
Graduate Student Coordinator: **Dr. Zisis Papandreou**  
Undergraduate Coordinator: **Dr. Edward Mathie**  
Co-op Coordinator: **Dr. Mauricio Barbi**  
Department Office:  
Della Allen (term)  
Jacqui Lockert (effective November)  
Faculty:  
Dr. Mauricio Barbi  
Dr. Garth Huber  
Dr. George Lolois  
Dr. Nader Mobed  
Dr. Zisis Papandreou  
Dr. Kamal Benslama (on leave)  
Dr. Nikolay Kolev (term)  
Dr. Edward Mathie  
Dr. Pierre Ouimet  
Research Scientist: **Dr. Roman Tacik**  
PDFs/Research Associates:  
Dr. Arthur Kalinowski  
Dr. Nikola Makovec  
Dr. Dinesh Singh  
Dr. Kei-ichi Nagai  
Dr. Andrei Seminov  
Dr. Greg Williams  
Lab Instructors:  
Dr. Peter Bergbusch  
Shaun Szymanski

**Adjunct, Associate and Professor Emeritus:**

The Faculty recognizes the contributions made by emeritus professors, as well as the contribution of adjunct and associate members to the Departments. They are listed in Appendix 1: Professor Emeriti and Appendix 2: Adjunct and Associate Members.

**Sessional Appointments:**

Many staff and faculty are employed in the faculty on a sessional lecturer basis. The Faculty recognizes the contributions made by sessional lecturers to the programs offered by the Faculty of Science. These appointments are listed in Appendix 3.
2.3 FACULTY COMMITTEES

Dean's Executive Committee

Chair (Dean): Dr. Katherine Bergman
Biology Head Dr. Mark Brigham
Chemistry and Biochemistry Head Dr. Lynn Mihichuk
Computer Science Head Dr. Xue Dong Yang
Geology Head Dr. Janis Dale
Mathematics and Statistics Head Dr. Nader Mobed
Physics Head Dr. Neil Ashton
Associate Dean (Academic) Dr. Brien Maguire
Associate Dean (Research) Dr. Scott Wilson
Dean Dr. Katherine Bergman
Faculty Administrator Ms. Audrey Perra

Admissions and Studies Committee

Chair (Associate Dean Academic): Dr. Brien Maguire
Biology Dr. Harold Weger (2009)
Chemistry and Biochemistry Dr. Brian Sterenberg (2011)
Computer Science Dr. Philip Fong (on leave) (2010)
Geology Dr. Robert Hilderman (interim replacement)
Mathematics and Statistics Dr. Karen Meagher (2011)
Physics Dr. Edward Mathie (2009)
Dean Ex-Officio Dr. Katherine Bergman

Dean's Outreach Committee

Chair (Dean): Dr. Katherine Bergman
Biology Dr. Mark Brigham
Chemistry and Biochemistry Dr. Scott Murphy
Computer Science (Program Coordinator) Ms. Wendy Schick
Geology Dr. Stephen Bend
Mathematics and Statistics (Program Coordinator) Ms. Leigh Anne MacKnight
Physics Mr. Shaun Szymanski
Associate Dean (Academic) Dr. Brien Maguire
Associate Dean (Research) Dr. Scott Wilson
Student Program Centre (Academic Program Advisor) Ms. Raeanne Thompson
Faculty Administrator Ms. Audrey Perra

Library Committee

Biology Dr. Britt Hall
Chemistry and Biochemistry Dr. Tanya Dahms
Computer Science Dr. Philip Fong
Geology Dr. Stephen Bend
Mathematics and Statistics Dr. Andrei Volodin
Physics Dr. Garth Huber
Dean Ex-Officio Dr. Katherine Bergman

Nominating Committee

Chemistry and Biochemistry Dr. Allan East (2010)
Computer Science Dr. Robert Hilderman (2009)
Mathematics and Statistics Dr. Patrick Maidorn (2010)
Part 2: Faculty Overview

Safety Committee
Chair (Faculty Administrator): Audrey Perra
Biology Faculty Member Dr. Christopher Yost
Chemistry and Biochemistry Faculty Member Dr. Brian Sterenberg
Geology Faculty Member Dr. Stephen Bend
Physics Faculty Member Dr. Edward Mathie
Lab Instructor Representative Mr. Henry Yee
Graduate Student Representative Mr. Ryan Fisher
Biology Technician Ms. Jackie Rorquist
Chemistry and Biochemistry Technician Mr. Chuan Wang
Geology Technician Mr. Mets Ritsema
Computer Science Program Coordinator Ms. Wendy Schick
Mathematics and Statistics
   Program Coordinator Ms. Leigh Anne MacKnight
Coordinator, Science Operations Mr. Lee Aument
Storekeeper, Science Stores Mr. Joe Zieger
Human Resources Health
   and Safety Consultant Ms. Chris Dehm

Scholarship Committee
Chair (Associate Dean Academic): Dr. Brien Maguire
Biology Dr. Richard Manzon (2011)
Computer Science Dr. Samira Sadaoui (2009)
Mathematics and Statistics Dr. Bruce Gilligan (2009)
Dean Ex-Officio Dr. Katherine Bergman

Student Appeals Committee
Biology Dr. Richard Manzon (2011)
Chemistry and Biochemistry Dr. Andrew Freywald (2009)
Computer Science Dr. David Gerhard (2010)
Geology Dr. Kathryn Bethune (2009)
Mathematics and Statistics Dr. Remus Floricel (2008)
Physics Dr. Mauricio Barbi (2010)
Dean Ex-Officio Dr. Katherine Bergman
Associate Dean (Academic) Ex-Officio Dr. Brien Maguire

Faculty Representatives to Other Faculties
Faculty of Arts Dr. Tanya Dahms (Chemistry and Biochemistry)
   Dr. Xue Dong Yang (Computer Science)
Faculty of Business Administration Mr. Peter Douglas (Mathematics and Statistics)
Faculty of Education Dr. Renata Raina (Chemistry and Biochemistry)
   Dr. Larry Saxton (Computer Science)
Faculty of Engineering Dr. Martin Argerami (Mathematics and Statistics)
   Dr. Philip Fong (Computer Science)
Faculty of Fine Arts Dr. Yang Zhao (Mathematics and Statistics)
Faculty of Kinesiology and Health Studies Dr. Guoxiang Chi (Geology)
Faculty of Social Work Dr. Edward Mathie (Physics)
Centre for Continuing Education Ms. Sarah Carnochan Naqvi (Mathematics and Statistics)
2.4 FUNDRAISING

The Faculty of Science gratefully acknowledges the generous donation of the estate of Muriel Evelyn Finlayson, a former Chemistry Laboratory Instructor. This generous gift of $156,000 was designated to support Faculty of Science Scholarship initiatives. The Faculty has announced two new undergraduate research scholarships in her name, the Finlayson Environmental Science Research Scholarship and the Finlayson Computational Science Research Scholarship valued at $5000 each.

Scholarships are awarded annually in the Faculty. The Faculty of Science has ongoing discussions with the University External Relations Office to develop a fundraising strategy. The target for this fundraising program will be to increase the number and value of the scholarships available to students in the Faculty of Science, to develop a Visiting Scholars Program and to support the outreach activities of the Faculty. This will provide increased leverage to recruit and retain high quality faculty members and to attract top quality students into our programs at both the undergraduate and graduate levels. The Department of Biology and the Faculty of Science are partnering to fund the Paul Reigert Graduate Scholarship in Biology.

3.1 CANADA RESEARCH CHAIR

Canada Research Chair Tier 2

Dr. Christopher Somers was appointed Tier 2 Canada Research Chair in "Wildlife and Environmental Mutagenesis" on July 1, 2008. Dr. Somers joined the Department of Biology in October 2006 as an Assistant Professor. His CRC funded research involves examining the potential relationships between environmental exposures and inherited genetic mutations in wildlife and model laboratory species. This program will provide new insights into factors that affect the frequency of inherited genetic mutations. Many environmental contaminants are known to cause DNA damage and cancer, but much less is known about the impact of exposures on germ cells (sperm and eggs), which ultimately provide genetic material to the next generation. Dr. Somers aims to establish a series of wild animal and laboratory systems ranging from worms and frogs to birds and mammals that can act as sentinels for contaminant exposures that cause elevated inherited mutation rates. In addition to his CRC research interests, Dr. Somers studies interactions between humans and wildlife, and the responses of animals to human-modified environments. This includes conservation studies of rare or endangered species, as well as management studies of species perceived to be over-abundant.

3.2 FACULTY MEMBERS

Department of Mathematics and Statistics

Lyle McKee joined the Department of Mathematics and Statistics in July 2008 and was assigned as a term Instructor of Adult Mathematics in the Student Development Centre. Prior to this he worked as a Sessional lecturer of Adult Mathematics for First Nations University of Canada and the University of Regina since 2001. Previous to this he taught High School Mathematics for 31 years, the last 25 of which were spent at Balfour Collegiate in Regina. During this time he taught all levels of Math from grades 9-12 and received numerous awards for teaching excellence and participation. He obtained his B.A. from the University of Saskatchewan in 1969 and his B.E.D. (with distinction) with a major in Special Education from the University of Regina in 1987. Lyle enjoys the challenges of working with adult learners as they pursue their academic goals.
Department of Chemistry and Biochemistry

Dr. Stephen Cheng began working as the Supplemental Instruction Coordinator in August 2008 to implement the SI program for Science. He was appointed Lecturer in the Department of Chemistry and Biochemistry in January 2009. Stephen received his BSc from Santa Clara University in 1992 and completed his PhD at the University of Minnesota in 1998. His research interests include education, electrochemistry and physical inorganic chemistry. Stephen began as a sessional lecturer for the Department of Chemistry and Biochemistry in September 2006 and he immediately fell in love with teaching. He enjoys exploring different teaching methods to help students learn science. Besides teaching, he enjoys travelling and playing the piano.

3.3 Faculty Administrative Staff

Dean’s Office

Anna Bristol was hired at the beginning of September on a two-month term to assist with the organization of our inaugural Science Research Gala held on the 17th of October. Using her knowledge and background in marketing and public relations Anna ably took charge of this event and a successful gala ensued. Thank you for joining us Anna and good luck with your next project!

James Kraushaar became a full-time permanent Programmer Analyst in Science on September 8th. James completed both a Certificate in Computer Science and a BSc (CS) from the University of Regina. He possesses strong technical skills and we had seen these demonstrated firsthand as James had worked for Science on a half-time basis in the Department of Computer Science since September 2007. We are pleased he decided to accept this full-time offer and look forward to the benefit of his excellent problem solving abilities throughout the entire Faculty. As well as his computer knowledge, James is a Certified Telecommunications Technician and is looking forward to using these two skills to support projects for Science. When he’s not in the office James spends time with his wife and four children attending Scouts, Guides, School and music lesson activities.

Science Student Services Office

Angela Dohms joined Science as a Registration Clerk in the Science Student Services Office on a permanent full-time basis effective June 9th. Previous positions Angela has held include being a Customer Care Representative for StarTek as well as a Teaching Assistant for the Department of Geography. Angela obtained her BA from the U of R in 2007 majoring in English and Geography. Being a recent graduate Angela possessed firsthand knowledge and experience of the trials and tribulations of being a U of R student; which provided a direct application to her position. She has been able to grasp our student policies and procedures with ease and possesses a strong ability to work well in a team environment. Out of the office Angela is the layout editor of Nature Views, Nature Saskatchewan’s quarterly newsletter, and is excited to be working with a design program once again. She is also an avid proofreader and continues to fight the literary war on bad grammar.

Dana Reed joined Science on November 17th. She was hired to fill the vacancy created in the Science Student Services Office when Jacqui moved to Physics. Dana is a University of Regina graduate with a Bachelor of Fine Arts degree in Theatrical Performance. After acquiring this degree Dana honed her administrative skills working for the Irish Medicines Board in Dublin and most recently with a posting in the U of R Bookstore. Dana has a pleasant outgoing personality and lends color to the office everyday while being a source of amusement for Angela. She takes on her new tasks with skill and careful attention. When she’s not at work, Dana spends time writing papers and plays for her BA Hons Degree, overseeing public relations for Curtain Razors Theatre and creating seasons for her upcoming theatre company.
Bonnie Dobson’s career at the U of R began in Science in March 2000 and she returned on September 22nd as the Faculty of Science Academic Program Advisor in the Science Student Services Office. While away, she successfully held positions in the Faculty of Arts, the Faculty of Kinesiology and Health Studies and the Faculty of Business Administration. Every position has encompassed some facet of working with students, both undergraduate and graduate. Bonnie’s extensive student experience and familiarity with the U of R meant she was able to hit the ground running and we are grateful she did. This was the third of three positions in this office to change in three months. Bonnie is a confident self-starter and has already made advances to improve our student processes. In her spare time Bonnie exercises the academic part of her brain taking university classes, the creative part by painting abstract paintings, and the adventurous side by riding her Harley.

Department of Mathematics and Statistics

Leigh Anne MacKnight was hired as the Program Coordinator in the Department of Mathematics and Statistics in January 2008 to fill the one-year term when Barb Pidkowich went to Financial Services. Leigh Anne stepped into this busy office setting and made a positive contribution to all the assignments placed before her. At the end of December, Leigh Anne decided to accept a Sessional Lecturer position in the same department effective January 1, 2009. Thank you for your dedicated efforts through the year Leigh Anne and we are glad you decided to stay in Science and continue to share your experience and expertise.

Department of Physics and the Dean’s Office

Jacqui Lockert began working as a Registration Clerk in the Science Student Services Office effective June 2nd. Jacqui arrived with years of administrative experience as she had previously held a variety of office assistant positions in Saskatchewan and Ontario. She had planned and coordinated multi-faceted events and the organizational skills and customer relations abilities she learned through these activities provided a solid background for her work at the university. Though this was Jacqui’s first position at a university, she quickly learned many university processes and procedures by the fall and was the successful candidate for another position in Science. On November 17th, Jacqui was appointed to replace Carol Allen as the Office Administrator for the Department of Physics and the Dean’s Office. Jacqui is tackling the challenges of this new role with energy and enthusiasm. When she is away from the university Jacqui enjoys dance lessons, camping, boating, and traveling with her husband Colin and her three teenagers.

Della Allen started in Science on September 8th in a term position as an Office Administrator for the Department of Physics and the Dean’s Office. Della is a familiar friendly face at the University of Regina and has held many administrative roles on campus including postings in the Centre for Continuing Education (formerly University Extension), the Registrar’s Office, the Faculty of Graduate Studies and Research, and the Faculty of Kinesiology and Health Studies. Della was able to help us out until the middle of November to cover Carol’s duties while Carol was on leave.
4.1 ENROLLMENT TRENDS

There was a 3.1% decrease in the number of Science credit hours taught and a 4.1% decrease in the number of students in Science during 2008 as shown in Tables 4.1 and 4.2. The number of students enrolled through the University of Regina fell by 2.4% from last year, while the number of students enrolling through the federated colleges fell by 6.4%. About 41% of all students in Science are registered through the three Federated Colleges, a decrease of 1% from last year.

Table 4.1 Registration Credit Hours:

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<td>(13955)</td>
<td>2224</td>
<td>(2189)</td>
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<td>(15882)</td>
</tr>
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<td>(273)</td>
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<td>(0)</td>
<td>336</td>
<td>(273)</td>
</tr>
<tr>
<td>Luther</td>
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<td>(12)</td>
<td>1071</td>
<td>(1188)</td>
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<td>(1020)</td>
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<td>(168)</td>
<td>810</td>
<td>(771)</td>
</tr>
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<td>University</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campion</td>
<td>579</td>
<td>(586)</td>
<td>162</td>
<td>(178)</td>
<td>618</td>
<td>(628)</td>
</tr>
<tr>
<td>Luther</td>
<td>229</td>
<td>(250)</td>
<td>67</td>
<td>(63)</td>
<td>256</td>
<td>(254)</td>
</tr>
<tr>
<td>First Nations</td>
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<td>(200)</td>
<td>46</td>
<td>(48)</td>
<td>183</td>
<td>(184)</td>
</tr>
<tr>
<td>Semester Total</td>
<td>15781</td>
<td>(16169)</td>
<td>2422</td>
<td>(2369)</td>
<td>17303</td>
<td>(18114)</td>
</tr>
<tr>
<td>Total in 2008 (2007)</td>
<td>35506</td>
<td>(36652)</td>
<td></td>
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</tr>
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</table>

Table 4.2 Registered Students:

<table>
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<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>579</td>
<td>(586)</td>
<td>162</td>
<td>(178)</td>
<td>618</td>
<td>(628)</td>
</tr>
<tr>
<td>Campion</td>
<td>229</td>
<td>(250)</td>
<td>67</td>
<td>(63)</td>
<td>256</td>
<td>(254)</td>
</tr>
<tr>
<td>Luther</td>
<td>160</td>
<td>(200)</td>
<td>46</td>
<td>(48)</td>
<td>183</td>
<td>(184)</td>
</tr>
<tr>
<td>First Nations</td>
<td>5</td>
<td>(11)</td>
<td>0</td>
<td>(0)</td>
<td>6</td>
<td>(7)</td>
</tr>
<tr>
<td>Semester Total</td>
<td>973</td>
<td>(1047)</td>
<td>275</td>
<td>(289)</td>
<td>1063</td>
<td>(1073)</td>
</tr>
<tr>
<td>Total in 2008 (2007)</td>
<td>2311</td>
<td>(2409)</td>
<td></td>
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</table>

Of the students registered in degree programs in the Fall 2008 semester (Table 4.3) 4.8% are in an Honours program and 8.4% are in a Co-op or Internship program. A large number of students (26%) are pre-professional students. The number of undecided students continues to decline.

Table 4.3 Students Registered By Degree or Certificate:

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<tr>
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<th></th>
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<tr>
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<tr>
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<td>625</td>
<td>588</td>
<td>604</td>
<td>548</td>
<td>628</td>
</tr>
<tr>
<td>BSc (Co-op)</td>
<td>75</td>
<td>63</td>
<td>65</td>
<td>53</td>
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<td>BSc Honours</td>
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<td>33</td>
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<td>34</td>
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<td>BSc Honours (Co-op)</td>
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<td>3</td>
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<tr>
<td>BSc (post diploma)</td>
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<td>2</td>
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<td>2</td>
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<td>3</td>
</tr>
<tr>
<td>BSc Env Biol</td>
<td>13</td>
<td>12</td>
<td>12</td>
<td>14</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>BSc (Intern)</td>
<td>10</td>
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<td>17</td>
<td>14</td>
<td>13</td>
<td>7</td>
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<td>BSc SSD</td>
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<td>1</td>
<td>3</td>
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<tr>
<td>BSc SSD (Co-op)</td>
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<td>1</td>
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<td>4</td>
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<td>PreProfessional</td>
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<td>255</td>
<td>296</td>
<td>250</td>
<td>277</td>
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<tr>
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<td>61</td>
<td>51</td>
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<td>Certificate in HIS</td>
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<td>1</td>
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<td>TOTAL</td>
<td>1112</td>
<td>1174</td>
<td>1047</td>
<td>1071</td>
<td>973</td>
<td>1063</td>
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## Part 4: Undergraduate Programs

### Table 4.4 Majors in 2008-30:

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<th>Major</th>
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<th>Luther</th>
<th>U Regina</th>
<th>Total</th>
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<td>Actuarial Science</td>
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<td>Biology</td>
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<td>69</td>
<td>114</td>
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<td>7</td>
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<td>7</td>
</tr>
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<td>—</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Biology/Statistics</td>
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<td>—</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Computer Science/Mathematics</td>
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</tr>
<tr>
<td>Geology/Geography</td>
<td>1</td>
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<td>—</td>
<td>—</td>
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</tr>
<tr>
<td>Mathematics/Statistics</td>
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<td>—</td>
<td>—</td>
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<tr>
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<td>6</td>
<td>11</td>
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<tr>
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<td>16</td>
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<td>BMLS</td>
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<td>1</td>
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<tr>
<td>BSc Software Systems Dev</td>
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<tr>
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<td>4</td>
</tr>
<tr>
<td>Certificate in HIS</td>
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<td>7</td>
<td>4</td>
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<td>51</td>
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<td>—</td>
<td>2</td>
<td>8</td>
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<tr>
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<td>—</td>
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<td>Special Student</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>256</td>
<td>6</td>
<td>183</td>
<td>618</td>
<td>1063</td>
</tr>
</tbody>
</table>

In 2008, 143 degrees and 5 certificates were awarded (Table 4.5). This compares to 151 degrees and 8 certificates in 2007. A breakdown of degrees and certificates by area is found in Table 4.6.

### Table 4.5 Degrees and Certificates Awarded in 2008 (2007):

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</tr>
</thead>
<tbody>
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<td>108 (107)</td>
<td>20 (22)</td>
<td>128 (129)</td>
</tr>
<tr>
<td>BSc (Hon)</td>
<td>13 (21)</td>
<td>2 (1)</td>
<td>15 (22)</td>
</tr>
<tr>
<td>Certificate in CS</td>
<td>3 (5)</td>
<td>2 (2)</td>
<td>5 (7)</td>
</tr>
<tr>
<td>Certificate in HIS</td>
<td>0 (1)</td>
<td>0 (0)</td>
<td>0 (1)</td>
</tr>
<tr>
<td>Total Degrees</td>
<td>121 (128)</td>
<td>22 (23)</td>
<td>143 (151)</td>
</tr>
<tr>
<td>Total Certificates</td>
<td>3 (6)</td>
<td>2 (2)</td>
<td>5 (8)</td>
</tr>
</tbody>
</table>

Of the 143 BSc degrees awarded, 19 were to students in the Co-operative Education Program and 11 were in the Internship Program in Actuarial Science.
Table 4.6 Degrees and Certificates Awarded by Area in 2008:

<table>
<thead>
<tr>
<th>Area</th>
<th>Spring</th>
<th>Fall</th>
<th>Total</th>
<th>% of degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuarial Science</td>
<td>11</td>
<td>1</td>
<td>12</td>
<td>8.4</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>9</td>
<td>2</td>
<td>11</td>
<td>7.7</td>
</tr>
<tr>
<td>Biochemistry/Chemistry</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>—</td>
</tr>
<tr>
<td>Biology</td>
<td>29</td>
<td>3</td>
<td>32</td>
<td>22.4</td>
</tr>
<tr>
<td>Biology/Biochemistry</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Biology/Geography</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>—</td>
</tr>
<tr>
<td>Chemistry</td>
<td>7</td>
<td>4</td>
<td>11</td>
<td>7.7</td>
</tr>
<tr>
<td>Computer Science</td>
<td>24</td>
<td>6</td>
<td>30</td>
<td>21.0</td>
</tr>
<tr>
<td>Computer Science/Mathematics</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Electronic Physics</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>—</td>
</tr>
<tr>
<td>Environmental Biology</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td>Geography</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>5.6</td>
</tr>
<tr>
<td>Geology</td>
<td>15</td>
<td>2</td>
<td>17</td>
<td>11.9</td>
</tr>
<tr>
<td>Mathematics</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td>Mathematics/Statistics</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Physics</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>—</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>3.5</td>
</tr>
<tr>
<td>Statistics/Economics</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Certificate in CS</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>—</td>
</tr>
<tr>
<td>Certificate in IHS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>—</td>
</tr>
</tbody>
</table>

As Table 4.7 shows, the number of credit hours taught by University of Regina departments in Science is down by 2.8% in 2008. The number of credit hours taught by Campion, Luther and FNUC is down by 5.3%.

Table 4.7 Credit Hours Taught By Academic Areas:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>1681</td>
<td>1902</td>
<td>1826</td>
<td>117</td>
<td>111</td>
<td>66</td>
<td>1995</td>
<td>2004</td>
<td>2042</td>
</tr>
<tr>
<td>Biochemistry/Chemistry</td>
<td>2363</td>
<td>2291</td>
<td>2330</td>
<td>138</td>
<td>92</td>
<td>118</td>
<td>2308</td>
<td>2299</td>
<td>2492</td>
</tr>
<tr>
<td>Computer Science</td>
<td>2062</td>
<td>2359</td>
<td>2613</td>
<td>444</td>
<td>487</td>
<td>447</td>
<td>2682</td>
<td>2896</td>
<td>3197</td>
</tr>
<tr>
<td>Geology</td>
<td>1393</td>
<td>1278</td>
<td>1315</td>
<td>188</td>
<td>234</td>
<td>221</td>
<td>1509</td>
<td>1432</td>
<td>1505</td>
</tr>
<tr>
<td>Mathematics/Statistics</td>
<td>5110</td>
<td>4946</td>
<td>5208</td>
<td>1181</td>
<td>1184</td>
<td>1015</td>
<td>5242</td>
<td>5825</td>
<td>6267</td>
</tr>
<tr>
<td>Physics</td>
<td>1204</td>
<td>1179</td>
<td>1384</td>
<td>156</td>
<td>81</td>
<td>9</td>
<td>1350</td>
<td>1426</td>
<td>1519</td>
</tr>
<tr>
<td>Campion</td>
<td>261</td>
<td>273</td>
<td>318</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>336</td>
<td>273</td>
<td>303</td>
</tr>
<tr>
<td>Luther</td>
<td>825</td>
<td>921</td>
<td>974</td>
<td>9</td>
<td>12</td>
<td>6</td>
<td>1071</td>
<td>1188</td>
<td>981</td>
</tr>
<tr>
<td>First Nations University of Canada</td>
<td>882</td>
<td>1020</td>
<td>801</td>
<td>189</td>
<td>168</td>
<td>234</td>
<td>810</td>
<td>771</td>
<td>879</td>
</tr>
<tr>
<td>Total</td>
<td>15781</td>
<td>16169</td>
<td>16769</td>
<td>2422</td>
<td>2369</td>
<td>2116</td>
<td>17303</td>
<td>18114</td>
<td>19185</td>
</tr>
</tbody>
</table>

4.2 STUDENT RECRUITMENT AND RETENTION STRATEGIES

The Faculty of Science is actively involved in school (elementary and secondary) and community organization programs. The Faculty sponsors various functions as well as being involved in science and career fairs. A number of faculty members visit classrooms or host classes on campus. The interaction with students early in their careers makes us visible to them and provides them with contact people at the University to discuss their options. The Faculty has been exploring retention strategies and will be working on increasing the feeling of community among student groups. This Supplemental Instruction was implemented to support instruction in key courses in 2008. The objective is to enhance the learning experience for students in Science.
4.3 CO-OPERATIVE EDUCATION PROGRAM

The Faculty offers programs in co-operative university education in Biochemistry, Chemistry, Computer Science, Mathematics, Physics and Statistics with Biology starting in 2008. Students spend alternate four-month periods taking university courses and working in related, salaried jobs. There were about 65 students registered in the co-operative education program this year. Actuarial Science offers an internship program whereby students can take jobs in cooperating companies during their academic program. This program is growing with about 16 students registered in 2007.

4.4 DEPARTMENTAL PROGRAMS

The following undergraduate programs are available:

4.4.1 Actuarial Science BSc;
4.4.2 Biology BSc and BSc (Hons) including areas of concentration in Cellular & Molecular Biology and Ecology & Environmental Biology;
4.4.3 Biology/Biochemistry BSc;
4.4.4 Biology/Geography BSc;
4.4.5 Biology/Statistics BSc;
4.4.6 Environmental Biology (with SIAST Woodland Campus) BSc and BSc (Hons);
4.4.7 Biochemistry BSc and BSc (Hons);
4.4.8 Biochemistry/Chemistry BSc;
4.4.9 Chemistry BSc and BSc (Hons);
4.4.10 Chemistry/Education Combined BEd/BSc;
4.4.11 Chemical Technology (with SIAST Kelsey Campus) BSc;
4.4.12 Computer Science Certificate, BSc and BSc (Hons);
4.4.13 Computer Science Post-Diploma BSc (after diplomas from SIAST Kelsey and Palliser Campuses);
4.4.14 Computer Science Software Systems Development, BSc;
4.4.15 Computer Science/Mathematics BSc and BSc (Hons);
4.4.16 Electronic Physics;
4.4.17 Geography BSc and BSc (Hons);
4.4.18 Combined Geography/Geology BSc and BSc (Hons);
4.4.19 Geology BSc and BSc (Hons);
4.4.20 Combined Geology/Geography BSc and BSc (Hons);
4.4.21 Indigenous Health Studies Certificate;
4.4.22 Mathematics BSc and BSc (Hons);
4.4.23 Mathematics/Education Combined BEd/BSc;
4.4.24 Mathematics/Computer Science BSc and BSc (Hons);
4.4.25 Mathematics/Statistics BSc;
4.4.26 Medical Imaging Degree Program (with SIAST Kelsey Campus);
4.4.27 Medical Laboratory Science Degree Program (with SIAST Kelsey Campus);
4.4.28 Physics BSc and BSc (Hons);
4.4.29 Physics/Education Combined BEd/BSc;
4.4.30 Applied Industrial Physics with Emphasis in Computation and Physical Modeling BSc;
4.4.31 Applied Industrial Physics with Emphasis in Electronics and Modern Physics BSc;
4.4.32 Statistics BSc;
4.4.33 Statistics/Economics BSc

There are also Minors available in Biochemistry, Biology, Chemistry, Computer Science, Geology, Mathematics, Physics and Statistics.

4.5 UNDERGRADUATE SOCIETIES

The academic year started off with a Pizza Social organized by the Student Services Office. This event was for all Science students and was held on November 3, 2008. A large number of Science students attended including representatives from Luther, Campion and First Nations University, as well as a number of faculty and staff. Student Societies were given the opportunity to set up their displays and use the event to recruit new members. The faculty has seven student societies – the Biology Undergraduate Student Society (BUGS), the Biochemistry and Chemistry
Student Association (BCSA), the Computer Science Student Society (CSSS), the Mathematics, Actuarial Science, Statistics Student Society (MASS), the D.M. Kent Club (Geology), the Physics Student Society and the Pre-Health Club. The individual societies have been busy over the course of the year with their own initiatives and events.

4.6 UNDERGRADUATE SCHOLARSHIPS

4.6.1.1 The University Prize in Science was awarded to Sarah Plosker BSc Combined degree in Mathematics and Statistics (Co-operative Education Program) with Great Distinction at the Spring 2008 Convocation. At the Fall 2008 Convocation the University Prize in Science was awarded to Qi Xie BSc Computer Science (Co-operative Education Program) with Great Distinction.

4.6.1.2 The Faculty of Science 10th Anniversary Entrance Scholarship was awarded to Nathan Magnus.

4.6.1.3 Chelsea Poncsak received the Coca-Cola Student Award.

4.7 DEAN’S HONOUR LIST (Campion*, Luther**, First Nations University of Canada***)

**Winter 2008**

Andersen, Melissa**
Baidoo, Kezia
Bailey, Gillian
Bazin, Paul*
Block, Sarah
Bodani, Vivek
Budd, Alison**
Christie, Marina
Colpitts, Che
Culig, Jennifer*
Dreger, Jill
Dressler, Nicole*
Du, Chen
Durnaine, Chance

Esclaran, Peter*
Filipic, Lana
Fink, Kristen*
Gurney-Dunlop, Tanner
Guo, Xiao Hai
Hart, Caroline
Healey, Ryan
Hladky, Stephen**
Johnson, Eve Marie**
Kelly, Jacob**
Kingston, Brent*
Lash, Colin*

Li, Hao
Liang, Yanlin
Long, Michelle**
Malawski, Andrew*
Martin, Kristen*
Miller, Lana**
Moore, Ian*
Nguyen, Rita*
Nie, Fan
Nordick, Kendra*
O’Krancy, Steven*
Oldershaw, Anastasia

Oleskiw, Timothy*  
Overli-Domes, Taffeta
Petrychyn, Kevin
Plosker, Sarah**
Pollard, Janette
Ramsey, Christopher
Schauenberg, Jennifer
Schmuecker, Johanan
Sinclair, Caitlin*
Smith, Shari**
St. Onge, Caleigh

Stark, Kevin
Talbot, Mark**
Thomas Amy*
Van Nes, Dalene
Verhelst, Laura*
Wang, Lingshu
Weininger, Dean
Wilson, Lesley*
Wolfe, Kassidy**
Woolhouse, Carter**
Wu, Qiong

**Summer 2008**

Hicks, Tara
Nie, Fan

Wiens, Luke

Wu, Qiong

Xu, Xiaolong

**Fall 2008**

Abbas, Fatima
Abbas, Mariam
Ahmed, Syed
Bailey, Gillian
Bailey, Robert
Baron, Kristin*
Bazin, Christine*
Beattie, Kayla
Bourgault, Joanne
Brown, Michael
Budd, Allison**
Cabigon, Neal*
Chow, Alicia
Chow, Sidney*

Cote, Leonard*
Dean, Jonathan
Dreger, Sasha**
Du, Chen
Ferguson, Jackie*
Filipic, Lana
Fink, Kristin*
Herauf, Patrick
Hui, Tiffany
Hun, Loren
Hunter, Kristine
Jo, Patricia*
Johnson, Eve Marie**
Kruzeniski, Steven*

Lackhan, Alyssa**
Laprairie, Mark
Lawn, Rebecca**
Leslie, Steven
Liu, Xing
Lohans, Christopher
Madden, Christopher***
Magnus, Samantha*
Malawski, Andrew*
Marcotte, Ryan
McMillan, Kaitlyn**
Misskey, Jonathan**

Musleh, Jordan
Natrasany, Sarah
Nel, Cara-Lee**
Nguyen, Nghia
Nguyen, Thomas*
Nie, Fan
Olson, Lanna
Parsons, Sasha*
Ploker, Sarah**
Ramadan, Eman
Reeson, Marc*
Sahlu, Samra
Sauchyn, Hannah**

Smith, Patricia**
Song, Xiaopu
Spencer, Kali*
St. Onge, Caleigh
Tabin, Camolyn*
Talbot, Mark**
Tuchscherer,
Jonathon*
Vinge, Sarah
Verhelst, Laura*
Wasyliw, Sanchea
Wien, Luke
Wolfe, Kassidy**
Woolhouse, Carter**
Graduate education is an integral part of Faculty of Science activity. Graduate students obtain training in scientific research by working alongside professors in the laboratory and the field. Much of the research undertaken by scientists could not happen without the support of graduate students. To underscore the crucial role of graduate education in research, NSERC requires that each research program receiving NSERC funding be structured to provide for the training of highly qualified personnel.

Graduate students enjoy individual attention from their supervising professors and benefit from low student-to-professor ratios. The Faculty of Science fosters a collegial atmosphere whereby students and professors interact as colleagues. The student body comprises a mix of national and international students, which enhances the learning experiences for each individual and brings useful expertise to the province.

The Faculty of Science offers programs leading to the Master of Science (MSc) and Doctor of Philosophy (PhD) degrees. The MSc degree typically requires one or two years of study after the BSc, while the PhD normally takes four years to complete after the BSc or three after the MSc.

### 5.1 Enrollment Trends

Recruitment of high quality graduate students is a challenge for the Faculty of Science. Many of the best undergraduate students in Science pursue graduate work elsewhere and it is a challenge to attract high-quality graduate students from other regions of Canada. However, this is somewhat compensated for by the high international demand for our graduate programs. The presence of international students enhances the University and community at large, and enables the Faculty of Science to fulfill its mandate of research and graduate education.

<table>
<thead>
<tr>
<th>Program</th>
<th>Students Registered 2008</th>
<th>Degrees Conferred 2008</th>
<th>Students Registered 2007</th>
<th>Degrees Conferred 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>21</td>
<td>3</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>Chemistry and Biochemistry</td>
<td>10</td>
<td>2</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science</td>
<td>57</td>
<td>13</td>
<td>66</td>
<td>8</td>
</tr>
<tr>
<td>Geology</td>
<td>14</td>
<td>1</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>17</td>
<td>3</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td>Physics</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>22</td>
<td>125</td>
<td>23</td>
</tr>
<tr>
<td>PhD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Chemistry and Biochemistry</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Computer Science</td>
<td>14</td>
<td>6</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Geology</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>7</td>
<td>0</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Physics</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>7</td>
<td>34</td>
<td>7</td>
</tr>
</tbody>
</table>

In addition to graduate students, the Faculty also trains postdoctoral fellows, individuals who hold PhDs and receive advanced research training for 2-4 years before moving on to permanent positions. Postdoctoral fellows were trained in Biology (5), Chemistry (4), Mathematics (2) and Physics (5).

### 5.2 Departmental Programs

A brief overview of the graduate programs in each department in the Faculty of Science is provided below.

#### Department of Biology

The Department of Biology offers graduate programs in areas of active research by faculty members: moss developmental regulation, insect evolutionary genetics, bacterial/plant interactions, food microbiology, spatial analysis of ecological systems, plant respiratory metabolism, regulation of vertebrate endocrine systems, comparative and ecological physiology of fish and invertebrates, plant community ecology, terrestrial vertebrate ecology and limnology. The Department is equipped with modern research laboratories, including plant and aquatic facilities, a herbarium, a field station in Cypress Hills (southwestern Saskatchewan), the CFI-sponsored Environmental Quality Analysis Laboratory, and long-term ecological research plots in the Research Park. The research capabilities of the Department
Part 5: Graduate Program

are enhanced through association with local, provincial and federal government facilities and scientists, as well as research connections with a number of other universities.

**Department of Chemistry and Biochemistry**

Graduate studies in the Chemistry and Biochemistry Department involves programs in selected areas of analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, physical chemistry, computational chemistry and theoretical chemistry.

**Department of Computer Science**

The Department of Computer Science offers programs of study involving interdepartmental, multi-institutional and inter-institutional collaboration that has attracted faculty members and graduate students from all over the world. Students may pursue full-time or part-time graduate study leading toward the MSc and PhD degrees. The MSc program contains a project option and a co-op option that will be of interest, especially to IT practitioners. Students are currently conducting research in the areas of multimedia, music and acoustics, pattern recognition, knowledge representation, knowledge discovery in databases, temporal reasoning, constraint programming, machine learning, rough sets and applications, uncertainty management, distributed systems, parallel processing, neural networks, theory of computing, computational geometry, virtual reality and computer animation, interface design, data communication, internet applications, structured text processing, data security, software security, network security, formal specification, software engineering, information theory, network communications, and agent technologies. The Department is well-equipped with modern computing facilities including the CFI-sponsored Laboratory for Computational Discovery and numerous SGI and SUN workstations. For parallel and graphics computing research, there is a 24-processor SGI Onyx2 graphics supercomputer.

**Department of Geology**

The Department of Geology offers graduate programs in fields that include petrological, geochemical, igneous, metamorphic, mineralogical, metallogenic, and structural studies including the Canadian Shield, Phanerozoic carbonate, clastic and evaporite sequences, as well as coal, petroleum, uranium and Quaternary studies. Resources are available for particular western regional projects. Close co-operation with Saskatchewan Industry and Resources provides excellent opportunities for field-based studies in the Shield, and access to sedimentary cores and data relating to the Phanerozoic rocks of Saskatchewan. On campus, staff and students of the department work in collaboration with other departments and with Prairie Adaptation Research Collaborative (PTRC), Petroleum Technology Research Center (PARC), Canadian Plains Research Centre (CPRC) and Communities of Tomorrow.

**Department of Mathematics and Statistics**

The Department of Mathematics and Statistics offers graduate programs in a wide variety of areas in pure and applied mathematics, and statistics. Recent graduate students have completed degrees in the areas of statistics, matrix theory, number theory and operator algebras. Graduate students enjoy the guidance of several faculty experts and participate in field-specific seminars.

**Department of Physics**

The Department of Physics offers graduate degrees in the areas of Experimental and Theoretical Subatomic Physics, and Astronomy. Faculty members and graduate students pursue their research locally and at locations elsewhere in Canada, the United States and Europe. The Department is an associate member of the TRIUMF subatomic physics laboratory located at the University of British Columbia in Vancouver, B.C. The Department is also a member of ATLAS at CERN, Switzerland, and has a close relationship with the Jefferson Laboratory (formerly the Continuous Electron Beam Accelerator Facility) in Newport News, Virginia, U.S.A.

### 5.3 GRADUATE SCHOLARSHIP AND SUPPORT

Graduate education in Science is demanding and intensive, and normally continues through twelve months of the year. Full-time graduate students devote most of their time to their studies and research, making it difficult for these students to hold part-time jobs. Support for graduate students is made available through the research grants of supervising professors, the Faculty of Graduate Studies and Research, and government and private-sector agencies.

The Faculty of Graduate Studies provides financial support (Table 5.2) for graduate students through scholarships and teaching assistantships.
Part 5: Graduate Program

<table>
<thead>
<tr>
<th>Table 5.2 Graduate Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summer 2008</strong></td>
</tr>
<tr>
<td>TF</td>
</tr>
<tr>
<td>Biology</td>
</tr>
<tr>
<td>Chemistry and Biochemistry</td>
</tr>
<tr>
<td>Computer Science</td>
</tr>
<tr>
<td>Geology</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
</tr>
<tr>
<td>Physics</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

M – Masters    PhD – Doctoral * Graduate Scholarships include post NSERC enhancement scholarships

5.4 NATIONAL SCHOLARSHIPS AND FELLOWSHIPS

NSERC funds promising graduate students (Table 5.3) through the Canada Graduate Scholarship (CGS) and Post-Graduate Scholarship (PGS) programs. The value of the CGS-M (Master’s) is $17,500 for one year; PGS-M is $17,300. The value of the PGS-D (Doctoral) is $21,000 annually for two years, and the PGS-D3 is $21,000 for three years.

Promising undergraduate students receive Undergraduate Summer Research Awards (Table 5.4) which allow them to gain research experience during the summer. Each award is for $4,500.

<table>
<thead>
<tr>
<th>Table 5.3 PGS and CGS Recipients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category</strong></td>
</tr>
<tr>
<td>PGS M</td>
</tr>
<tr>
<td>PGS M</td>
</tr>
<tr>
<td>CGS M</td>
</tr>
<tr>
<td>CGS M</td>
</tr>
<tr>
<td>PGS-D2</td>
</tr>
<tr>
<td>PGS-D2</td>
</tr>
<tr>
<td>PGS-D3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 5.4 NSERC Summer Scholarships</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student’s Name</strong></td>
</tr>
<tr>
<td>Donald, Teslin</td>
</tr>
<tr>
<td>Misskey, Jonathan</td>
</tr>
<tr>
<td>Stobbs, Meghan</td>
</tr>
<tr>
<td>Overli-Domes, Taffeta</td>
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<tr>
<td>Kruzeniski, Steven</td>
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<td>Fortney, Ashley</td>
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<td>Hicks, Tara</td>
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<td>Nguyen, Thomas</td>
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<td>Abbas, Fatima</td>
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<td>Lohans, Christopher</td>
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<td>Stark, Kevin</td>
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<td>Urbanski, Michelle</td>
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<td>Laprairie, Mark</td>
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<td>Lash, Colan</td>
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<td>Plosker, Sarah</td>
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<td>Barrett, Taylor</td>
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<td>Schwark, Justin</td>
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<tr>
<td>Petrychny, Kevin</td>
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<tr>
<td>Fortowsky, Bridget</td>
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</tbody>
</table>
Research is a fundamental activity in the Faculty of Science. Through research, the Faculty, the University and the Province of Saskatchewan are significantly involved in the creation and dissemination of scientific knowledge. It is through research and teaching that high-level expertise is maintained and developed in the province.

In 2008 faculty members and students published 249 scientific papers in journals that were circulated throughout the world. One e-book, one book and 38 technical reports were produced.

Scientific papers are published only after peer-review, which is an evaluation by experts in the field at other universities. Faculty members reviewed 267 papers for national and international journals. Peer review is organized by the editors of scientific journals: 17 editorships are held by members of the Faculty.

Because of the relatively long time required for publishing, it is vital to communicate research findings rapidly through talks at meetings, and 227 presentations were made at national and international meetings. 107 of these were invited by conference organizers, indicating our faculty members are recognized as leaders in their fields.

Research funding from national and international agencies is awarded on the basis of international activity, as evidenced by the quantity and quality of scientific publications. The Faculty received 113 research grants from national agencies, as well as 6 from international agencies. In addition, faculty members reviewed 21 grant applications on behalf of those agencies.

6.1 DEPARTMENTAL RESEARCH ACTIVITIES

A brief overview of the research activities and expertise in each department in the Faculty of Science is presented.

Department of Biology

Research interests include aquatic and terrestrial ecology, genetics, developmental biology, and microbiology. Field studies for a number of research projects are undertaken around the world. In addition, research by members of the Department is relevant to the environmental, health and economic concerns of Saskatchewan including research on the quality of freshwater, climate change, drought, ecosystem variability and native plant ecology. The Department is home to a Tier 1 Canada Research Chair (Leavitt), two Tier 2 Canada Research Chairs (Somers and Yost), and a University Faculty Award holder (Hall). Biology attracts a large complement of researchers at levels varying from undergraduate students through to postdoctoral fellows.
Part 6: Research

The expertise of the Department can be broadly described as follows:

Biogeochemistry: B. Hall
Environmental biology: M. Brigham, P. Leavitt, S. Lund, C. Somers, S. Wilson
Microbiology: C. Yost
Physiology, development and behaviour: N. Ashton, M. Brigham, R. Manzon, C. Somers, H. Weger

Department of Chemistry and Biochemistry

Research interests of the Department of Chemistry and Biochemistry include analytical and environmental chemistry, asymmetric synthesis and methodology, biophysical biochemistry, cell biochemistry, photochemistry, theoretical and computational chemistry, chemical biology, inorganic chemistry, organometallic chemistry and catalysis, nucleic acid biochemistry, enzymology and protein chemistry.

The expertise of the Department is broadly grouped as follows:

Analytical chemistry: R. Raina
Biochemistry: T. Dahms, A. Freywald, R. Kelln, D.-Y. Suh
Inorganic chemistry/Organometallic (includes Computational Chemistry): L. Mihichuk, B. Sterenberg
Physical (includes Physical Organic) and Theoretical/Computational Chemistry: A. East, S. Murphy
Organic synthesis and methodology: A. Wee

Department of Computer Science

Research in the Department of Computer Science is both discipline and applications based. Research activity includes computing theory, theory and application of rough sets, information retrieval, graphics, computer visualization, machine learning, expert systems, human-computer interaction, databases, data communications, computer security, and distance education. The CFI-funded Laboratory for Computational Discovery (LCD) provides the necessary infrastructure for discipline based and interdisciplinary research projects. The Rough Set Technology Laboratory (RSTL) is a focal point for growth in research activity in Rough Sets, Bayesian Networks, Data Mining and Web Intelligence. The Undergraduate Digital Media Lab continues to be a joint effort by the Department of Media Production and Studies in the Faculty of Fine Arts, and the Department of Computer Science. It provides state-of-the-art facilities for interdisciplinary research in multimedia.

The expertise of the current faculty is broadly described as follows:

Computational Theory and Algorithms: L. Saxton, B.T. Yang
Computer Audio, Signal and Image Processing: D. Gerhard, X.D. Yang
Computer Graphics, Visualization, and Animation: H. Hamilton, D. Hepting, X.D. Yang
Computers in Education: D. Hepting, R.B. Maguire
Computer Security: B. Yang, J.T. Yao, C.N. Zhang
Databases: C. Butz, L. Saxton
Data Mining, Machine Learning, Reasoning, Planning and Rough Set: C. Butz, L. Fan, H. Hamilton, R. Hilderman, M. Mouhoub, S. Sadaoui, J.T. Yao, Y. Yao, W. Ziarko
Human-Computer Interaction: D. Gerhard, D. Hepting, R. Hilderman, R.B. Maguire
Information Retrieval and Web Intelligence: C. Butz, J.T. Yao, Y. Yao, X.D. Yang
Parallel and distributed Computing: R. Hilderman, C.N. Zhang
Software Technology/Engineering: L. Fan, P. Fong, D. Hepting, S. Sadaoui
VLSI: C.N. Zhang
**Department of Geology**

Research addresses volcanology, igneous and metamorphic petrology, structural geology, organic petrology, geochemistry, clastic and carbonate sedimentology and basin analysis, mineralogy, geomorphology, Quaternary geology and economic geology. The department maintains research collaborations with Saskatchewan Industry and Resources (SIR) and Geological Survey of Canada (GSC). This collaboration gives faculty access to the SIR Subsurface Laboratory and core depository. SIR is also a source of research funding and provides some graduate and undergraduate student support. Some members of the department contribute to the research activities of the Petroleum Technology Research Centre (PTRC) situated in the University of Regina’s Research Park.

The research expertise of the department is broadly grouped as follows:

- **Organic petrology/geochemistry:** S. Bend
- **Clastic sedimentology and stratigraphy:** K. Bergman
- **Structural geology and metamorphic petrology:** K. Bethune
- **Economic geology and geofluids:** G. Chi
- **Volcanology, igneous petrology and mineralogy:** I. Coulson
- **Geomorphology and Quaternary environments:** J. Dale
- **Carbonate petrology and geochemistry:** H. Qing
- **Paleontology and Quaternary paleoenvironments:** M. Velez

**Department of Mathematics and Statistics**

There is a strong core of researchers in several areas of mathematical science, particularly algebra and number theory, discrete mathematics, geometry and topology, matrix theory, functional analysis, numerical analysis, probability, and applied statistics. In addition, the department engages in consulting activities in actuarial science and statistics.

A number of mathematicians are affiliated with the department. Dr. Brian Alspach, a distinguished Canadian mathematician, is an adjunct professor, while Drs. Iqbal Husain and Fotini Labropulu are faculty members at Luther College.

The expertise of the department is broadly grouped as follows:

- **Actuarial mathematics:** L. Miller, P. Douglas
- **Algebra and number theory:** A. Herman, R. McIntosh, F. Szechtman
- **Algebraic topology:** D. Stanley, H. Rodriguez Ordonez
- **Applied analysis:** E. Doolittle, I. Husain, F. Labropulu
- **Discrete mathematics:** K. Meagher
- **Functional analysis:** M. Argerami, J. Erlijman, D. Farenick, R. Floricel
- **Geometric analysis:** B. Gilligan, A.L. Mare
- **Geometry:** J.C. Fisher
- **Mathematics education:** P. Maidorn
- **Matrix theory:** S. Fallat, C.-H. Guo, S. Kirkland
- **Statistics and probability:** D. Deng, M. Kozdron, A. Volodin, Y. Zhao

**Department of Physics**

The Department of Physics has active research programs in experimental and theoretical subatomic physics, and in observational astronomy. The research of many of the faculty members is collaborative in nature and the department organizes most of its research infrastructure under four areas: Hadronic QCD Physics, High Energy Physics, Weak Interactions and Neutrino Physics and Observational Astronomy and Cosmology.

The expertise of the department is broadly grouped as follows:

- **Experimental subatomic physics:** M. Barbi, K. Benslama, G. Huber, G. Lolos, E. Mathie, Z. Papandreou
- **Theoretical subatomic physics:** N. Mobed
- **Observational astronomy:** P. Bergbusch
- **Planetary astronomy:** M. Beech
6.2 EXTERNAL FUNDING AND GRANTING AGENCIES

Research in the Faculty of Science is supported by a number of external agencies. The Natural Sciences and Engineering Research Council of Canada (NSERC) provides the majority of external funding to the faculty. This funding is awarded on the basis of national competitions that evaluate research productivity and international impact.

The Canada Foundation for Innovation (CFI), in partnership with the Government of Saskatchewan, provides infrastructure support for high-quality research proposals. At the provincial level, researchers are eligible to compete for funds from the Health Services Utilization and Research Commission (HSURC).

Table 6.1 summarizes by department the sources of funds received by Faculty of Science researchers in the last fiscal year. The table does not reflect the total amount of funding awarded because in many instances the award is paid out over a number of years.

Table 6.1. Sources of funds received by Faculty of Science researchers in the fiscal year 2007-2008 (i.e., April 1, 2007 – March 31, 2008).

<table>
<thead>
<tr>
<th>Department</th>
<th>NSERC</th>
<th>SSHRC</th>
<th>CIHR</th>
<th>CRC</th>
<th>Federal Gov’t</th>
<th>Prov Gov’t</th>
<th>Industry</th>
<th>Assoc./Found./trusts</th>
<th>Inter-fund Transfers</th>
<th>Misc.</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean's Office</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$7,600</td>
<td>$29,200</td>
<td>$0</td>
<td>$36,800</td>
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<tr>
<td>Biology</td>
<td>$360,729</td>
<td>$0</td>
<td>$0</td>
<td>$275,000</td>
<td>$234,995</td>
<td>$264,920</td>
<td>$84,181</td>
<td>$261,928</td>
<td>$255,883</td>
<td>$1,737,637</td>
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</tr>
<tr>
<td>Chemistry and Biochemistry</td>
<td>$256,116</td>
<td>$0</td>
<td>$107,682</td>
<td>$0</td>
<td>$20,000</td>
<td>$23,333</td>
<td>$0</td>
<td>$120,317</td>
<td>$527,448</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td>$402,190</td>
<td>$0</td>
<td>$0</td>
<td>$196,174</td>
<td>$0</td>
<td>$20,000</td>
<td>$0</td>
<td>$58,853</td>
<td>$677,717</td>
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<tr>
<td>Geology</td>
<td>$82,050</td>
<td>$0</td>
<td>$0</td>
<td>$96,501</td>
<td>$30,000</td>
<td>$25,000</td>
<td>$0</td>
<td>$23,466</td>
<td>$257,017</td>
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<td></td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>$179,526</td>
<td>$0</td>
<td>$0</td>
<td>$116,000</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$140,908</td>
<td>$36,100</td>
<td>$472,535</td>
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<tr>
<td>Physics</td>
<td>$363,553</td>
<td>$0</td>
<td>$100,000</td>
<td>$0</td>
<td>$254,302</td>
<td>$0</td>
<td>$102,294</td>
<td>$0</td>
<td>$520,149</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>$1,644,165</td>
<td>$0</td>
<td>$107,682</td>
<td>$375,000</td>
<td>$547,671</td>
<td>$434,253</td>
<td>$299,302</td>
<td>$91,781</td>
<td>$292,483</td>
<td>$4,529,306</td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations: NSERC: Natural Sciences and Engineering Research Council; SSHRC: Social Sciences and Humanities Research Council; CIHR: Canadian Institute for Health Research; Ind.: private industry.

Support from NSERC for ongoing research is mostly in the form of ‘Discovery Grants’ awarded to individual professors. Additional NSERC funding comes from Research Tools and Instrument (RTI) grants, group discovery grants, project grants, industrial collaborative grants, and strategic-research grants.

NSERC funding decisions for all of Canada are made by national committees that meet annually. Several Science professors have been invited to participate in this process. Dr Tanya Dahms serves on the Cell Biology Grant Selection Committee. Dr Howard Hamilton serves on the Advanced Communications and Management of Information Strategic Panel. Dr Garth Huber serves on the Subatomic Physics Grant Selection Committee. Dr Scott Wilson serves on the Ecology and Evolution Subcommittee of the Major Resources Support Committee.

In addition, Dr Andrew Freywald serves on an Operating Grant Committee of the Canadian Institutes of Health Research, the Molecular Cell Biology of Cancer.

Dr. Scott Wilson represents NSERC at the University of Regina. The University is also represented at the national level by Dr. Katherine Bergman who serves on the board of the Pacific Institute of Mathematical Sciences and the Canadian Light Source.

6.3 CANADA RESEARCH CHAIRS

In 2008 a new Tier 2 Chair was added to the faculty, in the area of Wildlife and Environmental Mutagenesis (Chris Somers). The Faculty also hosts a Tier 1 Chair in the area of Energy and Environment (Peter Leavitt), and a Tier 2 Chair in Microbes, The Environment and Food Safety (Chris Yost).
6.4 INTERNATIONAL RESEARCH

International impact is a key criterion for receiving NSERC funding, (Table 6.1) and our success in obtaining NSERC support attests to the ongoing level of activity in this area. This is achieved primarily by publishing scientific papers in international journals that are circulated globally.

It is also common for members of the Faculty of Science to be involved in fieldwork abroad or in international collaborations. Faculty members also serve on the grant selection committees of other countries, review for these agencies, and serve as editors for international journals.

University of Regina scientists routinely travel to present the results of their research at international symposia, and to attend conferences and workshops to keep up to date with cutting-edge developments in their discipline. The Faculty helped fund 28 professors to make presentations at international conferences last year, with the balance of funds coming mostly from NSERC grants. Participation by students and postdoctoral fellows at international meetings is also common.

6.5 RESEARCH OPPORTUNITIES FOR UNDERGRADUATE STUDENTS

NSERC Undergraduate Summer Research Awards

NSERC annually allocates a number of awards for undergraduate students to obtain significant research experience under the direction of NSERC researchers (refer to Table 5.4).

Undergraduate Research Assistants

Many undergraduate students were hired by Faculty of Science researchers to assist in laboratories, fieldwork and other research-related activities over the summer months.

6.6 ARCHER LIBRARY

The Library has begun providing up-to-date online access to the prestigious journals Science and Nature. Besides the journals themselves, online coverage includes access to enhanced content and rapid before-print publication. These journals are listed in the Library catalogue with links to their online sites; they may also be accessed through the Library’s online list of e-journals (http://www.uregina.ca/library/eresources/ejournals.shtml).

The Library is extending the University of Regina’s online access to publications from Springer, a major provider of scientific content, through 2009. These publications, which include books and journals, are available through the database SpringerLink. Included are many popular e-book series, such as Lecture Notes in Computer Science and Lecture Notes in Physics. Please note that some, but not all, of these publications are listed in the Library catalogue (we are working with Springer to try to have all of them listed); therefore, if you do not find a desired Springer publication in the catalogue, please check in SpringerLink, or contact the science librarian, Charles Phelps, for assistance.

Springer publications provide coverage these subject areas (coverage is especially extensive in the sciences):

- Behavioral Science
- Biomedical and Life Sciences
- Business and Economics
- Chemistry and Materials Science
- Computer Science
- Earth and Environmental Science
- Engineering
- Geography
- Humanities, Social Sciences and Law
- Mathematics and Statistics
- Medicine
- Physics and Astronomy
7.1 REPREsentATION ON UNIVERSITY COMMITTEES

Members of the Faculty of Science serve as representatives to other faculties and are members of University committees including:

- Campus Administrative and Technical Staff
- Council Committee on Admissions and Studies
- Council Scholarship Committee
- Deans’ Council
- Executive of Council
- Finance-HR Advisory Committee
- Occupational Health Committee
- Planning and Priorities Committee
- President’s Committee on Animal Care
- President’s Research Committee
- Presidential Search Committee
- Research Ethics Board
- President’s Advisory Committee in Information Technology
- President’s Advisory Committee on Radiation Safety
- Senate
- Senior Leadership Team
- Strategic Enrollment Management Team (Student Retention)
- Student Issues Committee
- University Committee for Promotion to Professor

7.2 PROFESSIONAL ORGANIZATIONS

Faculty members of each academic department belong to various professional organizations. These organizations are named for each department below:

**Department of Biology**
- Animal Behaviour Society
- American Ornithologists Union
- American Society of Limnology and Oceanography
- American Society of Mammalogists
- American Society of Zoologists
- British Bryological Society
- British Ecological Society
- Canadian Entomological Society
- Canadian Society of Environmental Biologists
- Canadian Society of Plant Physiologists
- Canadian Society of Zoologists
- Cooper Ornithological Society
- Ecological Society of America
- Geological Society of America
- International Association of Great Lakes Research
- North American Benthological Society
- Phycological Society of America
- Sigma Xi
- Society of Wetland Scientists
- Society of Canadian Limnologists
- The Genetical Society
- The Wildlife Society
- Wilson Ornithological Society

**Department of Chemistry and Biochemistry**
- Advanced Laser Light Source
- Air and Waste Management Association
- American Association of Cancer Research
- American Chemical Society
- American Chemical Society (Biochemistry Division)
- American Geophysical Union
- American Society for Agronomy
- American Society for Mass Spectrometry
- American Society for Photobiology
- Biophysical Society
- Canadian Institute of Chemistry
- Canadian Light Source
- Canadian Society of Biochemistry, Molecular and Cellular Biology
- Chemical Institute of Canada
- Federation of American Society for Biochemistry
- Geological Society of America
- Inter-American Photochemical Society
- International Society for Heterocyclic Chemistry
- Saskatchewan Structural Centre (University of Saskatchewan)
- Society for Environmental Toxicology and Chemistry
Part 7: University Service

**Department of Computer Science**
- Acoustical Association of America
- American Association of Artificial Intelligence
- Association for Computing Machinery (ACM)
- ACM Special Interesting Group in Computer Graphics
- ACM Special Interesting Group in Information Retrieval
- ACM Special Interesting Group in Knowledge Discovery and Data Mining
- ACM Special Interesting Group in Computer-Human Interaction
- American Institute for Physics
- Artificial Intelligence Association for Advancement of Artificial Intelligence
- Association for Constraint Programming
- Canadian Acoustical Association
- Canadian Association for Brain, Behaviour and Cognitive Science
- Canadian Information Processing Society
- Canadian Society for Computational Studies of Intelligence
- Entity Relationships Society
- Florida Artificial Intelligence Research Society
- Information Retrieval
- Institute of Electrical and Electronic Engineering (IEEE)
- IEEE Computer Society
- IEEE Systems, Man, and Cybernetics Society
- International Association for Study of Popular Music
- International Computer Music Association
- International Roughset Society
- Mathematical Programming Society
- Mathematical Association of America
- Mathematics of Information Technology and Complex Systems
- Models of Data
- North American Fuzzy Set Society
- Society for Applied Research in Memory and Cognition
- Society for Industrial and Applied Mathematics
- Special Interest Group

**Department of Mathematics and Statistics**
- American Mathematical Society
- American Statistical Association
- Association for Women in Mathematics
- Bernoulli Society for Probability and Statistics
- Canadian Applied and Industrial Mathematics Society
- Canadian Mathematical Society
- Canadian Mathematics Education Study Group
- Combinatorial Mathematics Society of Australia
- German Mathematical Society
- Institute for Combinatorics and Its Applications
- Institute for Mathematical Statistics
- International Chinese Statistical Association
- International Indian Statistical Association
- International Linear Algebra Society
- International Statistical Institute
- Mathematical Association of America
- National Council of Teachers of Mathematics
- Royal Statistical Society
- Statistical Society of Canada
- Society for Industrial and Applied Mathematics
- The American Academy of Actuaries
- The Canadian Institute of Actuaries
- The Society of Actuaries

**Department of Geology**
- Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS)
- American Association of Petroleum Geologists (AAPG)
- Canadian Geomorphological Research Group
- Canadian Sedimentology Research Group
- Canadian Society of Organic Petrologists
- Canadian Society of Petroleum Geologists (CSPG)
- European Association of Organic Geochemists
- International Association of Sedimentologists (IAS)
- International Committee of Coal Petrologists
- Geological Association of Canada (GAC)
- Geological Society of America
- Geological Society of London
- Geological Society of South Africa
- Mineralogical Association of Canada (MAC)
- Mineralogical Society of Great Britain
- National Association of Geology Teachers
- Royal Canadian Geographical Society
- Saskatchewan Geological Society (SGS)
- Society for Sedimentary Geology (SEPM)
- Society of Organic Petrologists

**Department of Physics**
- American Physical Society (APS)
- Canadian Association of Physicists (CAP)
- High Energy Accelerator Research Group (KEK)
- Institute for Nuclear Physics
- Institute for Particle Physics (IPP)
- TRIUMF
7.3 LONG SERVICE HONOUREES FOR 2008

Members of the Faculty of Science honoured at the annual University of Regina Long Service Awards were:

- Donna Draper Chemistry 35 Years
- Lawrence Saxton Computer Science 35 Years
- George Lolos Physics 25 Years
- Audrey Perra Science 25 Years
- Heather Dietz Biology 15 Years
- Peter Leavitt Biology 15 Years
- Joanne Downing Biology 10 Years
- Juliana Erlijman Math & Stats 10 Years
- Catherine Song Computer Science 10 Years
- Yiyu Yao Computer Science 10 Years

8.1 SCHOOLS

Our faculty members are regularly invited to give lectures and presentations at elementary and secondary schools, as well as community organizations (e.g., Beavers, Cubs). These visits are well received by the school children and their teachers, and provide the faculty a means of interacting with potential students. The Faculty of Science sponsors several events organized by various local and regional school systems such as science fairs and career fairs. The Faculty also provides displays and volunteers (e.g., judges, mentors) to these functions.

8.2 COMMUNITY

- The mandate of the Saskatchewan Science Network (SSN) is to increase scientific literacy and promote science culture within Saskatchewan schools and the general community through partnerships with the education, science, and business communities of Saskatchewan. One of the goals of the SSN is to improve access for teachers to the pool of scientific and technological expertise and educational material available in Saskatchewan. The SSN has recently collaborated with the University of Regina, Faculty of Science and the NSERC WISE Chair at the University of Saskatchewan to create a website (http://www.sasksciencenetwork.ca/ssn/) that will facilitate access for teachers to scientific material suitable for enhanced classroom learning. Ultimately teachers will be able to incorporate science into their classrooms more readily and thereby improve the general level of scientific literacy in all students. The SSN looks forward to future collaborations with the Faculty of Science that will increase local interest in and awareness of science and technology occurring in Saskatchewan.
- The Department of Mathematics and Statistics hosted the annual Mathematics Enrichment Camp for students from grades 7 to 12. Students from across the province attended and were engaged in a wide variety of activities to develop mathematical skills and to expose them to different opportunities available in mathematics. The two-day camp includes activities, games and presentations on a wide variety of topics designed to spark and enrich student interest in mathematical science. Topics include logic games, fractals and robotics. The Department also sponsors the Problem of the Month Contest. Each month a challenging math problem appears on the Department web page and in the Carillon (the University student newspaper). Local responses are received and many responses are from other provinces as well as Spain and Russia. The Department maintains Math Central a web-based interactive resource for teachers and students.
- Many of our faculty are members of the Saskatchewan Science Centre and give public presentations or assist with the development of displays. The Faculty of Science is a gold sponsor of the Science Centre and was a corporate sponsor for the Fantasy Food 2008 Charity Gala Event.
APPENDIX 1: PROFESSOR EMERITI
AND LAB INSTRUCTOR EMERITI
FOR 2008

Professor Emeriti:

Department of Biology
Dr. Keith Denford
Dr. George Mitchell
Dr. William Quick
Dr. M.V. Sethu Raju
Dr. Diane Secoy
Dr. A. Walther
Dr. Melvin Weisbart
Dr. Russell Zacharuk

Department of Chemistry and Biochemistry
Dr. David Chandler
Dr. Keith Johnson
Dr. Donald Lee

Department of Computer Science
Dr. Michael Wong

Department of Geology
Dr. Pier Binda
Dr. Donald Kent
Dr. Laurence Vigrass
Dr. Brian Watters

Department of Mathematics and Statistics
Mr. Norman Biernes
Dr. James Conlan
Dr. Audrey Duthie
Dr. Chris Fisher
Dr. Haragauri Gupta
Dr. Denis Hanson
Dr. Saroop Kaul
Dr. Eusebio Koh
Mrs. Joanne McDonald
Dr. R. Ian McDonald
Dr. Dieter Ruoff
Dr. Jim Tomkins
Dr. C.L. Wang
Dr. Harley Weston

Department of Physics
Dr. Leonard Greenberg
Dr. Joseph Kos
Dr. S. Ishrat Naqvi
Dr. Giorgio Papini
Dr. Bev Robertson

Lab Instructor Emeriti:

Department of Computer Science
Ms. Pauline Van Havere

APPENDIX 2: ADJUNCT AND
ASSOCIATE MEMBERS FOR 2008

Adjunct Members

Department of Biology
Dr. Nick Antonishyn
Dr. William Chapco
Dr. Stephen Davis
Dr. Rod Kelln
Dr. Gregory Horsman
Dr. Paul Levet
Dr. Pedro Peres-Neto
Dr. Ray Poulin
Dr. Glen Sutter
Dr. Björn Wissel

Department of Chemistry and Biochemistry
Dr. Athar Ansari
Mr. John Hudson
Dr. Keith Johnson
Dr. Ron Treble
Dr. Dunling Wang

Department of Computer Science
Dr. David Barnard
Dr. Darryl Dormuth
Dr. Charity Marsh
Dr. Dominik Slezak
Dr. Michael Wong

Department of Geology
Dr. Kenneth Ashton
Dr. Pier Binda
Dr. Donald Kent
Dr. R. Macdonald
Dr. Per Kent Pedersen
Dr. Benjamin Rostron
Dr. Osman Salad Hersi
Dr. Laurence Vigrass

Department of Mathematics and Statistics
Dr. Brian Alspach
Dr. Jonathon Funk
Dr. Denis Hanson
Dr. Kathy Heinrich
Dr. Arzu Sardarli
Dr. Jim Tomkins

Department of Physics
Dr. Bhaskar Dutta
Dr. Roman Tacik
Associate Members

Department of Biology
Dr. Dennis Alfano
Dr. Stephen Davis
Dr. Mary Vetter (Luther College)

Department of Chemistry and Biochemistry
Dr. Neil Ashton

Department of Computer Science
Dr. Gordon Huang
Dr. Charity Marsh
Dr. Sheila Petty

Department of Mathematics and Statistics
Dr. Iqbal Husain (Luther College)
Dr. Fotini Labropulu (Luther College)

Department of Physics
Dr. Martin Beech (Campion College)

APPENDIX 3: SESSIONAL LECTURERS FOR 2008

Department of Biology
Erin Guillam
Susan Lund
Björn Wissel

Department of Chemistry and Biochemistry
Stephen Cheng
Donna Draper
Yan Zhao

Department of Computer Science
Roger Barbour
Xuguang Chen
Richard Dosselmann
Patrick Henderson
Joseph Herbert
Maxim Ivanov
Rashad Jihad
Brett Park

Department of Geology
Pier Binda
Robert Macdonald

Department of Mathematics and Statistics
Mahmud Akelbek
Supranee Lisawadi
Shaun McCann
Hugo Rodriguez Ordonez
Suchita Sharma

Department of Physics
Dinesh Singh

APPENDIX 4: GRADUATE TEACHING FELLOWSHIPS FOR 2008

Department of Computer Science
Shan Hua
Mondelle Simeon
Chris Worman

APPENDIX 5: SUPPLEMENTAL INSTRUCTION LEADERS FOR 2008

Department of Biology
Patrick Barks
Sarah Ludlow
Chelsea Poncsak

Department of Chemistry and Biochemistry
Timothy Bolton

Department of Computer Science
Natasha Jacques

Department of Mathematics and Statistics
Bridget Fortowsky
Bairong (Alex) Lei
PHOTO CREDITS

Many thanks to AV Services for numerous photos used throughout this Annual Report, including the cover photo. Also, thank you to all those from the Faculty of Science who contributed photos.