

TO: Planning and Budget

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AGENDA ITEM: 8

ITEM IDENTIFICATION: University of Toronto Mississauga Academic Plan, 2012-17

JURISDICTIONAL INFORMATION:

Divisional academic plans are considered by the Committee and the Academic Board for information and feedback. Prior to approval by the Provost and presentation to the Committee, it is expected that the relevant divisional Council would endorse the academic plan in principle. (*P&B, Terms of Reference, Section 4.1*)

PREVIOUS ACTION TAKEN:

HIGHLIGHTS:

The Divisional Academic Plan of the University of Toronto Mississauga is the product of a broadly inclusive consultative process. As described in the Plan, the Vice-Principal Academic and Dean formed an Academic Planning Committee in 2011 to guide the planning process. Consultation with the community began during the fall of 2011 with the discussion of a draft set of values. The Divisional Plan builds on a unit self-study and planning process, emphasizing themes and issues that emerged from the planning process and from final unit plans. Public consultation around the draft plan occurred during the fall, 2012. The plan was approved by the Provost in late September 2012. The final UTM Academic Plan was endorsed by the Erindale College Council (ECC) at its meeting on November 12, 2012.

The five year Academic Plan for the University of Toronto Mississauga presents a wide range of commitments and goals connected to the Division's twelve core values, focusing in particular on expansion while improving the Division's faculty: student ratio; expanding and renovating campus facilities; building on already strong connections with the local community; increasing support for research; and encouraging pedagogical innovation and experiential learning including increased student engagement in research.

FINANCIAL AND/OR PLANNING IMPLICATIONS:

The resource implications of the Divisional Academic Plan are as detailed in the plan.

ACTION SOUGHT:

This item is for information and feedback only.

UTM Divisional Academic Plan

Executive Summary

University of Toronto Mississauga (UTM) is a vital and beautiful campus of the University of Toronto, located in the Western GTA. We have an ongoing commitment to academic freedom, equity and diversity, and serve the needs of our local community while attracting students from across Canada and internationally. Throughout the plan period (201 – 2017) our international undergraduate student intake will exceed 17% of our entering class each year, and our domestic undergraduate enrolments will increase by approximately 5% per year. We will continue to supervise research stream masters and doctoral students in our tricampus graduate programs and will selectively develop new UTM-based streams of PhD programs and new professional programs to add to our existing suite of strong professional masters programs. While growing, we will not merely maintain but also enhance the quality of our teaching and research, in keeping with our mission.

UTM offers a rich mix of traditional disciplinary and distinctively interdisciplinary undergraduate courses and programs in the Arts and Sciences and Management. In 2011 we opened the Mississauga Academy of Medicine, a partnership between UTM, the University's Faculty of Medicine, and the Credit Valley Hospital and Trillium Health Centre. Throughout the plan period our offerings will become more comprehensive, as we explore a partnership with the Faculty of Applied Sciences and Engineering, and develop a new approach to interdisciplinary sector-specific business education at both the undergraduate and graduate levels in our proposed new Institute for Management and Innovation (IMI).

One of our main priorities in the plan period is to invest increased revenues due to enrolment increases and the shift to more international students in hiring those who teach and support our students. We will improve our faculty: student ratio and seek donor and central support to make significant strides in this direction. We will invest in expanded programming to support students' transitions to university studies and their development of skills that enable them to succeed while at UTM and achieve their life ambitions after graduation. We will expand and renovate our buildings and facilities to provide more and better space for learning, research, and the services to support our growing numbers of students and faculty and we will make the best possible use of our existing space. Our commitment to the quality of our research and teaching missions will be demonstrated in a variety of ways, including our investments in research infrastructure, initial funding for faculty research, partnerships between our library, faculty and staff, and our more coordinated approach to support for pedagogical innovation and instructional technology. We will build upon our suite of research -intensive and experiential learning opportunities, and will increase the interactions between our alumni and our current students in part through enabling better connections between our departments and programs and their

alumni. Finally, we will better publicize the extent and range of ways we have a positive impact on our community, and will invest in more support for our community outreach activities.

Process

Following a call for nominations, the Academic Planning Committee (APC) was formed to help shape and guide the planning process. The APC included four faculty members, a graduate student, an undergraduate student, a librarian, a member of our alumni, and a staff member in addition to the VP Academic and Dean. The APC was guided by the vision articulated in Towards 2030 and the recommendations of the Provostial Advisory Group on Academic Planning with respect to principles for and processes of academic planning. As a first step, the APC developed a draft set of values to guide the planning process. This draft was shared with the UTM community at two Town Halls (held in October 2011) and on a website in order to receive community input from all stakeholders. One of the Town Halls was dedicated to receiving student input. The values developed by the committee in response to its consultation are listed below.

Individual academic units completed self-studies by the end of November 2011 and a first draft of their plans, incorporating key findings of the self-studies, early in February 2012. Each unit was asked to consult with staff (departmental staff and those in central campus services such as the Career Centre, Experiential Learning Office, Robert Gillespie Academic Skills Centre, Office of the Registrar, Office of Advancement), undergraduate and graduate students, faculty in the department, cognate units and relevant graduate programs, librarians and, when possible, alumni.

The draft plans were asked to address research, teaching, the academic experience of students (undergraduate and graduate), community outreach, means and range of consultation, faculty and staff complement, programs and curricula, interactions with alumni, and relationships with other units. Simultaneously, the Hazel McCallion Academic Learning Centre engaged in a strategic planning exercise, read draft unit plans, and provided feedback regarding themes and priorities observed in them.

The APC gave detailed feedback about draft plans, conveyed in meetings with each department chair, emphasizing areas where the plans needed to provide more information or the focus and strategic directions of the department could be sharpened. The final plans were submitted by the end of March 2012.

The divisional plan is not a summary of unit plans, but instead reflects on themes and issues that emerged as a result of the planning process and in submission of the final unit plans. It identifies future directions, guided by unit plans and the values outlined below, and gives means for assessing progress over the plan period (2012-2017). A draft plan was developed by the end of June 2012, in order to make the summer and early fall of 2012 available for widespread public consultation. The aim is to have a version of the plan ready to go through governance by the end of November 2012.

Statement of UTM Values to Guide Academic Planning

1. UTM is dedicated to fostering an academic community in which the work, learning, scholarship and teaching of every member may flourish, with vigilant protection for individual human rights, and a resolute commitment to the principles of equal opportunity, academic freedom, equity and justice.

2. UTM maintains a commitment to a rich and positive student academic experience, both *inside* and *outside* the classroom, and to supporting students in their achievement of their current academic goals and the acquisition of lifelong learning skills. The skills we convey include ones that enable our students to be thoughtful global citizens capable of critically reflecting on the world in its complexity.

3. UTM is committed to being a campus that promotes and supports internationally significant research.

4. UTM is committed to being a campus with excellent and rigorous undergraduate, graduate and professional programs and to providing a relevant and rich mix of distinctive and interdisciplinary courses and programs.

5. UTM is committed to maintaining a research-intensive culture that creates opportunities for our students to engage in research, experiential learning, and creative activity.

6. UTM values excellence in teaching, aiming always to recruit faculty committed to teaching of the highest quality, and offering supports to all instructors striving for pedagogical and instructional excellence.

7. UTM's courses, programs and scholarship will be supported by strong and engaging library collections, resources and services, innovative information technologies, and teaching and learning spaces that will enrich and enliven the academic experience.

8. UTM values the many contributions its administrative staff, academic staff and librarians make to our academic mission and to the academic experience of our students, and is committed to maintaining a supportive environment for our staff, one that foster synergies and community.

9. UTM will strive to ensure that its graduates are educated in the broadest sense of the term, and have developed the ability to think clearly, to inquire deeply, to judg objectively, and to contribute constructively to society.

10. UTM values the inclusion and involvement of its graduates as life-long members of the University community who make significant contributions to its on-going life and reputation.

11. UTM wishes to increase its ability to attract students from outside the GTA, from all

of Canada and abroad, in the belief that a diverse student body enriches the educational experience of its campus.

12. UTM is committed to contributing to the well-being of the many communities of which it is a part, including our local, national and international communities.

UTM Divisional Plan, Presented in Response to its Statement of Values

1. UTM is dedicated to fostering an academic community in which the work, learning, scholarship and teaching of every member may flourish, with vigilant protection for individual human rights, and a resolute commitment to the principles of equal opportunity, equity and justice.

Equity and Justice: Academic, administrative, and student leaders at UTM, working with tricampus equity officers, have demonstrated a deep commitment to ensuring that the UTM community is inclusive, and that campus activities reflect the principles of equal opportunity, equity and justice. Our largest student union (UTMSU) has an executive position dedicated to equity, and equity is a major concern in the office of our Dean of Student Affairs. Departments in this portfolio increase First Nations cultural awareness, offer sexual and gender diversity education, education and support with respect to relationship violence, opportunities for students with disabilities, and initiatives for increasing the participation of women in sport. Student clubs celebrate a diversity of religions and communities of origin. Our Principal appoints an Advisory Committee on Diversity, Equity and Inclusion as well as the chairs of our Positive Space campaign, which works towards a more inclusive environment around sexual and gender diversity issues. Our academic units are guided by a commitment to freedom of academic inquiry, for faculty and students alike. The UTM AccessAbility Resource Centre supports our students with temporary or ongoing disabilities that require accommodation, and our CAO ensures that accessibility concerns are addressed in all new and existing buildings and facilities. As we grow as a campus, we will need to work together to ensure that all students, staff, faculty and visitors to UTM feel welcome, and are able to pursue their teaching, learning and service objectives while making productive contributions to campus life. This will require ongoin involvement of all stakeholders with respect to initiatives such as Positive Space and pro-active accommodation of disabilities.

<u>Next Steps</u>: In recent public fora, UTM students have called for the appointment of a full-time campus based Equity Officer. We plan to hire in this area in the fall of 2012, to support activities on our campus in keeping with equity and justice and to respond to particular issues and concerns as they arise. We appreciate the central allocation of University Funds in support of this position.

2. UTM maintains a commitment to a rich and positive student academic experience, both inside and outside the classroom, and to supporting students in their achievement of their current academic goals and the acquisition of lifelong learning skills. The skills we convey include ones that enable our students to be thoughtful global citizens capable of critically reflecting on the world in its complexity.

<u>Hiring</u>: The most significant investment we can make to improve students' academic experience is to hire more of those who teach, support, and advise them. Our investments i new staff positions are discussed in section 8. We will make selective investments throughout the plan period to support the provision of library services discussed in section 7. We have experienced considerable growth in student enrolments in the past ten years and our faculty: student ratio is very high at 34:1. By comparison, the 2009 faculty: student ratio for University of Toronto was 28.4:1.¹ We are committed to an aggressive program of faculty hiring to improve our faculty: student ratio, with a mix of tenure stream and teaching stream hires, as is appropriate in each discipline. To make significant inroads in improving this ratio we will engage in advancement efforts and will advocate for central (University Fund) allocations dedicated to faculty positions.

<u>Next Steps</u>: We will devote a substantial portion of revenues flowing from enrolment expansion to faculty recruitment, and plan advancement activity and advocacy in support of new faculty positions. We have identified efficiencies in our course delivery and will redirect savings towards increasing our faculty complement. In faculty complement allocations, we will focus on faculty: student ratios, the way faculty are deployed in the classroom (we want to ensure that our students gain as much exposure as possible to our best teachers and researchers), the track records of our units in hiring well in particular areas, the need to be responsive to student interests, and the evolution of programs and disciplines in relation to the changing research and educational landscape. The faculty: student ratio (in general at UTM and within our various departments and programs) is an important metric to be used in determining the success of our divisional plan. Each year we will monitor the overall faculty: student ratio for the campus and that of our academic units (measured by course enrolments compared to faculty in continuing positions). These will be compared to the ratios in 2011-12.

<u>Review of Curricula</u>: In order to provide the best possible academic experience within the classroom, it is not enough to hire well. We must focus in an ongoing way on the design of our curricula and courses, a process facilitated by the University of Toronto Quality Assurance Process (UTQAP), which involves periodic external review of our programs. The evaluations provided by external reviewers will be another important way to measure our success in this dimension.

<u>Classrooms and Study Space</u>: In addition to ongoing review of our curricula, in order to improve the classroom experience we must attend to the classrooms themselves – including supports for instructional technology within the lecture hall or seminar room (discussed below in section 6) and use of classroom space. The most recent National Survey of Student Engagement (NSSE) indicated that 27% of senior UTM students

¹ University of Toronto Performance Indicators 2011:

http://www.utoronto.ca/_shared/assets/28a_SFR_G13_visual4451.pdf. The UTM faculty count does not discount for the percentage of faculty time devoted to supervising graduate students in tricampus programs.

rated improving the quality of classrooms and lecture halls as a top priority. Outside the classroom, both first year and senior students rated improving the quality and availability of study spaces as their priority. During the last decade, the campus has undergone a tremendous transformation of its physical space with the creation of buildings such as the Instructional Centre.

<u>Next Steps</u>: In the near future, we will further expand the repertoire of learning spaces with the construction of new academic space in the North Building and expansion of the Kaneff Centre. These new structures will address issues raised by students in the NSSE survey. In addition, all of this expansion has been and will be done in an aesthetically and environmentally sensitive way, remaining true to the 'green' qualities of our campus while creating dynamic facilities for learning and research.

<u>Pressure on Space</u>: We are fortunate to have secured government funding and University of Toronto approval to expand our Kaneff and North Buildings. Nonetheless, planned enrolment expansion, and the concomitant need to add to our faculty and staff complement while finding classrooms for our growing student body, requires us to rigorously oversee the use of space. UTM faces considerable pressure on space (including office and research space that has an indirect impact on the student academic experience when it delays hiring). In order to address pressures on office space, we recently developed and distributed a series of principles governing the allocation of office space.

<u>Next Steps</u>: In response to pressure on classroom space, we are working to be as efficient as possible in using our existing space, in order to offer students maximal flexibility in their schedules and a wide range of classes that fit their needs and interests. To this end, a Scheduling Committee, with representatives from the Office of the Dean, Office of the Registrar, and faculty from varying disciplines, has been struck to develop principles that will govern the scheduling of classes on this campus. In addition, we will encourage our academic units to offer more courses in the evening and, when possible, in the summer session, in order to make better use of available space and meet the needs of our part-time students.

<u>Academic Experiences Outside Classrooms</u>: Academic experiences available outside the classroom are enhanced by the activities of our academic societies, departmental funding of student academic activities, community-building collaborations between our Office of the Registrar, staff in Marketing and Communications and academic units; development of co-curricular activities at the level of departments and programs, research experiences (discussed below in section 5), and experiential learning activities that occur outside the traditional classroom. In addition, our programs offer their students opportunities to learn and study abroad, through promotion of central University of Toronto exchanges with partner institutions, and in some cases through more local UTM initiatives. The UTM International Centre supports students in these programs.

<u>Academic Societies</u>: Funded by student levies and a matching contribution from the Office of the Dean, our academic societies are flourishing due in part to the work that UTMSU and the student executives have put into mounting viable and exciting events and activities. Many of our student societies are newly established and to maintain the momentum that has been building they require support and guidance within departments. Closer coordination with departmental faculty and staff will allow our academic societies, in turn, to support departmental activities. Beginning in 2011-12 the Office of the Dean has offered additional funding for student academic society initiatives that achieve priorities such as increasing faculty-student interaction, or increasing academic interactions between more junior and more senior students. Funded initiatives include Meet the Prof nights, lectures, workshops, symposia with presentations of undergraduate student research, mock interviews, and orientation, networking and mentorship events, often in partnership with the Career Centre.

<u>Next Steps</u>: Recently initiated decanal prize funding for academic society events that achieve the goals identified above will be continued. Events that foster understanding and appreciation of diversity, and enable participation of part-time students will be added to the priorities for receiving funding.

<u>Academic Unit Support for Undergraduate Academic Experiences</u>: Our departments and Institute of Communication, Culture and Information Technology (ICCIT) offer funds to support initiatives that enrich undergraduate students' academic experience. The support student awards nights, students' attendance at academic conferences and case competitions, events designed to enhance students' technical skills, career information sessions with presentations by alumni, and mock job interviews. As with Academic society initiatives, the Career Centre actively supports such programming initiated by departments. Some departments also hire undergraduate research assistants to work with faculty on their research projects, or bring in guest lecturers.

<u>Next Steps</u>: Pilot decanal funding for departmental initiatives to improve the student academic experience will be continued.

<u>Collaborations in Support of Academic Experiences</u>: Marketing and Communications, the Office of the Registrar, and academic units (both undergraduate and professional graduate programs) have engaged in collaborative projects that help build a sense of community among students in a given year of study, or within a given unit. The use of social media (such as Facebook pages for students in a professional program or in an incoming class) has helped create new means of discussion, and opportunities to gather academically relevant information while connecting to other students. These kinds of collaborations also enhance our students' knowledge of the various kinds of academic supports and co-curricular activities available to them.

<u>Co-Curricular Academic Experiences</u>: Several of our academic units offer co-curricular programs that emphasize professional development, often with transcript notation of student participation. Biology, Chemical and Physical Sciences, Geography, Graduate and Professional Skills (GPS) and Management currently run particularly robust

versions of these programs. In addition, our Institute of Communication, Culture and Information Technology offers its students opportunities for co-curricular engagement through its Media Generator, a student led but faculty supported initiative that fosters student production and distribution of experiments with digital media. Additional cocurricular opportunities are available to our students (particularly but not exclusively in Visual Studies) to engage with the activities of our Blackwood Art Gallery, which also promotes and showcases student creative work.

Experiential Learning: Many of our academic units have strength in the area of experiential learning. In the NSSE, the number of students reporting participations in internships and field experiences has risen steadily: from 25% in 2004 to 33% in 2011. Experiential learning, in which students learn by doing, is integrated into a large number of the courses in our Department of Historical Studies, such as courses in Religion where students conduct field research in settings of religious worship; History courses where students create items from scratch in order to appreciate what it is like to live in a producer society; and courses in Women's and Gender Studies in which students form mock parliaments focusing on contemporary gender issues. Historical Studies has also launched an undergraduate journal, an excellent example of co-curricular experiential learning.

Each year our Department of Language Studies offers students of Italian the opportunity to produce and perform in an Italian play. Through its study in Florence Program, students can complete University of Toronto credits at the University of Florence and engage in a wide range of cultural activities. Language Studies hosts a *Conversation Hour* to help students improve their communication skills in French and engage in debate, and offers weekly "Language Talk Hours" where French and Italian program students practice their communicative skills over coffee or lunch with UTM students and faculty.

Our Concurrent Teacher Education Program incorporates service learning as part of its teacher training process. Our Theatre and Drama and Art and Art History programs involve extensive experiential learning in the arts (dramatic performance, stagecraft and visual arts). Political Science integrates experiential learning into courses with group projects to develop policy briefs, and simulations of federal, provincial, or United Nations meetings. Many of our departments now offer field courses and internships (Anthropology, Biology, Chemical and Physical Sciences, Geography, Historical Studies and Psychology). All of our academic units offer research opportunity courses (discussed in section 3), and our natural science² departments offer many courses with a significant laboratory component.

Geography offers a robust slate of experiential learning opportunities: in 2011–12 the department offered 11 field and/or experiential learning courses, and offered six all–

² Throughout the document, 'natural science' is taken to be inclusive of life sciences and physical sciences.

day field trips in its large first year introductory course. Chemistry, Physics and Biology have recently introduced an innovative Advanced Interdisciplinary Research Laboratory course. Students work together in multidisciplinary teams to complete research projects, guided by a team of faculty advisors, and develop research skills while acquiring practical experience in project management. Discussion of the role of the HMALC in experiential learning is presented in section 7.

<u>Next Steps</u>: Sociology will introduce two new experiential learning courses in 2012–13, one an internship course, the other an innovative course in which students take a criminology course in a correctional institutional alongside prisoners. Economics will introduce a new field course and launch a web-based undergraduate journal.

<u>Next Steps</u>: The Office of the Dean invested in a temporary increase of central support for experiential learning in 2011–12 on a pilot basis. Given our academic units' plans to increase experiential learning and our students' clear indication of the value of these initiatives, such support will continue, pending a review of the best means of providing it. While it is difficult to measure the full extent of experiential learning opportunities, we can measure the number of courses and students in courses that offer significant hours of laboratory experience, service learning, field experience, internship experience, and supervised opportunities to practice skill-development. One measure of our success in these endeavours will be increase in the number of courses that provide substantial experiential learning opportunities and the number of students who have access to them. We will also consult with students to determine the types of experiential learning that have the greatest positive impact upon them.

<u>International Experiences</u>: We value the opportunity for our students to learn in other cultures as part of their education at UTM, and have recently done more to publicize University of Toronto exchange programs and our own Department of Language Studies' initiative to teach Italian language and culture courses in Florence. Our Department of Historical Studies is interested in developing in the medium term a study abroad course with the University of Qatar and in the short term a joint program with the National University in Singapore. We support and encourage these developments, and will provide more international learning opportunities for our students, while recognizing that development of UTM specific initiatives is very resource intensive and requires considerable time and attention.

<u>Next Steps</u>: We will increase the currently low number of students who participate in centrally administered exchange programs, by encouraging more collaboration involving our departments, the Centre for International Experience, and our UTM International Centre. For instance, we will develop a database of approved courses and prerequisites in support of international exchanges. We will ask our academic units to work with the Office of the Registrar to track the number of their students who participate in international learning experiences, and will work more centrally to identify and lower barriers to participation.

<u>Skills Development</u>: Skills development happens throughout our curricula (as is made clear when we outline how our programs match Undergraduate and Graduate Degree Learning Expectations, in the external review process through UTQAP). In addition, we take a systematic approach to the development of skills in our suite of transition programs (rezOne, utmOne, genOne, Head Start). Our transition programs provide support for research skills, information literacy, note taking, understanding of academic integrity, and opportunities for student engagement.

<u>Next Steps</u>: Going forward, we plan to supplement the current utmONE offerings by developing a series of semester long utmONE Scholars Seminars (in the short term we plan one each in the Sciences, Social Sciences, and Humanities) in order to give some of our strongest and best-prepared students an enhanced opportunity to refine their skills at research, writing, and oral presentations in an interdisciplinary context. These will be first year courses offered by some of our best faculty to some of our best and most highly motivated students. Securing support from donors for utmONE is an important advancement priority.

<u>Writing Skills</u>: One common theme that emerged from our academic units' plans wa the importance of investing in developing the writing skills of our students, driven both by concern that some students arrive at UTM without the writing skills they need to succeed in their academic work, and the importance of enhancing student writing in our programs as part of degree learning expectations. We are committed to a model of addressing writing skills within our existing courses and programs, rather than developing stand alone writing courses or assessments of writing skills. The Office of the Dean, working closely with the Robert Gillespie Academic Skills Centre, funds a number of departmental writing initiatives each year. This is the approach best supported by evidence-based research.

<u>Next Steps</u>: We will continue to address writing skills across the curriculum with three modifications in the short to medium term. First, learning from the success of the Faculty of Arts and Science Writing Instruction for Teaching Assistants Project, we pla to offer much enhanced training to teaching assistants involved in writing skills development, by training lead writing TAs across our academic disciplines. Second, we plan to offer more group based support for remedial writing instruction, rather than relying as extensively as we have on individual appointments. Third, we will encourage more academic units to take advantage of central funding available through the Graduate Expansion Fund (GEF) to support essay-writing clinics staffed by well-trained graduate students.

<u>Numeracy Skills</u>: A number of our units identified the need to support the numeracy skills of our students. Our department of Mathematical and Computational Sciences (MCS) and Office of the Registrar are piloting a half credit summer course in 2012 that helps prepare students for university calculus courses prior to the start of their first full year of study. We have changed program requirements for some of our programs in order to ensure that students are well aware of the math courses required for them to perform well in their courses. MCS has developed both a series of free precalculus

math videos, covering topics taught in secondary school mathematics courses, available as a tool to refresh our students' numeracy skills, and a series of first year math videos. Finally, students enrolled in UTM first year math courses have access to a free online tool called MyLabsPlus that diagnoses areas of strength and weakness in algebra, functions and graphs, and provides refresher modules, designed by our faculty, to help students address areas of weakness.

<u>Next Steps</u>: We will investigate the success of our pilot project of offering a university preparation calculus course. We will better publicize the tools available to assist with math skill development and will support departments' efforts to help students in ways targeted to their particular needs.

<u>Global Literacy Skills</u>: Global literacy skills are an important part of our curricula in a wide range of our academic units including Anthropology, Geography, Historical Studies, Language Studies, Political Science, Sociology and Visual Studies.

<u>Next Steps</u>: Language Studies is working towards development in the medium term of an interdisciplinary program in Global Fluency and Cross-Cultural Communications. We are in the process of developing an interdisciplinary Centre for South Asian Engagement that will help prepare students (through the study of language, culture, history, religion, politics and geography) to interact thoughtfully with members of South Asian communities, both diasporic communities in our local region and international communities abroad. Consultations with other relevant units at U o T have been part o the proces o development. As part of this project, our Political Science department will add in the short-term two new courses in this domain. Our advancement efforts have already borne fruit in support of this initiative, and we will increase these efforts.

<u>Career Education</u>: Finally, the ability to understand career options and analyze the factors that lead to the best match between skills, interests, knowledge and careers are an important set of lifelong learning skills. Our UTM Career Centre offers a wide range of programs and activities in support of career education including individual appointments, group sessions, networking nights, career panels, alumni profiles, information about careers by major, and information about educational opportunities. Many of the co-curricular offerings of our departments assist students in learning about the careers that interest them, and several of our academic societies offer forums to exchange career advice and knowledge about career options.

<u>Next Steps</u>: We support the Career Centre's development in the short to medium term of an integrated vision for career education at UTM, involving more information sharing and greater coordination between career education activities that occur outside and within the centre. This plan has the potential to increase not only the number of opportunities for our students to develop these skills, but also the quality of our career education, for instance as students are encouraged to reflect upon what they learn in each encounter and apply this to their career decision-making.

3. UTM is committed to being a campus that promotes and supports

internationally significant research.

<u>Interdisciplinary and Trans-Disciplinary Research Initiatives</u>: Internationally significant research is conducted within and across all of our academic units, both by faculty working on individual projects, and by faculty working in research clusters and on major collaborative projects. For instance, UTM is one of the lead collaborating divisions that successfully developed a proposal for a university wide Institute for Human Development (IHD). The goal of the IHD is to improve human well-being and potential through a combination of trans-disciplinary research related to human development, and knowledge mobilization with the goal of making appreciable improvements to human health, learning, and social and emotional functioning.

<u>Next Steps</u>: We will continue to be involved in fostering trans-disciplinary research on major issues. Two significant trans-disciplinary initiatives currently in development at UTM are a proposed Centre for South Asian Engagement (that will foster research, education, and community outreach with respect to South Asia and the South Asian diaspora) and the Institute for Management and Innovation (IMI) that will develop interdisciplinary research clusters that involve study of management. IMI is described in more detail in section 4.

<u>Support for Research</u>: In addition to large trans-disciplinary and interdisciplinary research projects, we support a variety of smaller scale (individual and small group) research projects, both within and across disciplinary boundaries. One such project is the newly established Network for Sensory Research, an international network conducting interdisciplinary research on perception, led by a UTM philosophy faculty member. Recent examples of cases where significant grant writing support has been provided include: proposals from individuals to the Canada Foundation for Innovation for infrastructure to support research, as these proposals are challenging to assemble due to the need for applications to delve into socio-economic impact and align with the strategic mission of the University; the Canada Research Chairs program, and the provincial Early Researcher Awards program that offer significant opportunities for leading researchers to become internationally established. Financial leveraging has also been provided in numerous situations where research instruments serve multiple users, some examples being environmental chambers, imaging instruments, and the facilities associated with the Canadian Drosophila Microarray Centre at UTM.

<u>Next Steps</u>: Our Department of Mathematics and Computational Science is ver interested in developing an Ontario Nonlinear Centre, taking advantage not only of the research expertise at UTM but in other Ontario universities as well. We encourage this type of activity where UTM offers leadership for multi-institutional initiatives. The UTM Research Office will provide significant grant writing support for proposals that concurrently approach different granting committees and involve collaborations, particularly in support of major research equipment needs. The UTM Research Office will also provide communications with research offices at partnering institutions for facilitating the process of assembling and approving proposals, and for dissemination of any research funds that are to be distributed. UTM's allocation of funds and space to support new hires will support the research needs and experiences of our faculty and students, as new faculty members make new collaborative endeavours possible, while supporting increased mentorship of and support for undergraduate and graduate research experiences. Funds for new hires will for the first time include guaranteed minimum start up funds for new tenure stream hires in the humanities and social sciences. In addition, the UTM Research Office and Office of the Dean will work with departments to identify mechanisms for encouraging, when appropriate, more research activity to take place on the UTM campus, particularly in those humanities and social science departments where selective investments could provide a more supportive research environment.

<u>TriCouncil Funding</u>: While some of our academic units receive grant funding that exceeds the average of faculty in the same disciplines on our other campuses; others la behind, in part due to larger numbers of faculty at earlier stages of their careers, but sometimes due to a lesser application or success rate. Many of our academic units have undertaken initiatives to increase applications for research grants and success rates in applications by providing a supportive network to review grant applications. Activities at the academic unit add to the services available through the Office of the Vice Principal Research. At the earliest stages, the Office provides assistance in effective team development and application strategies. For particularly strategic projects, the Office may provide seed-funding and matching support. Once a proposal is in the works, researchers can take advantage of one-on-one proposal review with an in-house editorial specialist and a blind peer-review process from seasoned UTM researchers who have volunteered to provide discipline-specific

insights and advice. Increases in tri-council application and success rates will be an important metric of our success as a division in research activities.

<u>Research Assistance</u>: We will continue to support projects that make use of graduate expansion funds (GEF) in order to provide research assistance, particularly to new faculty. More recently, our faculty members are taking advantage of the work-study program in order to hire undergraduate research assistants. Increases in the number of opportunities for graduate and undergraduate students to be involved with faculty research will be another metric of our success in research activities.

<u>Next Steps</u>: Beginning in 2012–13, the Office of the Dean will supply the employers' contribution for a limited number of undergraduate work-study students to assist individual faculty members with their research. This will assist faculty while providing our undergraduates with excellent opportunities to engage in cutting-edge research.

<u>Graduate Student Research</u>: All tenure stream UTM faculty engage in supervision of graduate student research, mainly through their participation in tricampus graduate departments, and also through their participation in the research projects of our professional masters students (e.g. the research projects of Masters of Biotechnology and Masters of Management in Innovation students). Historically, graduate student research activities at UTM have taken place for the most part in the natural sciences (including disciplines such as Anthropology and Geography that include natural science researchers), with faculty whose research labs and primary research activities

are located at UTM. Recently graduate students in humanities and social sciences (notably Sociology and Historical Studies) have been affiliating with UTM and we welcome this new development, while recognizing that there will not always be sufficient reason for graduate students supervised by UTM faculty members to do their research on our campus. We will continue our practice of assessing the specific needs of hires in the natural sciences with respect to labs, equipment, and research teams. Guaranteed minimum start up funds for new hires in the humanities and social sciences should enhance opportunities for graduate students to engage in the research activities of hires in these areas at UTM.

<u>Next Steps</u>: We will encourage more graduate students to affiliate with UTM by publicizing the benefits and clarifying the process involved. Throughout the pla period, we will track the numbers of graduate students supervised by UTM faculty, regardless of campus affiliation.

<u>Research Infrastructure</u>: While we provide high quality research space to new hires, the existing research infrastructure is in need of renewal.

<u>Next Steps</u>: We will make investments in improving existing research infrastructure and in providing additional new capability. In the plan period, we will make significant investments in improving our backup power, fume hoods, and HVAC system. These investments in research infrastructure will total approximately \$8 million. Throughout the plan period we will undertake major renovations to research laboratories in the A and D-Wing of our Davis Building at a cost of nearly \$6 million. We will invest in construction of a Research Greenhouse that will support a sizeable cluster of researchers who focus on plants, the environment and global change. Further investment in applied science infrastructure will be sought from donor and government support.

<u>Publicizing Research Achievements</u>: In addition to enabling our students and faculty members' research endeavours, we wish to do more to publicize their achievements.

<u>Next Steps</u>: The new UTM Library initiative Focus on Research is one vehicle we will use to publicize our faculty members' research, in addition to closer communication between department chairs and our Marketing and Communications professionals, who will continue to publicize the research of our students and faculty, and offer media training to researchers. The media training assists faculty in conveying their complex research projects in clear and informative ways to various stakeholder groups.

4. UTM is committed to being a campus with excellent and rigorous undergraduate, graduate and professional programs and to provide a relevant and rich mix of distinctive and interdisciplinary courses and programs.

<u>Undergraduate programs</u>: We are committed to expansion in undergraduate enrolments through the plan period, at a rate of approximately five per cent per year in

domestic enrolments. We expect this expansion to be achieved while we maintain and improve admissions standards. This will require us to increase our efforts at recruitment (both domestically and internationally). International student recruitment plans are described in section 11.

<u>Next Steps</u>: Our chief attraction to domestic students will be the quality and range of our programs, including new undergraduate programs we are developing. The Office of the Dean is developing a Curriculum Handbook to assist our academic units with planning for curricular change. In order to increasingly attract the best students from the Western GTA, we will work with local municipal governments to attend to issues related to transit and will continue to work with employers to ascertain local educational needs.

<u>Collaborations with Undergraduate Divisions</u>: The successful launch of the Mississauga Academy of Medicine (MAM) in 2011 reflects very good relationships forged between UTM, the Faculty of Medicine, and the Credit Valley Hospital and Trillium Health Centre. Each entering MAM class has 54 students, for a total of 216 at steady state. MAM students have chosen to be members of our undergraduate student union (UTMSU), are active in outreach activities with members of our local communities, and have generously shared stories of their journeys to medical school and experiences within it with UTM undergraduates. Currently faculty in Biology, Chemical and Physical Sciences, and Psychology teach MAM students.

<u>Next Steps</u>: In the short term we will explore, with the Faculty of Applied Sciences and Engineering (FASE), the possibility of offering Track One (the general first year offerin in Engineering that allows subsequent streaming into programs) at UTM, over a twoyear period. This would allow students to complete a minor program at UTM in addition to their Engineering program. Many of the Track One courses are currently available at UTM. New courses would include: Engineering Strategies and Practice, Electrical Fundamentals, Circuits, and Ethics in Engineering. The long-term goal would be to develop a new program stream (in Management Sciences Engineering) at UTM, to supplement the 9 program streams currently offered by FASE. This long-term goal will require us to identify funding sources from government and/or benefactors.

<u>Traditional Disciplinary Programs</u>: We continue to offer a wide range of programs in the Arts and Sciences, and in Management. Some are fairly traditional disciplinary programs (for instance in Chemistry, Economics, English, Mathematics, Philosophy, and Political Science). Recent external reviews have pointed to our research and teaching strengths in our traditional disciplinary programs. We recognize the importance of continuing to support these programs with excellent tenure stream and teaching stream faculty who expose our students to the breadth of these disciplines, while also offering advanced understanding of important topics with appropriate depth. Some of our programs are small and have had to be innovative in order to offer complete programs on our campus (Physics, for instance, has developed joint courses with Chemistry). <u>Next Steps</u>: We will explore more joint courses, including courses aimed both at students in our relatively small Earth Sciences program and our larger Geography programs. Where enrolments do not sustain our ability to offer a complete program (for instance in Astronomy), we will offer only breadth courses. We will develop new disciplinary programs well supported by faculty research. For instance, Biology is exploring development of a program in Plant Biology to capitalize on our research expertise in this area.

<u>Interdisciplinary and Distinctive Programs</u>: Some of our programs are more interdisciplinary or distinctive. We have joint programs with Sheridan College: Theatre and Drama Studies, Art and Art History, Communication, Culture and Information Technology (CCT) and Visual Culture and Communication. These combine practical and more theoretically oriented forms of learning. For instance, Theatre and Drama Studies combines academic study of theatre with conservatory-level acting training. Its theatre productions also provide an important opportunity to connect with our alumni and community, and offer exposure to the arts to our student body.

We have just developed a new program in Interactive Digital Media with the Faculty of Information. Students will learn to design and create virtual environments suitable for collaboration, communication, learning and exploration. Our Department of Language Studies is distinctive in its emphasis on language teaching and learning and the integration of linguistics and applied linguistics across many of its programs. Our departments of Historical Studies and Visual Studies have developed interdisciplinary approaches to the studies of their subjects: a global approach to the study of history, religion, classics, and women's gender studies for the former, a broad-based approach to the study of the visual (including fine arts, cinema, digital media and television) for the latter. Our departments of Anthropology and Geography combine the social and the natural sciences in ways that give our students a multidisciplinary understanding of human societies and human environments. Anthropology combines linguistic and socio-cultural anthropology, archaeology and biological anthropology, while Geography offers programs in human-environment interaction, environmental management, environmental science, and geographical information systems. We offer an interdisciplinary program in Forensic Science with four streams (Anthropology, Biology, Chemistry and Psychology).

Our Department of Biology offers a rich suite of programs that allow students to explore the breadth of Biology or choose a more focused path with interdisciplinary programs such as Biotechnology or Biomedical Communications. Our Department of Psychology offers a range of programs including an interdisciplinary program in Behaviour, Genetics and Neurobiology (combining psychology with biology, chemistry and mathematics) and the Exceptionality in Human Learning program that provides an understanding of typical and atypical human development, abnormal behavior and disability. Our Department of Sociology offers programs in Sociology and Criminology and Socio-legal Studies – the latter is richly interdisciplinary, and includes courses in Anthropology, Communication, Culture and Information Technology, Forensics, Geography, Philosophy, Political Science and Psychology.

<u>Next Steps</u>: We are working towards accreditation of the Forensic program streams where accreditation is available (Biology and Chemistry). This distinctive program offers students a combination of theoretical knowledge and practical experience, and has the potential to grow with increased investments in relevant researchers and instructors with professional expertise. We will encourage development of new interdisciplinary programs and courses of significant interest to students. For instance, Sociology plans in the medium-term to develop a new interdisciplinary program in Social Policy (to include courses in Anthropology Economics, Geography, History and Political Science), and also to develop strength in the area of Sociology of Health and Mental Health, an area of research and teaching that would fit well with the Institute of Human Development and with our recent launch of the Mississauga Academy of Medicine.

<u>Next Steps</u>: In addition to creating new programs, we will inevitably close others throughout the plan period. Programs may be closed for a number of reasons, primarily when enrolments are low or when faculty research and teaching interests have shifted to other areas and can no longer support them. When program enrolments are very low and they require our academic units to offer courses they would not otherwise offer (courses not required for other programs or popular as electives), they will close. Our planning exercise has identified one program (in Human Resources and Industrial Relations) as no longer sufficiently supported by faculty research and teaching interests and we expect it will close.

Next Steps: We offer a variety of ways to study management, either alone, as part of our commerce program, or in combination with other subjects. This will be enhanced as we develop a significantly new way of offering business-related education in the Institute for Management and Innovation (IMI). IMI will bring together undergraduate programs with professional graduate programs (discussed immediately below) that are characterized by their interdisciplinary nature and combine the study of a particular science, profession or industrial sector with that of management, B including both graduate and undergraduate programs with a research and scholarship mission, it will offer an excellent academic platform for our students by implementing, at the undergraduate level, pedagogical values learned from the graduate programs developed at UTM, and by giving better opportunities to facilitate movement from undergraduate into graduate programs. The vision for IMI is for different disciplines to work together to produce mission-focused managers and future leaders with a combination of management skills and depth in their chosen field of science, technology or the professions. Both its undergraduate and graduate programs will be closely linked to the external community, with a strong emphasis on experiential learning including opportunities for students to learn by working in the community under the supervision of our faculty. We have already engaged in advancement activities with respect to this approach to business education, and our initial efforts have been successful. Support for IMI will be a major focus of our advancement efforts.

<u>Professional Graduate Programs</u>: We offer a range of professional graduate programs. Some, such as the Master of Management & Professional Accounting (MMPA), Masters of Biotechnology (MBiotech), and Diploma in Investigative & Forensic Accounting (DIFA) are offered through the Professional Graduate Program Centre (PGPC). Others such as the Masters of Management in Innovation (MMI) and the Masters of Science in Biomedical Communications (MScBMC) are offered at UTM through collaboration with another graduate unit. The former's graduate unit is the Institute for Health Policy Management and Evaluation, the latter's is the Institute of Medical Science.

<u>Next Steps</u>: We are awaiting provincial approval of the Masters of Science in Sustainability Management (MScSM), and are exploring development of a Masters in Communication of Health Sciences, a program that will focus on the translation of scientific, health and medical information using multiple technological platforms and strategies.

<u>Next Steps</u>: As many of the professional graduate programs rely in part on instructors without continuing appointments, we will improve the stability of the instructional resources for them through more tenure- and teaching-stream hires. While some of the programs are interested in expanding, we will carefully monitor trends in applications and trends in placement (both placement in internships and placement upo graduation) before expanding any of them. Our professional masters programs are for the most part united by a combination of the study of management (to greater or lesser degrees in the different programs) with the study of a particular profession or economic sector. We intend them to be united through their affiliation with our proposed Institute for Management and Innovation (IMI), discussed above. Those with a substantial emphasis on the study of management may well be better served by having IMI serve as their graduate unit, rather than the PGPC.

<u>Tricampus Doctoral Programs</u>: Participation in the life of tricampus doctoral programs is vital to the research of our faculty, our ability to recruit well, and the researchintensiveness of our programs. As discussed in the sections on research, we encourage graduate students supervised by UTM faculty whose research is primarily conducted at UTM to affiliate with our campus. Most graduate students in the natural sciences and some in the social sciences and humanities affiliate with us. Graduate students who do no formally affiliate with our campus are nonetheless major source o teachin assistants at UTM. Our academic units also mak use of graduate expansion funding to support other ways o bringing graduate students into interaction with UTM undergraduates.

<u>Next Steps</u>: We are interested in developing streams of existing tricampus graduate programs. In the short-term we are working on developing a stream of Cell and Systems Biology – Integrative Biology – to be offered primarily at UTM. Integrative Biology would draw upon the strengths of our faculty not only in Biological Science (uniting an approach at the cell and systems level with an approach at the ecological and evolutionary level) but also in Chemical and Physical Sciences, and Mathematical and Computational Sciences. The proposed stream would offer training in a primary discipline in Biological Sciences supplemented by complementary training in an allied discipline through course offerings, practical experience courses, lab rotations, and cosupervisory relationships. Our long-term vision includes exploration of other ways in which we may draw upon research clusters at UTM to offer campus-based streams of existing PhD programs; particularly as our faculty complement grows.

5. UTM is committed to maintaining a research--intensive culture that creates opportunities for our students to engage in research, experiential learning, and creative activity.

Research-Intensive Student Experiences: We have indicated above our commitment to a research-intensive culture by supporting faculty research and have alluded to the roles our faculty members play in supporting students' engagement in research. Recent external reviews (including those of Psychology and Philosophy in 2011-12, and of Biology and Political Science in 2010-11), have stressed our success in exposing students to the latest developments in research. Both graduate and undergraduate students may be involved in research either by becoming involved in faculty research projects or by having their own independent research supervised by faculty. We have observed a heartening trend in which faculty provide increasing numbers of research opportunities to our undergraduates, including but not only in our Research Opportunity Program (ROP) courses which give students course credit for assistin with faculty research projects. In 2007-8 we had 101 students engaged in ROP courses in 2012-13 we have 159 students enrolled. Beyond the ROP, our departments have either maintained or increased other opportunities for undergraduates to engage in faculty research and have developed courses that enable students to refine their own research skills (including independent research project, independent study, and thesis courses). In addition, our professors offer our students both volunteer and paid (workstudy) opportunities to assist with faculty research projects. While the majority of these opportunities occur in departments in the natural sciences, they are also offered by a considerable number of faculty members in our humanities and social sciences departments.

<u>Next Steps</u>: We will further increase the number of ROP courses taken by UTM students throughout the plan period and will make increased funding available to support these courses.

<u>Next Steps</u>: Despite the increase in overall research opportunities, we wish to offer a wider range of research-intensive and ROP courses to our undergraduate students working in the humanities (beyond Historical Studies, which makes many such opportunities available). We are in the planning stages of a new partnership with the Jackman Humanities Institute to fund more ROPs in the humanities and encourage more humanities faculty to participate by sharing narratives about successful projects. For instance, one of our departments is piloting an online version of an ROP course. If successful, this may serve as a model for other departments. In addition, UTM faculty members from many different disciplines have expressed interest in supervising research projects by Mississauga Academy of Medicine (MAM) students. We are committed to enhancing research (and teaching) connections between MAM and the broader UTM community.

<u>Teaching Informed by Research Developments</u>: A research-intensive culture requires close integration of research into our programs and courses, both in terms of the design of curriculum (regularly revised to reflect current developments) and via faculty members using their own research to inform their teaching. For instance Psychology has recently introduced a foundational second year course in the Psychology of Human Communication and offers special topics courses at the fourth year level in areas of faculty research expertise. Women's and Gender Studies added new courses on gender and popular culture and gender and cyberspace. Language Studies has capitalized on faculty research strengths in language learning and applied linguistics to introduce new courses that stress second language acquisition, and to impart learning-to-learn skills.

<u>Next Steps</u>: We will continue to innovate with respect to courses driven by developments in research. For instance, Geography is developing new courses in population geography given the existing research strength of the faculty in the area of population dynamics, immigration, settlement and access to services. Integration of faculty research into teaching occurs not only at the level of senior undergraduate and graduate courses, but also in more introductory courses. Beginning in 2012-13 all of our Physics tenure stream faculty will offer guest lectures in each term of our Introductory Physics courses, exposing students to the latest developments in their own research. We will encourage all of our departments to increase first year students' exposure to the breadth of our faculty members' research interests.

<u>Graduate Student Support for Research-Intensive Activities</u>: Our departments have access to both departmental and decanal graduate expansion funds (GEF) that can be used to foster interaction between graduate and undergraduate students, and enhance the research experience of both. One innovative project is the UTM Sociology Research Mentoring Program. It provides weekly mentoring and instruction by Sociolog graduate students of undergraduate students in our Research Opportunity Program courses. Many of our units offer seminar series in which graduate students either speak about their own research to undergraduates or organize visits of professors from other institutions, and prepare more junior students to participate meaningfully in discussion of the visitors' research. Other departments have used GEF to fund workshops on topics such as research productivity tools (jointly run with the UTM Library), to host graduate student conferences on our campus, to fund graduate student travel, to host lectures, retreats and debates, or to have graduate students assist undergraduates in showcasing their own research through an undergraduate journal.

<u>Next Steps</u>: Our academic units will be given opportunities to share best practices in encouraging a research-intensive culture at UTM.

<u>Next Steps</u>: Interactions between graduate and undergraduate students foster a research-intensive culture and are a major focus of our proposed Institute for Management and Innovation and Centre for South Asian Engagement.

Experiential learning and creative activity are discussed in section 2.

6. UTM values excellence in teaching, aiming always to recruit faculty committed to teaching of the highest quality, and offering supports to all instructors striving for pedagogical and instructional excellence.

Quality of Instruction: Our students are generally satisfied with the quality of the instruction they receive (as indicated in course evaluations and in student surveys and consultations undertaken by many of our units in the academic planning process). However, we recognize that we can do better. A number of our departments (such as Language Studies and English and Drama) have recently introduced changes or are in the process of introducing changes to ensure that our tenure stream and teaching stream faculty teach a higher proportion of our students. This is an important step given the high student: faculty ratio that currently exists at UTM, a ratio that has been a major concern to external reviewers over the past several years. While we have many excellent sessional lecturers, faculty in continuing positions are in a better position to provide more of their time and attention to our students.

<u>Next Steps</u>: Increasing the proportion of our students taught by faculty in continuing positions will be an important measure of the success of our divisional plan. In addition, we plan to do more to encourage our faculty to engage in professional development activities with respect to teaching, in part by increasing the visibility of those opportunities, recognition of faculty who take them up, and by making more of them available on our campus.

<u>Teaching Quality, Hiring, and Promotion</u>: UTM's commitment to pedagogical and instructional excellence starts in the hiring process, and our careful attention to the teaching quality of all tenure stream and teaching stream hires. It continues with our annual evaluation of faculty, and the processes for becoming tenured, promoted to senior lecturer, or promoted to sessional lecturer 2 or 3.

<u>Next Steps</u>: We have recently encouraged our departments who have the most well developed approaches to recruiting and supporting excellent teachers to share these with fellow departmental chairs and directors, and will continue to support sharing best practices in this area.

<u>Sharing Innovations and Successes</u>: Many of our departments have or are instituting informal lunch and learn sessions and the like in which faculty share teaching innovations and methods with one another. Some have developed more formal mechanisms. For instance, the department of Mathematical and Computational Sciences has provided leadership with respect to InteGrate, which brings together faculty, staff and librarians with an interest in deploying new technologies in the classroom. The Teaching-Learning-Collaboration group is another means for UTM faculty and staff to share ideas, through a website, teaching fair, and activities in partnership with the RGASC. The UTM Library sponsored Learning Technology team promotes a team approach to teaching with technology, with the participation of faculty, librarians, staff and students, including departmental technical support staff, staff in Microelectronics, Computing Services, the RGASC, CTSI, and AccessAbility Resource Centre.

<u>Next Steps</u>: We are interested in promoting more widespread sharing of pedagogical innovations and successes within the UTM community. While all UTM faculty are now formally assigned mentors, more will be done to ensure that mentors attend equally to teaching and research for all new hires, and that departments publicize all the resources available to our faculty, new and continuing, to enhance their teaching skills.

<u>Supports for Teaching Excellence</u>: The UTM Robert Gillespie Academic Skills Centre (RGASC), the University of Toronto Centre for Teaching Support and Innovation (CTSI and the UTM Hazel McCallion Academic Learning Centre (HMALC) provide support for teaching excellence. All offer, individually or in partnership, individual sessions, small group workshops and seminars, and means to exchange ideas and best practices in larger groups and conferences. In 2011–12 we appointed our first Director of Teaching and Learning Support and Innovation.

<u>Next Steps</u>: Two of the Director's most important missions will be to provide greater visibility to the innovative and excellent pedagogical practices already occurring at UTM and to facilitate close cooperation amongst the various units at UTM and University of Toronto more broadly that support such practices. Greater coordination of these units' efforts was one of the main recommendations of the UTM Instructional Technology Task Force. Already cooperation has begun in the development and delivery of a CTSI Course Design Institute at UTM. One of the most important tasks with respect to instructional technology will be to develop better mechanisms for sharing insights, difficulties, and best practices amongst faculty, librarians and staff, for instance with respect to online and blended learning.

<u>Teaching Spaces</u>: If our faculty members are to be excellent teachers, they must have the resources they need at their disposal. The new Instructional Building has delivered very well designed new classrooms, large and small. We have very significantly upgraded and redesigned our Chemistry teaching laboratories (the majority were complete in the fall of 2011, with the last phase to be completed in the fall of 2013).

<u>Next Steps</u>: We have approved plans underway to upgrade our Biology teaching laboratories (4th floor labs will be renovated by the fall of 2012, 2nd floor labs in 2014 and 2015). In addition, we plan renovations to our teaching labs in Physics (fall of 2013), Earth Sciences and Geography (spring of 2015). Mathematical and Computational Sciences and Psychology will receive new teaching and research laboratories in the fall of 2014 and Anthropology teaching labs will be renovated in two phases (summer of 2012 and fall of 2015). From 2011-2015, we will spend approximately \$36 million on renovations to teaching laboratories, with \$25 million of this supplied by government funding.

<u>Teaching Assistant Support</u>: We should be assessed in part on our success in improving these teaching laboratories. In other disciplines, such as English and Philosophy, the supports required for teaching excellence are not laboratories but teaching assistant support adequate to allow for small seminar discussions led by graduate students.

<u>Next Steps</u>: We are increasing the teaching assistant support for both departments to ensure that large classes can have tutorial discussion groups and students can have the benefit of exchanging ideas and developing their critical inquiry skills. In these disciplines an important measure of success will be the extent to which we provide opportunities for small group discussion in courses with large enrolments.

The activities and investments in support of teaching excellence, coupled with activities in support of research (detailed in section 3) and those that promote research-intensiveness (section 5) express the importance we give to cultivating excellence in both teaching and research while ensuring that undergraduate and graduate teaching by UTM faculty is informed by pedagogical, disciplinary and interdisciplinary scholarship.

7. UTM's courses, programs and scholarship will be supported by strong and engaging library collections, resources and services, innovative information technologies, and teaching and learning spaces that will enrich and enliven the academic experience.

<u>University of Toronto Library Contributions</u>: The Hazel McCallion Academic Learning Centre (HMALC) is part o an incredibly strong University o Toronto library system that provides terrific collections, resources and services. Th HMALC is a vital institution at UTM, providing, bot o it ow an a part o th central library system not only access to research and study materials, expert advice, and study space, but also support for student and faculty research, support for pedagogical development, strong support for instructional technologies (including Blackboard, our learning management system), and support for student skill development (including but not limited to information literacy skills), both in our suite of transition programs and for more advanced students. The HMALC attracts between 8,000 and 10,000 visits per day.

Library Support of Research: The HMALC and our of T library system as whole provide the research resources needed, in print or digital form, for our student and faculty researchers. The HMALC helps generate resources through its support for the digitization of images (particularly for our Departments of Anthropology, Geography, and Visual Studies), support for digital research, and support for the curation and management of research data. Our libraries not only provides access to resource materials needed for the research of our faculty and students, but also play a key role in publicizing the results of that research, whether through the HMALC's support of undergraduate departmental journals, the library system's new initiative of Focus on Research, or through promotion of knowledge about intellectual property, copyright, and Open Access publication.

<u>Next Steps</u>: The HMALC's proposed Research Garden (one of our priorities for advancement activities) would be an excellent vehicle to enhance undergraduate research opportunities and provide another means for faculty and students to engage in close interaction connected to both shared and individual research projects.

<u>HMALC Support of Academic Units</u>: Liaison librarians are assigned to each academic department or institute. They not only ensure that appropriate resource materials support courses and programs, but also that students' attention is drawn

to the resources available, and students develop the skills needed to evaluate the relevance and value of those resources. The HMALC plays an important role in experiential learning at UTM, including in the Li Koon Chun Finance Learning Centre which provides services such as simulated trading and foreign exchange competitions, stock challenges, and financial literacy.

<u>Next Steps</u>: The HMALC is committed to working more closely with academic units to develop collaborative service learning and experiential learning projects and will be an important resource in our expansion of experiential learning opportunities at UTM.

<u>Library Support for Instructional Technology</u>: Finally, the library is a very significant participant in support of instructional technologies and pedagogical development. It supports our Learning Management System (and has developed clear training and guidelines for departmental support persons for Blackboard). It played a leading role in the initial development of a campus wide strategy for support for instructional technology (our 2011-12 Instructional Technology Task Force) and will be a key player in enacting the recommendations of the task force.

<u>Next Steps</u>: The HMALC will be a technology incubator through services such as the T-Room: Technology, Teach, Touch, and by providing access to cutting-edge technologies for small-group instruction, and for student and faculty use and experimentation (a partnership with our Institute of Communication, Culture and Information Technology). It is working towards developing a community of faculty involved in online and blended learning and has consistently supplied leadership in the evaluation and implementation of instructional technologies at UTM. Together with the central University of Toronto CTSI (Centre for Teaching Support and Innovation) and UTM's RGASC, the HMALC is expected to play a lead role in such initiatives as enhanced TA training, delivery of Course Design Institutes at UTM, and program development in support of technology use in our classrooms and in blended and online learning.

8. UTM values the many contributions its administrative staff, academic staff and librarians make to our academic mission and to the academic experience of our students, and is committed to maintaining a supportive environment for our staff, one that foster synergies and community.

<u>Pressures on Staff</u>: As undergraduate and graduate enrolments have grown, our administrative staff complement has not kept pace, putting pressure on our staff members who are committed to high standards of service delivery in support of our faculty and students.

<u>Next Steps</u>: As a result of a review of unit plans, some of the most urgent requirements for new administrative staff positions in our academic units will be addressed in 2012–13, including increased support for academic advising and teaching laboratory supervision. In addition we will fund increased central support for staff positions in experiential learning and community outreach. Further staff hires in key areas, as we grow, will be a priority.

<u>Next Steps</u>: We are interested in increasing the number of professional development opportunities available to our staff, including opportunities available at UTM. As we hire a new campus based Equity Officer, this will make some new professional development offerings available to our staff.

<u>Partnerships</u>: The academic planning process was an opportunity for our departments to engage more deeply and consultatively with librarians and staff in campus wide services. Some excellent joint ventures were observed and details of successful partnerships have been and will continue to be shared with other departments at chairs' meetings. Examples include the HMALC's role in hosting an undergraduate electronic journal in our Department of Historical Studies and collaborating with departments to offer financial learning to commerce, economics, and management students through our Li Koon Chun Finance Learning Centre, and the Career Centre's role in departmental professional development programs in Biology, Geography, and Management. In addition, our UTM Biology Faculty-led Postgraduate Mentoring Program is a successful collaboration amongst Biology faculty, graduate students, staff in the RGASC, our Career Centre and a librarian in the HMALC to assist graduate students with a wide range of workshops relevant to career development, managing people, and research productivity.

<u>Next Steps</u>: We will use a variety of forums, including chairs' meetings, to publicize excellent initiatives and encourage further partnerships between departments and our librarians and staff.

9. UTM will strive to ensure that its graduates are educated in the broadest sense of the term, and have developed the ability to think clearly, to inquire deeply, to judge objectively, and to contribute constructively to society.

Degree Level Expectations: Our undergraduate and graduate degree level expectations make it clear that our mission is to ensure that all of our graduates develop the skills outlined above. Our UTM Undergraduate Degree Level Expectations emphasize six major areas: Depth and Breadth of Knowledge, Knowledge of Methodologies, Application of Knowledge, Communication Skills, Awareness of Limits of Knowledge, and Autonomy and Professional Capacity. Our University of Toronto Graduate Degree Level Expectations for Masters programs emphasize Depth and Breadth of Knowledge, Research and Scholarship, Level of Application of Knowledge, Professional Capacity/Autonomy, Level of Communications Skills, and Awareness of Limits of Knowledge (with advanced expectations at each level as compared to undergraduate programs).

<u>External Reviews</u>: Each time our programs undergo external review as part of the UTQAP review cycle, they engage in a self-study that maps their curricula against these degree level expectations, and our external review teams provide commentary as to the ways in which our programs enable our students to develop the skills to think clearly, inquire deeply, judge objectively, and contribute to society.

<u>Student Contributions to our Community</u>: We strongly encourage our students to engage in extracurricular and co-curricular activities that enhance these skills. We are proud of the many constructive contributions our students make in their extracurricular volunteer work and in experiential learning and service learning courses where they volunteer many hundreds of hours of their time to community businesses and organizations.

<u>Next Steps</u>: We plan to support more internship courses, and already have some in development.

10. UTM values the inclusion and involvement of its graduates as life-long members of the University community who make significant contributions to its on-going life and reputation.

<u>Alumni Roles</u>: UTM has a strong and active alumni association, and a relatively small number of key and dedicated alumni play important roles in governance, in advancement activities, and career education, whether through job shadowing mentorship, or participation in networking and career panels. In addition, our alumni help provide experiential learning opportunities to our students as they work with our faculty to enable our students to learn while working as volunteers within businesses and community organizations.

<u>Desire for Further Alumni Involvement</u>: Interactions at the level of departments and programs are not frequent, but are much desired by our faculty and students. One innovative proposal for involving alumni in learning opportunities for undergraduate students is the Philosophy department's plan to host a UTM Alumni Speaker Series, bringing back philosophy alumni who have pursued advanced degrees to speak to and interact with undergraduates at UTM. When interactions between alumni and current students occur (for instance when alumni attend award nights and participate in career panels), both our current students and our alumni benefit from the interactions.

<u>Next Steps</u>: Our academic units have signaled that they often find it difficult to obtain accurate information about their graduates, and would like greater support in making and retaining connections with their alumni. We will foster closer connections between our alumni and the students and faculty in our departments and programs by developing a more accurate database of our alumni. The Office of the Dean, Career Centre, and Office of Advancement will together explore ways for our alumni to become more involved in offering mentorship, career information, and opportunities for service and experiential learning. Current proposals for governance reform at UTM would result in expanded opportunities for alumni involvement at UTM, by increasing the number of seats reserved for alumni in our deliberative bodies. The role of alumni in recruiting students outside the GTA is discussed in section 11.

11. UTM wishes to increase its ability to attract students from outside the GTA, from all of Canada and abroad, in the belief that a diverse student body enriches

the educational experience of its campus.

<u>International Student Recruitment</u>: From 2007-8 to 2011-12, our percentage of international new undergraduate intake has risen from 8.47 to 15.22%. Our recruitment of international students will be supported by the efforts of our recently hired Director of International Academic Liaisons and from new partnerships with the School of Continuing Studies (SCS) and the Peel District School Board (PDSB). With SCS, we jointly offer Academic Culture and English – ACE – aimed at academically strong international students who have already studied for at least one year at a Canadian educational institution, but could benefit from further study of English either just prior to (summer ACE) or during the academic year (fall-winter ACE). We are partners with PDSB and Sheridan College in developing smooth transitions for international students attending secondary school in PDSB.

<u>Next Steps</u>: Our alumni have recently begun to play a more significant role in our recruitment activities, and plans are underway to significantly increase the role they play in recruiting students from outside the GTA, including international students. These alumni are some of our best ambassadors, and have signaled their willingness to share their experiences with potential applicants to our programs.

<u>Next Steps</u>: In the fall of 2012, our Department of Language Studies will launch a new minor program in English Language and Linguistics that will allow non-native Englis speakers to improve their sociolinguistic and communicative competence in the English language. We expect this will be quite attractive to international students.

<u>Next Steps</u>: We aim to increase ne international undergraduate student intake to at least 17% o our incomin class by 2015. Early indications are that we have reached this target for the 2012-13 incoming class. If it seems feasible, we may aim to have 20% of ou new undergraduate student intake be international. As a result, it will be very important to offer increased support for our international students – through our International Student Centre, academic advising in the Office of the Registrar, and ESL support in our RGASC and through partnership with the School of Continuing Studies. In 2012-13 we will invest in additional staff to provide support for the development of transition programming for international students. We will hire 3rd and 4th year international undergraduate students to provide peer-based transition support for entering international students.

<u>Opportunities to Increase Awareness of UTM</u>: We have participated this past year in a centrally supported pilot project for online course development, and will continue to work in this area. Online courses and our plan for a UTM based iTunes portal may be used as vehicles to increase awareness of the educational opportunities available at UTM to students across Ontario, Canada, and beyond.

<u>Next Steps</u>: We are working in the short-term with the Faculty of Information to develop a proposal for a Combined Program involving the Communication, Culture and Information Technology undergraduate program, the new Interactive Digital Media undergraduate program, and the Masters of Information. We anticipate that the development of new and distinctive programs, including programs such as the above-mentioned that allow talented and highly motivated undergraduates to begin graduate

study while completing their undergraduate program requirements, will help recruit more potential undergraduate students from beyond the GTA.

<u>Pathways from College to University</u>: The diversity of our student body is also increased by the development of facilitated transfer programs (pathways) to enhance the movement of strong students from colleges to UTM. We have developed such a pathway with Sheridan and are developing one with Humber.

<u>Next Steps</u>: Throughout the plan period, we will pursue additional pathways of transition from college to university.

12. UTM is committed to contributing to the well-being of the many communities of which it is a part, including our local, national and international communities.

Outreach Activities: Our departments and programs engage in a wide range of outreach activities, sometimes as initiatives of programs or departments, sometimes as a result of the activities of individual faculty members (many of whom are listed by areas of expertise in the university's database for members of the media). Marketing and Communications professionals in our Office of Advancement regularly provide news to the UTM community about a sampling of these media interviews (in addition to assisting with the logistics of high profile news stories about our faculty members' research). Our faculty members make very significant contributions to the well-bein of our local, national and international communities through their research activities. Our students' contributions to the well-being of our local communities are highlighted in section 9, above, and include contributions through their internships and service learning courses in a variety of academic disciplines. Many of these course-based activities involve public and government institutions, such as our local hospitals, Credit Valley Conservation and Ontario's Centre of Forensic Sciences. In addition, UTM is represented on various local organizations that focus on business development and commercialization to facilitate experiential placement opportunities for our students. Our professional graduate programs involve student placements that support business and commercialization initiatives that have significant community impact.

Some of our departments and programs outreach activities are listed below.

• The Department of Mathematical and Computational Sciences is particularly active in outreach activities aimed at primary and secondary students including its Math circles (a weekly event held over four months for academically strong students in grades 10–12), Gr8 Designs (to interest grade eight girls in Computer Science through small group activities), the Math Kangaroo competition (a Canadian school competition involving students from grade 2–12) and Grade 9 Computer Science Education Week (during which students learn about connections between mathematics and computer science).

- Our Department of Language Studies organizes annual language contests in collaboration with local school boards, the Ontario Associations of Teachers of Italian and German, local businesses, members of the community, and the Italian/German Cultural Institutes of Toronto. Its annual production of an Italian play is a popular and effective form of community outreach. It holds *Language Days/Weeks (i.e. Hindi Day, Chinese Day, Arab Culture Day, Italian Week) to* celebrate the languages and cultures of our local communities. It promotes relations with professional associations and high school teachers through publications such as *Mosaic: The Journal for Language Teachers* and regularly organizes colloquia and lectures in collaboration with foreig Cultural Institutes, community cultural associations, and the Alliance Française in Mississauga.
- Our Department of Biology engages in science literacy through the Let's Talk Science program and will be involved in hosting Ontario Biology Day in 2014. Its internship students are often placed in local hospitals.
- Our Institute of Communication, Culture and Information Technology has partnered with the City of Mississauga to produce a web-based interactive cultural map of the city.
- Our Forensics program runs summer camps in forensics and offers its Crime Scene House as a testing site for Toronto Police Service Scene of Crime Officer Training program.
- Our Department of English and Drama has a very visible profile in the community due to its theatrical performances (regularly reviewed in the Mississauga News and Ontario Arts Review).
- The Blackwood Gallery connects our wider community to our Department of Visual Studies by providing exhibitions of professional and student artists, public lectures and conferences, tours, publications, and a summer arts camp. As with our theatre productions, Blackwood exhibits and activities receive regular media coverage.
- Our natural science programs regularly participate in community outreach activities such as Science Rendezvous (a non-profit organization that partners with Canada's top research institutions to provide exposure to science research).
- Our Department of Geography is involved in a large number of community outreach activities, with many opportunities to inform local level polic through their research. These include participation in the Healthy City Stewardship, collaborative projects with the Dixie-Bloor Neighbourhood Centre, the United Way of Peel Region and the Peel Newcomer Centre, Metrolinx, Green Communities Canada, the Couchiching Conservancy, Toronto Zoo, Mississauga Sustainable Urban Agriculture project, White-Tailed Deer Ecology Project, Riverwood Conservancy, Mississauga Environmental Advisory Committee, and Peel Environmental Youth Alliance.
- Faculty and graduate students across a wide-range of departments participate in the western GTA Café Scientifique.

<u>Next Steps</u>: We will hire a community outreach coordinator to assist with the logistics and raise the profile of existing departmental and program outreach activities, and to support the ambitions of many of our academic units to expand their activities in this area, particularly in the business sector and with respect to local government institutions.