UNIVERSITY OF TORONTO MISSISSAUGA

OFFICE OF THE CAMPUS COUNCIL

OFFICE OF THE CAMPUS COUNCIL

CAMPUS AFFAIRS COMMITTEE

Monday, November 11, 2013 at 4:10 p.m.

Council Chamber, Room 3130, William G. Davis Building

AGENDA

1. **Chair's Remarks**

2. **Presentation on the Student Services Plaza: Mr. Paul Donoghue, Chief Administrative Officer and Mr. Mark Overton, Dean of Student Affairs** (for information)

3. **Establishment of an Extra-Departmental Unit C (EDU: C): Professional Accounting Centre (PAC), Institute for Management and Innovation (IMI)***

   Be it Recommended to the University of Toronto Mississauga Campus Council,

   THAT the proposed establishment of the Professional Accounting Centre (PAC) as an Extra Departmental Unit C (EDU:C) to be based within the Institute for Management and Innovation (IMI), be approved, effective January 1, 2014.

4. **Capital Project: Project Planning Report for the UTM Phase 4 of the Renovation of Biology Undergraduate Teaching Laboratories**

   Be it Recommended to the University of Toronto Mississauga Campus Council,

   1. THAT the Project Planning Committee Report for the Renovation of Biology Undergraduate Teaching laboratories at the University of Toronto Mississauga, dated November 1, 2013, be approved in principle; and

   2. THAT the total project scope of approximately 598 gross square meters (approximately 598 nasm), be approved in principle, to be fully funded from Capital Reserves derived from the UTM Operating Budget.

+ Confidential documentation included for members only

* Documentation included

** Documentation for consent item included. This item will be given individual consideration by the Campus Affairs Committee only if a members so requests. Members with questions or who would like a consent item to be discussed by the Campus Affairs Committee are invited to notify the Committee Secretary Mariam Ali at least 24 hours in advance of the meeting by telephone at 905-569-4358 or by email at mariam.ali@utoronto.ca

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3359 Mississauga Road Mississauga, ON L5L 1C6 Canada
E-mail: council.utm@utoronto.ca • Web: www.utm.utoronto.ca/governance

5. Capital Project: Project Planning Report – Biology Greenhouse

Be it Recommended to the University of Toronto Mississauga Campus Council,

1. THAT the Project Planning Committee Report for the University of Toronto Mississauga Biology Greenhouse, dated October 31, 2013, be approved in principle; and

2. THAT the project scope to accommodate construction of the Biology Greenhouse at the University of Toronto Mississauga comprising 134 nasm of a green house space and 143 nasm of header house space, be funded from Capital Reserves derived from the UTM Operating Budget.

6. Assessor's Report

CONSENT AGENDA**

7. Report of the Previous meeting: Report 1 – September 9, 2013*

8. Business Arising from the Report of the Previous Meeting

9. Date of the Next Meeting – January 8, 2014, 4:10 to 6:00 p.m.

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10. Other Business

IN CAMERA SESSION

11. Capital Project: Project Planning Report for the UTM Phase 4 of the Renovation of Biology Undergraduate Teaching Laboratories – Financial and Planning Implications and Funding Sources +(for recommendation)

12. Capital Project: Project Planning Report for the University of Toronto Mississauga Biology Greenhouse – Financial and Planning Implications and Funding Sources+ (for recommendation)

+ Confidential documentation included for members only

* Documentation included

** Documentation for consent item included. This item will be given individual consideration by the Campus Affairs Committee only if a members so requests. Members with questions or who would like a consent item to be discussed by the Campus Affairs Committee are invited to notify the Committee Secretary Mariam Ali at least 24 hours in advance of the meeting by telephone at 905-569-4358 or by email at mariam.ali@utoronto.ca

UNIVERSITY OF TORONTO MISSISSAUGA

OFFICE OF THE CAMPUS COUNCIL

3

FOR RECOMMENDATION **PUBLIC** **OPEN SESSION**

TO: Campus Affairs Committee

SPONSOR: Amy Mullin, Vice-Principal Academic and Dean
CONTACT INFO: 905-828-3719, amy.mullin@utoronto.ca

PRESENTER: See Sponsor.
CONTACT INFO:

DATE: November 4, 2013 for November 11, 2013

AGENDA ITEM: 3

ITEM IDENTIFICATION:

Establishment of an Extra Departmental Unit C (EDU: C) - Professional Accounting Centre (PAC) Institute for Management and Innovation (IMI)

JURISDICTIONAL INFORMATION:

Section 5.8.1 of the Campus Affairs Committee (CAC) terms of reference outlines the responsibility of the CAC in the establishment, disestablishment or restructuring of Academic Units. Proposals for Extra-Departmental Units are considered and recommended for approval, pursuant to the *Guidelines for Administrative Functions and Protocols for Extra-Departmental Units (EDU).*

GOVERNANCE PATH:

1. **Campus Affairs Committee [For Recommendation] (November 11, 2013)**
2. Campus Council [For Approval] (December 9, 2013)

PREVIOUS ACTION TAKEN:

The proposal for the Institute for Management and Innovation, an EDU:B at the University of Toronto Mississauga was considered by Erindale College Council on December 6, 2012 and received final governance approval by the Governing Council on February 28, 2013 with an effective date of July 1, 2013.

HIGHLIGHTS:

This is a proposal to establish an Extra Departmental Unit (EDU): C – Professional Accounting Centre (PAC) to be housed within the Institute for Management and Innovation (IMI), an EDU: B, effective January 1, 2014. An EDU: C is a multidisciplinary and/or multi-departmental

research and/or academic unit with a defined research domain in a particular area of academic work. It exists to foster research and scholarly interest in the area, but does not register students.

Faculty from the Departments of Management, Sociology and Economics at UTM, as well as faculty from the Rotman School of Management and the Department of Management at UTSC, along with the Director of IMI, all IMI Program Directors, individual faculty members identified as having an interest in study of the professions, and professional accountants in the community were consulted, and all are in full support of this proposed Professional Accounting Centre.

The Centre will build on the strengths in the area of accounting at UTM and will engage faculty from all three campuses and beyond. Its goal is to stimulate research on the issues facing professional accounting in the newly emerging world of merging functionality and globalization of standards and practice and to provide co-curricular opportunities for students of accounting to benefit from innovative and rigorous research and discussion of professional accounting.

The Professional Accounting Centre responds at an opportune time to a significant need. Professional accounting is in a state of considerable change, given the current merger discussions of the three Canadian professional accounting designations, Chartered Accountant (CAs), Certified Management Accountants (CMAs), and Certified General Accountants (CGAs), and the globalization of accounting standards and accounting practice. These bodies will form the Chartered Professional Accountant (CPA). The merger raises many questions related to the appropriate common standard of judgment, ethics, practice, education, examination, and protection of the public. These questions and debates can be informed by the research that PAC can provide, with beneficial spill over for UTM's accounting programs and students.

As outlined in UTM's Academic Plan, IMI represents a significantly new way of offering business-related education on campus and PAC will be a major part of this goal. PAC is in keeping with the overall mission of IMI to "advance our knowledge of the management of scientific, technological and professional enterprises, and [to] contribute to the development of new knowledge and content within professions through experiential opportunities."[1]

PAC will differ from the other accounting centre at U of T, the CA/Rotman Centre for Innovation in Accounting Education, in that PAC will focus directly on professional accounting issues and not primarily on accounting education issues, which is the focus of the CA/Rotman Centre.

Faculty participants will be drawn primarily from the UTM Departments of Management, Sociology and Economics, as well as from the Rotman School of Management, and the Department of Management at the University of Toronto Scarborough (UTSC). Accounting faculty as well as faculty from finance, economics, organizational behaviour, the sociology of work, and strategy, all do research of relevance to the Centre's activities. There will also be external community participants from the professional accounting community, securities markets and securities regulators, and the legal community that serves all of these.

[1] IMI Proposal for an EDU:B of September 9, 2010, p.1.

The PAC Director will report to the Vice-Principal Academic and Dean, UTM on academic and budgetary matters. The Director will hold the budget for PAC research activities and will work with the IMI Director, MMPA Program Director, DIFA Program Director and IMI Director of Operations with respect to utilization of IMI and IMI programs' staff to support PAC objectives. The IMI Director will be ultimately responsible for the allocation of IMI staff time in support of PAC objectives.

FINANCIAL IMPLICATIONS:

Decanal funds will be provided for research and promotional activities on an OTO basis with continuing funds for research to be drawn from external funding. Funding for events is designed to raise the profile of the Centre and to further its objectives.

The Centre's ongoing operating budget will consist of the Director's administrative stipend of $5,000; research activities are given an OTO allocation of $20,000 and there is an estimated $10,000 allocated on an OTO basis for PAC promotional events

There are no additional Library resources implications, other than those that were already assigned to IMI.

The PAC Director and staff support will occupy space and facilities within those already allocated to the MMPA and DIFA Programs or IMI. There are no additional space/facilities implications.

RECOMMENDATION:

Be it Recommended to Campus Council,

THAT the proposed establishment of the Professional Accounting Centre (PAC) as an Extra Departmental Unit C (EDU:C) to be based within the Institute for Management and Innovation (IMI), be approved, effective January 1, 2014.

DOCUMENTATION PROVIDED:

Professional Accounting Centre IMI EDU-C Proposal, dated October 23, 2013

Guidelines for Administrative Functions and Protocols of Extra-Departmental Units (EDU) available at:
http://www.vpacademic.utoronto.ca/Assets/VP+Academic+Digital+Assets/Vice-Provost+Academic/VP+Academic+Digital+Assets/Extra+Departmental+Units/Guidelines+for+Administrative+Functions+and+Protocol.pdf

EDU: C Proposal: Professional Accounting Centre (PAC)

(To be housed within the Institute for Management and Innovation (IMI))

October 22, 2013

1. Overview of Proposed Centre to be housed within IMI at UTM

The University of Toronto Mississauga (UTM) is proposing a new EDU: C called the Professional Accounting Centre (PAC). The Centre builds on the strengths in the area of accounting at UTM and will be physically housed at UTM, but will engage faculty from all three campuses and beyond. As such, its goal is to stimulate research on the issues facing professional accounting in the newly emerging world of merging functionality and globalization of standards and practice and to provide co-curricular opportunities for students of accounting to benefit from innovative and rigorous research and discussion of professional accounting. As such, PAC's mission is in keeping with the overall mission of the Institute for Management and Innovation (IMI), the entity offering the graduate programs in accounting on the UTM campus, which is to "advance our knowledge of the management of scientific, technological and professional enterprises, and [to] contribute to the development of new knowledge and content within professions through experiential opportunities."[1] Effective January 1, 2014, the lead Division will be UTM and the Director will be appointed by and report to the Vice-Principal Academic and Dean of UTM. The Director of PAC will also work closely with the IMI Director with respect to PAC's contribution to IMI's strategic mission and the Master of Management & Professional Accounting (MMPA) Program Director, Diploma in Investigative & Forensic Accounting (DIFA) Program Director and IMI Director of Operations as staff support for PAC activities will be drawn from IMI.

PAC is particularly relevant to the University of Toronto and specifically to the University of Toronto Mississauga. UTM provides an excellent education for budding professional accountants, and has done so for many decades. In fact, although it is not widely known, UTM has been one of the largest sources of entrants to the professional accounting field in the province of Ontario. UTM educates a large number of accounting students. During a normal year, approximately 1,280 students are enrolled in full course equivalents (FCEs) in undergraduate accounting courses at UTM, with approximately 480 students registered in the Bachelor of Commerce (Accounting Specialist) program.[2] The UTM Commerce programs are

[1] IMI Proposal for an EDU: B of September 9, 2010, p. 1.

[2] E.g., during 2011/12, 1,266 FCEs were enrolled in undergraduate UTM accounting courses, and 488 students in the B.Com. (Accounting) program; during 2012/13, 1,295.5 FCEs were enrolled in undergraduate UTM accounting courses, and 471 students in the B.Com. (Accounting) Program. Students are not able to register in the B.Com.

offered jointly by the Department of Economics and Department of Management at UTM and are supported, with respect to enriching the student experience, by IMI. At the graduate level, approximately 230 students are enrolled in the Master of Management & Professional Accounting (MMPA) program, and 35 in the graduate Diploma in Investigative & Forensic Accounting (DIFA) program. Both of the latter are programs are offered by IMI. These students are educated by over 85 full- and part-time faculty from Management, Economics and other disciplines, as well as from the professional accounting and business community. The MMPA Program is the largest professional graduate program at UTM, and the B.Com. (Accounting Specialist) is one of the most popular of UTM's undergraduate offerings.

In view of the significant programs which UTM has developed to educate both aspiring and graduate professional accountants, and the expertise in the field across our three campuses, we propose a Professional Accounting Centre (PAC), whose main purpose would be to stimulate research in professional accounting across the University of Toronto and beyond. The benefits of such research would be advantageous across all University of Toronto programs. The Centre would engage interested researchers and professional accountants through themed conferences, a working paper series, as well as through fundraising and sponsorship of research projects. These activities would create new opportunities for undergraduate and graduate accounting students to interact with each other, with renowned researchers at U of T and beyond, and with members of the professional accounting community, thus enriching the student experience. In addition, PAC would draw favourable attention to the University of Toronto's accounting programs and faculty, facilitate broader recognition of a UTM accounting brand, enhance the recruitment of excellent students, and the raising of funds for support. We expect that PAC would ultimately be named through future endowment, which would further raise the profile of UTM interests in professional accounting.

The creation of PAC is particularly timely because professional accounting is in a state of considerable change, given the current merger discussions of the three Canadian professional accounting designations and the globalization of accounting standards and accounting practice. These and other issues discussed on page 4 would benefit by orderly examination by researchers and informed professional accountants.

The creation of PAC would also positively assist with the required periodic accreditation reviews that our accounting programs undergo in that external reviewers assess, among other factors, the investments that institutions make in support of the field of accounting, and the esteem in which the university and its programs are held by the external accounting community.

(Accounting) program until their second year of studies, but it would be safe to infer that an additional 160 students or so in their first year of studies are also aspiring accountants.

Maintaining the AACSB accreditation[3] for the MMPA Program is important to the continued attraction of faculty, as well as domestic and international students who wish to complete the U.S. CPA designation. Moreover, Canadian professional accounting bodies periodically review our programs to assess where our graduates fit into their professional education program. During 2013-2014, for example, our programs will be reviewed by the AACSB to assess what exemptions our students will be allowed for both the Assurance and Management Accounting streams of the new Chartered Professional Accountant (CPA) designation.

PAC will be housed within the Institute for Management and Innovation (IMI), as an EDU: C, with the PAC Director reporting to the Vice-Principal Academic and Dean of UTM. The Director will convene and chair an Advisory Committee made up of the Director of IMI together with senior professional accountants and academics. Faculty holding primary appointments in existing departments, such as the Department of Management and that of Economics, could be associated with PAC through non-budgetary cross-appointment to IMI.

2. Description of Purpose

The proposed Centre responds to the need for research on the issues facing professional accounting in a world where professional accounting designations are being merged and the globalization of standards and practice is increasing, and for dissemination of that research to aspiring professional accountants, scholars in the field, and professional accountants engaged in practice. Professional accounting relates primarily to the mandate, role, ethics, standards, behaviour, and techniques involved in preparing and providing high quality accounting data for users and providing assurance of its credibility.[4] The findings of research on such issues would benefit the scholarly community as well as professional accountants worldwide; it would, in addition, inform instructors and enhance the curriculum of graduate and undergraduate programs for professional accountants offered by Divisions throughout U of T. For example, research on professional values in different cultures will prepare professional accountants to practice in a global environment and will inform instructors in auditing, managerial accounting and financial accounting as to how to include relevant material in their classes. Studies on the involvement of professional accountants in the measurement and disclosure of environmental impacts will, in addition, contribute to performance measurement and public disclosure, and these findings will be incorporated into courses in UTM programs offered or supported by IMI.

[3] The AACSB accreditation, given by the Association to Advance Collegiate Schools of Business, is the world-wide accreditation for business schools and for accounting programs (www.aacsb.edu).

[4] Accounting, broadly defined, includes, in addition to professional accounting, such topics as the improvement of accounting research techniques and the application of those to problems such as: the impact of disclosures on securities markets and the regulation of those markets, the development of new share valuation models, the development of refined compensation practices, and other governance improvement topics.

Moreover, such research will draw positive attention to UTM's professional accounting activities, thus enhancing the awareness and reputation of UTM's three accounting programs, generating the best students for all, and attracting interested faculty.

Research

PAC's primary research focus will be professional accounting, intellectually located within the broader field covering the study of the professions and professional service firms.[5] Professional accounting has entered a period characterized by globalization, heightened investor expectations, and increasing litigation. As a result, there are pressures for the development of standard globalized practices that are both practical and defensible as well as behaviour that corresponds to high global expectations and regulations. In addition, there are developments needed within professional accounting in specific countries, including Canada, such as the harmonization of new and former accounting standards, practices, and practice values. It is therefore desirable for such developments to be informed by well-considered research on professional accounting matters, such as those that PAC can and will provide. Important themes and topics in professional accounting research include, for example, the following:

- Professional values: cultural differences and their reconciliation, developing a global set, working effectively with persons from different cultures.
- Professional decision making: exemplary decision approaches, renewing criteria for materiality
- Professional responsibilities: developments in professional ethics, emerging dimensions of fiduciary responsibility
- Professional tools: improving financial and/or environmental disclosure
- Understanding professional or unprofessional behaviour: effective motivation, control, and discipline, building an effective professional firm culture
- Professionalism in areas of professional practice: management consulting, taxation, investigative and forensic accounting
- Professionalism in new areas of involvement: environmental accounting and disclosure, risk assessment and management

It is worth mentioning that the three largest professional accounting designations in Canada are: Chartered Accountants (CAs), Certified Management Accountants (CMAs), and Certified General Accountants (CGAs). These bodies are in the process of merging into a new designation that will be called the Chartered Professional Accountant (CPA)[6]. The merger raises many questions related to appropriate common standards of judgement, ethics, practice,

[5] See, for example, the recently founded *Journal of Professions and Organization*.
[6] See details at: http://cpacanada.ca/

education, examination, and protection of the public. Similarly, in view of the fact that there is enormous variation in the historical roles of accounting, as well as the legal and regulatory systems, in different countries, the move toward globalized accounting standards is apt to give rise to many debates. These questions and debates can be informed by the research that PAC can provide, with beneficial spill over for our accounting programs and students.

PAC will create a space where interested researchers, interested professional accountants, and regulators from around the world can share their thoughts on the problems facing professional accounting through activities, including themed conferences and related publications, working paper series, and commissioned papers, in order to advance the practice of professional accounting and to contribute to ensuring that education of aspiring professional accountants at the University of Toronto generally and UTM more specifically is of the highest calibre and includes opportunities for valuable co-curricular experiences. These activities will generate ideas that will optimize delivery of professional accounting education. Not only academic and professional accountants will be interested in the debates and outcomes, but so will finance professors, economists, and experts in governance and regulation.

Student Experience

PAC will not mount its own courses, but, through its association with IMI, will offer support for University of Toronto accounting faculty and programs and, in particular, UTM's MMPA, DIFA and B.Com. (Accounting Specialist) programs. The MMPA and DIFA are programs offered through IMI at UTM, and the B.Com. Program is a joint program of the Departments of Management and Economics. The ideas and materials generated by PAC's research activities will contribute significantly to the leading edge nature of UTM's and the University's accounting programs. Students in University of Toronto programs in the area of professional accounting will both contribute towards and benefit from PAC's research activities. Access to cutting edge research will encourage students to engage in further study as PhD candidates, and/or will enrich their understanding of professional issues making them more effective as future leaders of the accounting profession. Undergraduates will associate in these research endeavours with graduate students, thus enhancing their network and their appreciation of the value of the programs and possibilities at UTM. Both graduate and undergraduate students will have valuable co-curricular experiences that include exposure to the thinking of academics and professional accountants.

Distinctiveness

PAC will differ from the other accounting centre at U of T, the CA/Rotman Centre for Innovation in Accounting Education, because PAC will focus directly on professional accounting issues such as those described on page 4, and not primarily on accounting education issues which is the

focus of the CA/Rotman Centre. It is expected, however, that as a result of this research, PAC will also produce innovations in accounting education.

It will also be differentiated from operations examining professional service firms more generally, for instance the Novak Druce Centre for Professional Service firms at Oxford's Saïd School, in that its focus will be exclusively on professional accounting.

An Institute for Professional Accounting at the Booth School of Business at the University of Chicago has recently been renamed the Accounting Research Centre[7], and its agenda is more focussed on academic rather than professional accounting matters. It houses a PhD program, the *Journal of Accounting Research*, as well as workshops, conferences and other events.

Other centres exist, but none focus specifically on the same professional accounting research issues as intended for PAC. The current list of centres in Ontario, most of which have been created through funding from professional accounting bodies[8], include:

- Brock – CA/Brock Institute for International Issues in Accounting
- McMaster – CA/ De Groote Centre for the Promotion of Accounting Education and Research
- Queen's – CA-Queen's Centre for Governance
- Rotman –CA/Rotman Centre for Innovation in Accounting Education[9]
- Waterloo – CA/School of Accounting and Finance Learning Centre
- Wilfrid Laurier – CA/ Laurier Centre for the Advancement of Accounting Research and Education
- York University (Schulich) – CA-Schulich Alliance for Accounting Research and Professional Competencies.

3. Participating Faculty and Units

Faculty participants will be drawn primarily from the UTM Departments of Management, Sociology, and Economics, as well as from the Rotman School of Management, and the Department of Management at the University of Toronto Scarborough (UTSC). Accounting faculty as well as faculty from finance, economics, organizational behaviour, the sociology of work, and strategy do research of relevance to the Centre's activities. External participants will spring from the professional accounting community, securities markets and securities regulators, and the legal community that serves all of these.

[7] See http://research.chicagobooth.edu/arc/

[8] For example, the ICAO has been funding the CA Centres listed at the rate of $1,000 per first-time writer of the CA examinations from the respective university, to a maximum of $100,000 per annum.

[9] UTM students have been counted toward the total funding of the CA/Rotman Centre for Innovation in Accounting Education since the Centre has been structured to represent all three U of T Campuses.

Individuals who have expressed a willingness to participate in PAC activities are listed in Appendix A.

4. University and Faculty Strategic Goals

The proposed Centre responds directly to the University's priorities for future development as expressed in the *Towards 2030* plan.[10] Not only does PAC seek to encourage "the best and the brightest students" to choose U of T programs, but through its activities it seeks to enhance the reputation of U of T faculty with alumni and the accounting profession.

In addition, PAC will provide a very useful, nameable accounting presence within IMI. UTM has made investments in fine professional accounting programs and a growing group of accounting scholars and professionals, but these efforts are not as competitively visible as those at neighboring universities. Although the MMPA Program is well-known and well-respected, the DIFA Program and UTM's B.Com.(Accounting Specialist) do not enjoy recognition as part of the same set, nor is the significance of all UTM contributions to professional accounting fully recognized by the professional accounting community. The creation of PAC will remedy this lack of visibility and generate the outstanding students and donations that UTM's efforts deserve. The PAC will benefit not only the MMPA and DIFA, which are IMI Programs, but also the B. Com., which is shared by the Departments of Management and Economics and supported by IMI.

A highly visible PAC is much more likely to attract donations to support the enhancement of accounting programs and research initiatives. Donors to accounting programs, scholars, and research foundations have typically been much more willing to donate time and funds when their donation can be made to an entity that is exclusively devoted to the advancement of the field of professional accounting.

5. Description of the Director's Responsibilities and Administrative Structure

PAC will be overseen by a Director, appointed by the Vice-Principal Academic and Dean of UTM (in consultation with the Director of IMI), who would:

1. Report to the Vice-Principal Academic and Dean, UTM.
2. Stimulate research on professional accounting matters.
3. Provide enhanced opportunities for graduate and undergraduate students to interact with academics and practitioners in the field of professional accounting.
4. Stimulate fund raising for accounting research, faculty, students, and programs.

[10] http://www.towards2030.utoronto.ca/files/2030_REDUXv7.pdf

5. Work with the IMI Director to raise the profile of UTM accounting programs with the view to attracting the best students possible.
6. Convene and Chair a PAC Advisory Committee consisting of the Director of IMI in an ex officio capacity together with senior professional accountants and academics.
7. Recommend approval of applications to the PAC Advisory Committee from worthy academics and senior practitioners who wish to be appointed as members of the PAC.
8. Liaise between faculty, the IMI Director and department chairs on matters related to the accounting programs and PAC's interests.

6. Budget

The PAC Director will report to the Vice-Principal and Dean of UTM on academic and budgetary matters. The Director of the Centre will hold the budget for PAC research activities. The PAC Director will work with the IMI Director, MMPA Program Director, DIFA Program Director and IMI Director of Operations with respect to utilization of IMI and IMI programs' staff to support PAC objectives. The IMI Director will be ultimately responsible for the allocation of IMI staff time in support of PAC objectives.

- Research activities – start-up funds only, continuing funds from external funding
- Funding for events designed to raise the profile of the Centre and further its objectives.

Operating Budget

Director's administrative stipend	$5,000	
Research activities	20,000	(OTO Allocation from decanal funds)
PAC promotional events	10,000	(OTO Allocation from decanal funds)
	$35,000	

7. Space and Facility Needs

The PAC Director and staff support will occupy space and facilities within those already allocated to the MMPA and DIFA Programs or IMI. No additional facilities will be required.

8. Library

Library resources will be those already assigned to IMI.

9. Effective Date

PAC will be effective Jan. 1, 2014.

10. Conclusion

The proposal for an EDU: C to be known as the Professional Accounting Centre responds at an opportune time to a significant need. The establishment of PAC will draw favourable attention of excellent prospective students, leading researchers, and the interest and support of the newly merged professional accounting community. Our faculty, programs, and our students will benefit, as will professional accounting.

L.J. Brooks, October 22, 2013

APPENDIX A: Individuals Who Have Expressed Willingness To Participate In PAC Activities (As at November 1, 2013)

Name	Rank & Admin. Appt.	Primary Appointment	Areas of Research and/or Professional Specialization/Interest
Varouj Aivazian	Professor of Economics & Finance; Chair of UTM Dept. of Economics	Depts. of Economics & Management UTM; Rotman School of Management	Corporate Finance, Corporate Governance, Bankruptcy, Valuation, Microeconomic Theory, Law & Economics.
Joel Amernic	Professor of Accounting	Rotman School of Management	To follow
Leonard Brooks	Professor of Business Ethics & Accounting; Director, MMPA & DIFA	UTM Management	Business and professional ethics, ethical decision making, professional behaviour, management control; corporate governance & ethical culture.
Jeffrey Callen	Joseph L. Rotman Chair in Accounting	Rotman School of Management	Corporate valuation, accounting information and capital markets, efficiency measurement and the non-profit firm.
Feng Chen	Assistant Professor of Accounting	UTM Management	Financial Reporting Quality Corporate Disclosure Policy Corporate Governance International Accounting Financial Statement Analysis
Gus DeFranco	Associate Professor of Accounting	Rotman School of Management	To follow
Ronit Dinovitzer	Associate Professor of Sociology	UTM Sociology	Sociology of the Professions Legal Profession
Joan Kitunen	Senior Lecturer of Accounting; Director, CA/Rotman Centre for Innovation in Accounting Education	Rotman School of Management/ UTM Management	Taxation and Decision Making Education in the Accounting Profession Education of Taxation specialists
Kevin Li	Assistant Professor	UTM	Earnings forecasts, cost of capital,

Name	Rank & Admin. Appt.	Primary Appointment	Areas of Research and/or Professional Specialization/Interest
	of Accounting	Management	valuation, earnings management, capital structure, regulation and disclosure
Yue Li	Associate Professor of Accounting	UTM Management	Environmental accounting, corporate social responsibility, corporate governance, accounting disclosure and firm valuation
Hai Lu	Associate Professor of Accounting	Rotman School of Management	Regulations, insider trading, accounting information and securities valuation, corporate governance
Partha Mohanram	Professor of Accounting	Rotman School of Management	Financial Statement Analysis Valuation Implied Cost of Capital Earnings Management and CEO Compensation
Manfred Schneider	Senior Lecturer of Accounting; Assoc. Director, DIFA	UTM Management	Canadian Auditing Standards Integration in Accounting Education Education in the Professions Law, accounting
Wally Smieliauskas	Professor of Accounting; Area Coordinator of Accounting, Rotman School of Management	Rotman School of Management	Audit risk Fraudulent financial reporting Financial reporting quality Audit evidence Auditing technique innovations
Gordon Richardson	Professor of Accounting	Rotman School of Management	To follow
Wendy Rotenberg	Professor of Accounting and Finance	Rotman School of Management	Corporate finance, international financial management and accounting
Dushyant Vyas	Assistant Professor of Accounting	UTM Management	Accounting in Financial Institutions, Financial Reporting Quality, Corporate Governance, International Issues in Accounting and Finance, Financial Intermediaries

Name	Rank & Admin. Appt.	Primary Appointment	Areas of Research and/or Professional Specialization/Interest
Aida Wahid	Assistant Professor of Accounting	UTM Management	Corporate governance, financial reporting quality, international accounting issues
Irene Wiecek	Senior Lecturer of Accounting; Assoc. Director, MMPA; Director, CA/Rotman Centre for Innovation in Accounting Education	UTM Management	International Financial Reporting Standards Integration in Accounting Education Use of the Multiple Intelligences Framework in Accounting Education Education in the Professions
Baohua Xin	Assistant Professor of Accounting	Rotman School of Management	Accounting information and capital markets; information economics and decision making.
Minlei Ye	Assistant Professor of Accounting	UTM Management	The economics of auditing, with an emphasis on analytical and archival research in auditing standards setting, pricing, auditor industry expertise, and audit quality.
Kevin Yousie	Assistant Professor of Strategic Management and International Business	UTM Management	Facilitation of Strategy, Organizational Alignment and Leadership Development with a focus on the Financial Services Sector.
Ping Zhang	Associate Professor of Accounting	Rotman School of Management	Audit quality, audit pricing, auditor liability, auditing standards setting, and auditor industry expertise.
David Zweig	Associate Professor of Organizational Behaviour and Human Resource Development	University of Toronto Scarborough	To follow
Additional Faculty at Rotman and UTSC have expressed interest in participating in the Centre's activities. Further names will be added.			

UNIVERSITY OF TORONTO MISSISSAUGA

OFFICE OF THE CAMPUS COUNCIL

4

FOR RECOMMENDATION **PUBLIC** **OPEN SESSION**

TO: Campus Affairs Committee

SPONSOR: Paul Donoghue, Chief Administrative Officer
CONTACT INFO: 905-828-3707, paul.donoghue@utoronto.ca

PRESENTER: See Sponsor
CONTACT INFO:

DATE: November 4, 2013 for November 11, 2013

AGENDA ITEM: 4

ITEM IDENTIFICATION:

Capital Project: Project Planning Report for the University of Toronto Mississauga Phase 4 of the Renovation of Biology Undergraduate Teaching Laboratories

JURISDICTIONAL INFORMATION:

Section 5.6.2 of the Campus Affairs Committee Terms of Reference states that the Committee "considers reports of project planning committees and recommends to the UTM Campus Council approval in principle of projects (i.e. site, space plan, overall cost and sources of funds) with a capital cost as specified in the *Policy on Capital Planning and Capital Projects*."

The *Policy on Capital Planning and Capital Projects* provide that capital projects with a project budget over $3 million and up to $10 million (Approval Level 2), at UTM will be considered by the UTM Campus Affairs Committee and the UTM Campus Council, before being recommended to the Academic Board for approval. Such proposals are then brought forward to the Executive Committee for confirmation.

The Business Board is responsible for approving the establishment of appropriations for individual projects and authorizing their execution within the approved costs.

GOVERNANCE PATH:

1. **Campus Affairs Committee [For Recommendation] (November 11, 2013)**
2. Campus Council [For Recommendation] (December 9, 2013)
3. Academic Board [For Approval] (January 30, 2014)
4. Executive Committee [For Confirmation] (February 27, 2014)

PREVIOUS ACTION TAKEN:

The Project Planning Report and the project scope of Phase 1 of the UTM Teaching Laboratories Renovation was approved in principle by the Governing Council on December 15, 2011.

HIGHLIGHTS:

The Department of Biology envisions its students receiving a first-class, contemporary education that reflects the modern field of biology. To achieve this vision, students need access to state-of-the-art laboratories equipped with technology and equipment that will enable the latest pedagogical approaches to biology education. An external review of the Department of Biology done in November 2010 and pointed out the need for significant attention to be paid to the upgrading of the teaching laboratories; issues related to both the quality and capacity of the existing laboratories.

In June 2011, the Ontario government announced capital funding estimated at $17.5 million for the Renovation of Undergraduate Teaching Laboratories at the University of Toronto Mississauga (UTM). This funding has enabled UTM to undertake a multi-year renewal program of its teaching laboratories. This proposed project will renovate the second level of the William G. Davis Building, Block D recently vacated by the Chemical and Physical Sciences Department, creating two large teaching labs, one preparation room and a technician's office that will accommodate all first year biology classes.

In recent years the Department of Biology has expanded significantly and is one of the largest disciplines on the UTM campus. In 2002/03 there were approximately 1600 Full-course Equivalents (FCE) students in Biology courses and there are now, 3800 FCE students. The department likewise offers programs that are in high demand. In 2012/13 there were over 307 students enrolled in Biology Specialist Programs and over 834 in Biology Major Programs. (*source: Department of Biology Self-Study 2013).* In the 2012/13 academic year, Biology offered 16 courses with practical sections that will serve over 2,792 students. The department is currently engaged in an academic and strategic planning process to support the growth in enrolment as well as the expansion of lab-based courses. Experiential learning is a top academic priority of the department. To do so, the department plans to reduce group sizes, increase the opportunity for hands-on experience and re-introduce laboratory experiments to courses. This re-design and investment in the related space will support this change in pedagogical techniques.

Phase 4 of the UTM Teaching Laboratory renovation will affect only the 1st floor Biology teaching laboratories and their associated preparation rooms, totalling 557 net assignable square meters (nasm). During this project, the teaching laboratories will be relocated from the 1st to the 2nd floor of the William G. Davis Building. This move will allow Biology teaching laboratories to be located in a busy 2nd floor area thus vacating relatively quiet serviced space on the 1st floor for research.

<u>The Need for a New Facility:</u>

UTM's first science laboratories were built almost 40 years ago and are outdated and inefficient. The renovation is essential to maximize the utilization of the existing infrastructure and will support increased numbers of undergraduate, research-based master's and doctoral graduate programs, and provide the

updated infrastructure needed to support today's scientific teaching and research.

Space Program and Functional Plan:

The proposed space program allocation of 598 nasm including the laboratory technician's office (33 nasm) on the 2nd floor represents approximately the same area compared to the existing allocation 557 nasm of 1st floor teaching laboratories.

The proposed renovation will provide teaching efficiencies by creating two 48-seat laboratories. This allows flexibility in the scheduling of larger class sections as well as the option of splitting the sections into smaller groups (12 to 24 students). Larger classes are frequently perceived as one of the main barriers to quality learning, and there are many studies that point to the challenges of teaching large classes. Often overcrowded and noisy laboratories offer a poor learning environment. To reduce these feelings of over crowdedness, confusion, and frustration, a smaller stations total of 48 students were recommended as an appropriate number for first year students.

Phasing:

The proposed renovations of the undergraduate laboratories in the W.G. Davis Building started in 2012 and were planned to occur over four years (2012-2016) in order to take advantage of the summer semester construction window and to allow for coordination with other capital projects that are planned for the UTM campus.

- Phase 1 - Biology teaching laboratory renovation 4th floor (completed in August 2012)
- Phase 2 - Anthropology teaching laboratory renovation 2nd floor (completed in August 2012)
- Phase 3 - Chemistry teaching laboratory renovation 3rd floor (completed in August 2013)
- Phase 6 - Physics teaching laboratory renovation (currently under construction)
- **Phase 4 - Biology undergraduate teaching laboratory renovations 2 nd floor (this project planning report)**

Upcoming and concluding phases:

- Phase 5 - Teaching laboratory renovations2nd floor West side (Summer 2015)
- Phase 7 - Research laboratory renovations - secondary effects (Summer 2016)

Operating Costs:

Provision has been made in UTM's Operating Budget to cover annual operating costs which are expected to increase to $43,300. It is expected that the project will take approximately 18 months to complete, subject to receiving the necessary environmental and building approvals from local and provincial authorities.

Schedule:

• Governance approvals	November, 2013 to February 27, 2014
• Laboratory Bench/Fume Hood Tender	March 2014
• Permit Application	February 2014
• Advance/Preparatory work	April 2014
• General Tender	April 2014
• Construction	April-October 2014
• Occupancy	January 2015

FINANCIAL IMPLICATIONS:

The overall cost of the project, as well as the delineation of amounts derived from the various sources of funds, will be considered in the *in camera* session of the meeting (a separate cover sheet has been provided to members).

RECOMMENDATION:

Be It Recommended to the University of Toronto Mississauga Campus Council:

1. THAT the Project Planning Committee Report for the Renovation of Biology Undergraduate Teaching laboratories at the University of Toronto Mississauga, dated November 1, 2013, be approved in principle; and

2. THAT the total project scope of approximately 598 gross square meters (approximately 598 nasm), be approved in principle, to be fully funded from Capital Reserves derived from the UTM Operating Budget.

DOCUMENTATION PROVIDED:

Project Planning Report for the Renovation of Biology Undergraduate Teaching Laboratories at the University of Toronto Mississauga.

PROJECT PLANNING REPORT FOR THE RENOVATION OF BIOLOGY UNDERGRADUATE TEACHING LABORATORIES AT UTM

Phase 4 (2nd floor)

November 1, 2013

Facilities Management & Planning, University of Toronto Mississauga

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I. EXECUTIVE SUMMARY

In June, 2011, the Ontario government announced capital funding estimated at $17.5 million for the Renovation of Undergraduate Teaching Laboratories at the University of Toronto Mississauga (UTM). This funding was part of a larger capital funding package of $52.5 million that was to provide about 70% of the cost of both the teaching laboratories and Phase 1 of the North Building re-construction. That funding enabled UTM to undertake a multi-year renewal program of its teaching laboratories with the first construction beginning in 2012.

UTM's first science laboratories were built almost 40 years ago and are outdated and inefficient. The renovation is essential to maximize the utilization of the existing infrastructure, to support increased numbers of undergraduate, research-based master's and doctoral graduate programs, and provide the updated laboratory setting needed to support today's scientific teaching and research. An external review of the Department of Biology done in November 2010 and pointed out the need for significant attention to be paid to the upgrading of the teaching laboratories; issues related to both the quality and capacity of the existing laboratories.

The proposed renovations of the undergraduate laboratories in the W.G. Davis Building will take place over four years (2012-2016) in order to take advantage of the summer semester construction window and to allow for coordination with other capital projects that are planned for the UTM campus. The following phases are completed or anticipated.

- Phase 1 - Biology teaching laboratory renovation 4th floor (completed in August 2012)
- Phase 2 - Anthropology teaching laboratory renovation 2nd floor (completed in August 2012)
- Phase 3 - Chemistry teaching laboratory renovation 3rd floor (completed in August 2013)
- Phase 6 - Physics teaching laboratory renovation (currently under construction)
- Phase 4 - Biology undergraduate teaching laboratory renovations and relocation from the 1st to the 2nd floor
  (this project planning report)

Upcoming and concluding phases:

- Phase 5 - Teaching laboratory renovations 2nd floor West side (Summer 2015)
- Phase 7 - Research laboratory renovations - secondary effects (Summer 2016)

This proposed project will renovate the second level of the William G. Davis Building, Block D, recently vacated by the Chemical and Physical Sciences Department, creating two large teaching labs that will accommodate all first year biology classes, one preparation room and a technician's office.

The Biology department continues to refine its academic and strategic plans to support growth in enrolment as well as the expansion of lab-based courses. Experiential learning is a top academic priority and the department plans to reduce group sizes, increase the opportunity for hands-on experience and re-introduce laboratory experiments to courses. This re-design and investment in our space will support the expected change in pedagogical techniques.

This renovation project focuses on improving the functionality and quality of the existing Biology teaching laboratories and is the second step in addressing two of the challenges that face the discipline: laboratory specialization, and increasing course demands.

The proposed schedule is based on advanced planning to allow for major construction to commence April 2014 after classes finish. It is hoped that portions of the work, mainly non-disruptive elements, will be performed in advance of that date (possibly March 2014) with a project completion date of January 1, 2015.

The estimated Total Project Cost for this project will be funded from Capital Reserves derived from the UTM Operating Budget. While the government funds provide about 70% of the total cost of the consolidated projects, individual elements are actually paid from different sources depending upon the timing of the specific project and related cash requirements compared with the cashflow from the government (spread over the four years, 2012/13 to 2015/16). Marginal incremental increases in operating costs have been provided for within the UTM Operating Budget.

II. PROJECT BACKGROUND

a) Membership

Mr. P. Donoghue , Chief Administrative Officer, UTM
Mr. A. Webb, Planner, Campus and Facilities Planning
Mrs. L. Snowden, Assistant Dean, Office of the Dean
Prof. B. Stewart, VP Research, UTM
Prof. S. Stefanovic, Chair Department of Biology, UTM
Prof. P. Macdonald, Chair Department of Chemical Physical Sciences, UTM
Prof. K. Wilson, Chair Geography, UTM
Prof. J. Sidnell, Chair Anthropology, UTM
Mrs. C. Moon, Staff Department of Biology, UTM
Mr. P. Goldsmith, Director, Facilities Management & Planning, UTM
Mr. R. Peters, Facilities Management & Planning, UTM
Ms. S. Senese, Director Information and Instructional Technology Services, UTM (in place of J.Lim)
Ms. S. Elias, Assistant Director, Facilities Management & Planning, UTM
Mr. T. Braukmann, Graduate student, Department of Biology, UTM
Mr. A. Singh, Undergraduate student, Department of Biology, UTM

Sub-Committee Membership

Prof. B. Stewart, VP Research, UTM
Prof. S. Stefanovic, Chair Department of Biology, UTM
Mr. C. Richter, Department of Biology, UTM
Ms. F. Rawle, Department of Biology, UTM
Ms. C. Moon, Staff Department of Biology, UTM
Ms. C. Bouilly, Staff Department of Biology, UTM
Ms. L. Cheung, Staff Department of Biology, UTM
Ms. S. Elias, Assistant Director, Facilities Management & Planning, UTM
Ms. N. Dourbalova, Facilities Planner, Facilities Management & Planning, UTM
Mr. T. Braukmann, Graduate student, Department of Biology, UTM
Mr. A. Singh, Undergraduate student, Department of Biology, UTM

b) Background Information

The University of Toronto Mississauga's first science laboratories were built almost 40 years ago and are severely outdated. The laboratories have inefficient layouts and do not provide the flexibility that is required to accommodate the flow-through of larger numbers of students, or the requirements of current technology. Renovation to a substantial part of the William G. Davis Building Block D is needed to accommodate our teaching and research laboratories. This is essential to maximize the utilization of the existing infrastructure in order to support the growth in numbers of the undergraduate, research-based master's as well as the doctoral graduate programs.

In order to successfully provide for the required growth and support, certain planning factors, such as adjacencies or the re-stacking of elements, are necessary in order to reach the final goal.

The William G. Davis Building D-block accommodates several research laboratories. These will be moved to the lower level, a location away from the main pedestrian traffic, which will better suit the type of sophisticated and sensitive research that is undertaken. The upper levels of the D-block will be dedicated to teaching laboratories. The renovation process of the D-block started in the summer of 2011 with the renovation of the Chemistry Teaching Laboratories. . This renovation created two (2) large teaching labs for the first and second year chemistry courses, a renovation which contained a significant number of fume hoods. The renovation of the Biology Teaching Laboratory located on the 4th floor and the renovation of the Anthropology Teaching Laboratory located on the 2nd floor were both completed in the summer of 2012. The 3rd floor renovations of both Chemistry and Physics Teaching Laboratories were scheduled for the summer of 2013; Chemistry is complete and Physics will be done by the end of November.

c) Statement of Academic Plan

It is expected that in the next century, biologists will be the scientific leaders using discovery-based science to tackle some of the world's greatest challenges. To support progress in this area, exemplary education of the next generation of scientists in the contemporary field of biology is of vital importance. The University of Toronto Mississauga Department of Biology is therefore engaged in a broad range of scholarly activity across the discipline while engaging its students in learning through discovery.

In recent years the department has expanded significantly and is one of the largest disciplines on the UTM campus. In 2002/03 there were ~1600 FCE students in Biology courses and there are now 3800 FCE students. The department likewise offers programs that are in high demand. In 2012/13 there were over 307 students enrolled in Biology Specialist Programs and over 834 in Biology Major Programs. (*source: Department of Biology Self-Study 2013).* In the 2012/13 academic year, Biology offered 16 courses with practical sections that will serve over 2,792 students.

Like other sciences, education in biology requires students to acquire knowledge and learn methods to develop new knowledge. Science is a process that requires intellectual and technical skills that must be practiced. As such, growth in student numbers has placed strains on the academic programming of the department. Biology has always valued experiential learning, and an effective venue for such learning is a laboratory-based course. The department has re-organized its programs to preserve this method of teaching in spite of increased enrolment numbers. However, sacrifices have been made that include reducing the total number of hours students are in the laboratory (such as taking labs on a bi-weekly rather than weekly basis), increasing group sizes within courses, and cancelling some lab-based courses altogether.

The department continues to refine its academic and strategic plans. It is reasonable to expect that expansion and improvement of lab-based courses, and experiential learning in general, will continue to be a top academic priority of the department. Indeed, Biology plans to reduce group sizes, increase the opportunity for hands-on experience and re-introduce laboratories to courses for which the laboratory component had been removed. Investment in the physical structure will allow UTM Biology to improve its pedagogical techniques, as well as use its space most efficiently to deliver an effective educational experience to its students.

d) Space Requirements

Overview of Existing Space

UTM Biology has a total of nine teaching laboratories comprising of 1,502 nasm supported by 478 nasm of preparation rooms, greenhouse, environmental chambers and storage space. The total area of teaching laboratories (COU Category 2) is 1,980 nasm, spread across several floors of the William G. Davis Building. The first year laboratories are currently located on the 1st floor and the remaining teaching laboratories are located on the 4th floor (the latter renovated in 2012).

This project, (Phase 4) of the UTM Teaching Laboratory renovation will affect only the 1st floor Biology teaching laboratories and their associated preparation rooms, totaling 557 nasm. During this project, those teaching laboratories will be relocated from the 1st to the 2nd floor of the William G. Davis Building. This move will allow Biology teaching laboratories to be located in a busy 2nd floor area thus vacating relatively quiet serviced space on the 1st floor for future research laboratory development.

Occupant Profile

The occupants of the newly renovated teaching laboratories will be UTM Biology faculty, staff, teaching assistants and 1st year students. With Biology forming one of the three foundational scientific disciplines, along with Chemistry and Physics, the range of scientific activities covered by the discipline is broad and diverse. Such activities will range from investigating the function of single molecules and genes through to the study of whole organisms. In addition to generating foundational knowledge, Biology is closely linked to related disciplines in the health, environmental, and social sciences. Biologists are therefore at the forefront of addressing problems such as climate changes, loss of species biodiversity, food production, and human health. These issues touch on many disciplines and also have political, economic and cultural components.

A significant challenge that educators face is offering students a breadth of Biology-related experience; a challenge that is reflected in the demands placed upon teaching laboratories. The curriculum of most biology departments is planned along sub-disciplinary lines and this has a direct impact on the requirements of the physical laboratory space where much of the hands-on experiential learning occurs.

The first year Biology laboratories and support spaces have specific needs for hands on applications, teaching, preparation and storage space. Biologists have typical laboratory equipment needs such as different types of microscopes, microscope cameras, aquaria, dissection tools and microbiological equipment. It is important to have the equipment and services to grow and maintain a variety living organisms under different conditions. This will be achieved using specially constructed growth facilities adaptable to different growth requirement for both plants and invertebrate organisms. These services will allow technicians to grow and maintain plants and animals in the quantities necessary for the large first year classes. In addition, the first year labs in biology will require particular display cabinets for of a wide variety of invaluable and fragile biological specimens. The goal is to be able to create an environment that effectively brings biology into view within the new lab space and expose students to the wide breath of diversity of living organisms on the planet.

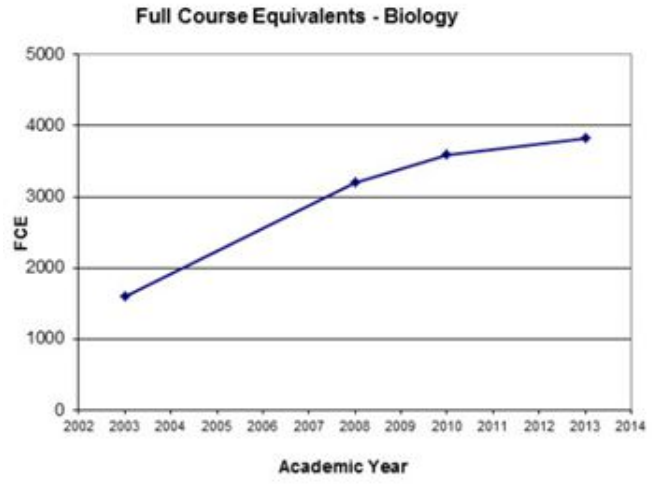
Storage space is required not only for live materials and samples but also for archival collections to ensure proper care and maintenance of those samples. Refrigerators, freezers and incubators are also

an essential component of storing and maintaining student material. Support spaces equipped with adequate bench preparation surfaces, storage, specialized microscopes and Biosafety equipment are required for preparation of lab materials for the first year Biology courses.

A further space-related challenge for the department is the increasing popularity of the program. The department is therefore faced with the challenge of finite laboratory space and the specialization of rooms versus an increasing demand for courses featuring laboratory components. The overall student population has also grown substantially.

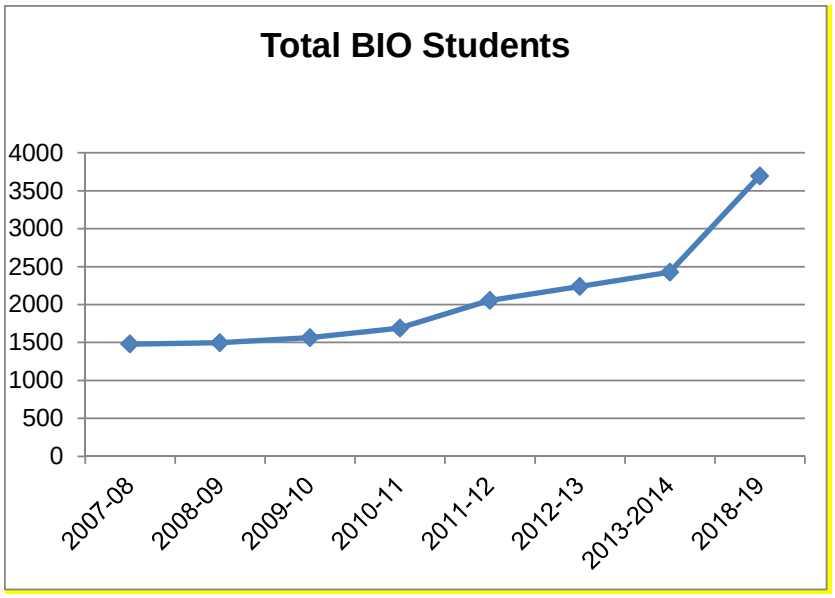
Enrollment growth

In recent years, the Department of Biology has expanded significantly and is one of the largest disciplines on the UTM campus. In 2002/03 there were ~1600 FCE students in Biology courses and by 2009/10 there were almost 3800 FCE students (*source: UTM Dean's Office).* By 2013, that count had increased to 3825 FCE students.



As noted above, the department likewise offers programs that are in high demand. In comparison to other science departments, Biology has the greatest total number of graduating students and more than 4 times the number of Specialist graduating students compared to any other science departments at UTM.

The number of students enrolled in Biology courses grew from just under 1500 in 2007/08 to more than 2400 in 2013/14 with significant acceleration in that growth beginning in 2011/12 increases. Over the next five-year period, (note the scale shift in the graph below), by 2018/19 that total is conservatively estimated to reach just under 3700. The renovation of the 4th floor Biology teaching laboratories (2012) significantly improved the teaching experience for upper year students. This proposed renovation will follow through with the plan and not only dramatically transform the 1st year laboratories, but provide teaching laboratories that will be able to absorb the overall growth expectations in Biology.



Weekly Student Contact Hours

The following tables indicate the Weekly Student Contact Hours (WSCH) generated by student enrolments for each Biology course with a teaching laboratory component (practical hours) for the Fall 2012. Combined with COU space guideline of 0.6nasm per WSCH the total COU recommended area was calculated and compared to the proposed.

Table #1 – Existing Biology Teaching Laboratory Courses, Fall 2012

TEACHING LABS					
Course	**Enrolment Fall 2012**	**Practical Hours / Week**	**WSCH**	**COU Space Factor**	**NASM Generated**
BIO 152	768	1.5	1,152	0.6	691.2
BIO 204	306	1.5	459	0.6	275.4
BIO 313	24	3	72	0.6	43.2
BIO 314	132	4	528	0.6	316.8
BIO 318	48	3	144	0.6	86.4
BIO 333	24	1.5	36	0.6	21.6
BIO 335	24	3	72	0.6	43.2
BIO 338	39	3	117	0.6	70.2
BIO 354	93	3	279	0.6	167.4
BIO 370	72	3	216	0.6	129.6
FSC 300	23	2	46	0.6	27.6
Total	**1,553**	**28.5**	**3121**	**0.6**	**1872.7**

Average WSCH per enrolled student = 2.0

The first year instruction consists of BIO152 in the Fall and BIO153 in the Spring term (enrolment numbers in those two courses are very balanced between Fall and Spring, as is the overall teaching load in the department). As noted in Table #1 above, BIO152 had enrollment of 768 students in 2012. That has grown to 816 in 2013, and is expected to reach 960 students in 2014. This number will further increase with planned campus wide enrollment increase and the specific enrolment growth expected in Biology as noted previously.

The table above illustrates the COU generated space for all Biology courses using November 1, 2012 data; 1872.7 nasm. If we then use the predicted enrollment of 960 students in BIO152 in 2014 when the laboratories become operational, COU generates 864nasm of laboratory space. This is significantly more than the actual space now available for the biology 1st year laboratories (565nasm) or that which will be available through this project (598nasm).

Laboratory Schedules

The laboratories are and will be used over 24 hours per week. Traditionally mornings are dedicated to lectures and afternoons to laboratories. Evening lab sessions are being introduced to accommodate scheduling conflicts and increasing number of students.

BIO152 Lab Organization - Fall 2014

		Afternoon A	# students	Afternoon B	# students	Evening	# students
Monday	Lab Bay 1&2	1:00-3:00	2x24	3:00-5:00	2x24		
	Lab Bay 3&4	1:00-3:00	2x24	3:00-5:00	2x24		
Tuesday	Lab Bay 1&2	1:00-3:00	2x24	3:00-5:00	24	6:00-8:00	24
	Lab Bay 3&4	1:00-3:00	2x24	3:00-5:00	2x24		
Wednesday	Lab Bay 1&2	1:00-3:00	2x24	3:00-5:00	2x24		
	Lab Bay 3&4	1:00-3:00	2x24	3:00-5:00	2x24		
Thursday	Lab Bay 1&2	1:00-3:00	2x24	3:00-5:00	24	6:00-8:00	24
	Lab Bay 3&4	1:00-3:00	2x24	3:00-5:00	2x24		
Friday	Lab Bay 1&2	1:00-3:00	2x24	3:00-5:00	2x24		
	Lab Bay 3&4	1:00-3:00	2x24	3:00-5:00	2x24		

Total students every week: 960 anticipated (1000 capacity)
Lab Bay 1&2 will be in use for student schedulled activities minimum of 24 hours

The proposed renovation will use relatively small footprint of student stations. This decision was made to accommodate teaching of four sessions of 24 students. As noted earlier, the growth in demand for Biology courses and the associated enrollment is conservatively expected to grow by at least 5% year over year for the next five-year period. With the completion of this project, teaching laboratory space will be fixed at significantly less than that generated by current COU standards. The laboratory is being designed (as was the upper year teaching laboratory done in 2012) to maximize efficiency and enable optimal throughput/utilization. The combination of increasing enrolment and fixed space will significantly impact utilization.

III. PROJECT DESCRIPTION

a) Vision Statement

The Department of Biology envisions its students receiving a first-class, contemporary education that reflects the modern field of biology. The expectation is that all students will understand the scientific methods required to advance knowledge, that they will develop the capacity to critically evaluate the world around them, and that some of them will go on to become the next generation biologists. To achieve this vision, students need access to state-of-the-art laboratories equipped with technology and equipment that will enable the latest pedagogical approaches to biology education.

The following are key elements to the vision for new biology laboratories:

- Create a laboratory layout within the building footprint that encourages efficient use of available space by students, staff, instructors and teaching assistants;
- Provide internet-capable workstations at student work areas to enable electronic lab protocols, e-data collection and submission of work;
- Create an environment that promotes teamwork, collaboration and creativity among students, staff and faculty;
- Combine large open spaces for some classroom activities alongside smaller more intimate settings. Consistency in design, technology, furniture and equipment between labs will facilitate flexibility in scheduling and increase room use efficiency;
- Create attractive, welcoming spaces that are ergonomically designed to enable the maximum numbers of students to flow through the space with minimal effort;
- Reclaim natural lighting to the laboratories wherever possible.

Incorporation of these elements into the overall laboratory design will transform the UTM Biology laboratory-based education by creating efficient, attractive space in combination with technology that promotes teamwork and collaboration. To fully achieve the department's educational vision, a joint effort between Biology, Facilities Management &Planning, the Registrar's Office, and Information and Instructional Technology Services is required to implement not only the physical revitalization of the building but also to maintain the space, schedule and timetable the occupation of the labs for its most efficient use.

This vision also recognizes that scholarship at UTM encompasses both teaching and research as inseparable activities. As such, every effort will be made during the planning and construction process to acknowledge that the W.G. Davis Building is an active research environment. The proposed renovations have the potential to significantly disrupt research, so proper redundancy and contingency planning to protect research will take place in parallel with renovation design and implementation.

b) Space Program & Functional Plan

The proposed space program allocation of 598 nasm, including the laboratory technician's office (33 nasm) on the 2nd floor, represents approximately the same area compared to the existing allocation 557 nasm of 1st floor teaching laboratories.

The renovation will provide teaching efficiencies by creating two 48-seat laboratories. This allows flexibility in the scheduling of larger class sections as well as the option of splitting the sections into smaller groups (12 to 24 students). Larger classes are frequently perceived as one of the main barriers to quality learning, and there are many studies that point to the challenges of teaching large classes.

Often overcrowded and noisy laboratories offer a poor learning environment. Small stations with a total of 48 students were recommended as an appropriate number for first year students.

The technology incorporated into the laboratory will include computers at each teaching station, direct visual access to a central demonstration counter, and audio-visual teaching presentation stations.

This flexible design offers many advantages, including the active engagement of students in projects of their own choosing, individualized instruction, as well as frequent opportunities for formative assessment by the instructors if necessary. The teaching assistants may also confer with individuals and small groups under this setting either at the student benches, at the instructional area or at moveable tables specifically designed for small group discussions. This approach permits students to also learn many valuable social skills in the spirit of collaboration and cooperation.

The plan proposes a central preparation space, versus the current model of several small preparation rooms. It is expected that this will create space efficiencies and reduce the distance and travel time between preparation space and teaching laboratories. The central preparation space will allow for shared equipment, materials, and document resources thus creating further operational efficiencies for the department. Perhaps most important, a central preparation room will allow for sharing of information and the fostering of community and cooperation among the various technical and academic staff using these spaces.

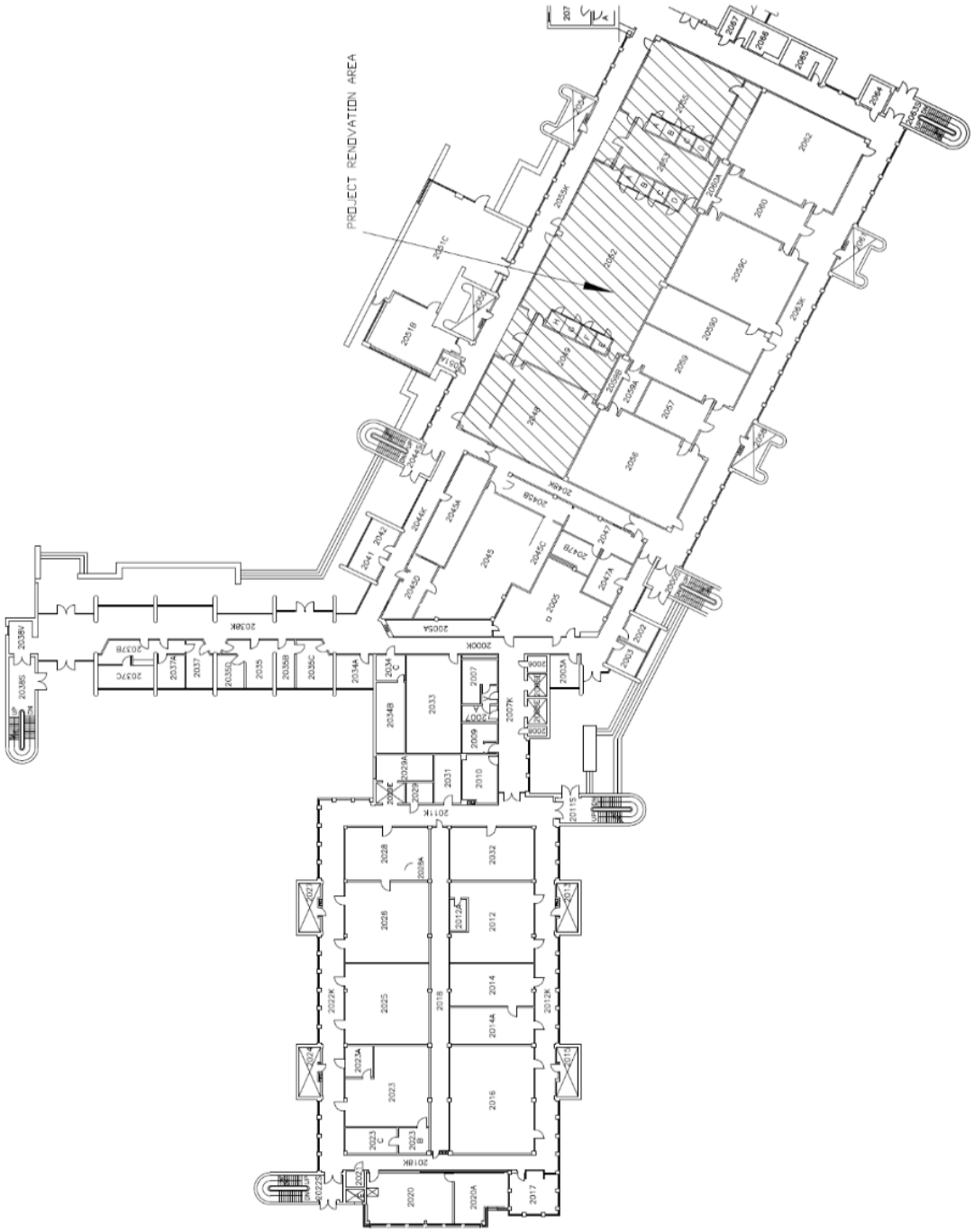
All of these elements were used and have been experienced in the first Biology teaching laboratory renovation that was completed in 2012.

The new lab design will seamlessly allow for an increase in student enrolment in the first year lab courses and enable the department to efficiently schedule an increased number of labs sessions in the newly designed space.

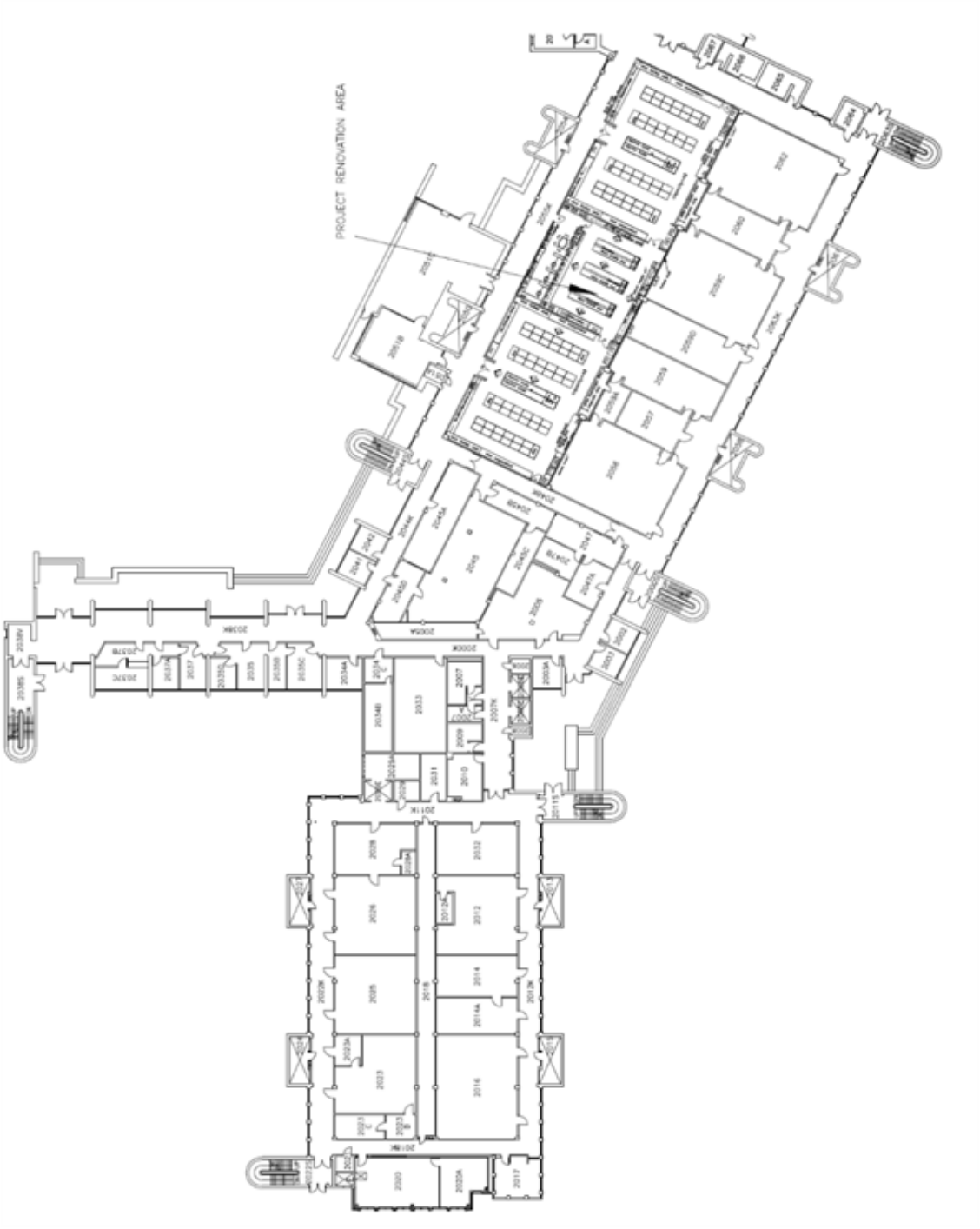
UTM Biology Teaching Laboratory Space Program

SPACE USE	CAPACITY	SPACE PROGRAM (NASM)
Undergraduate Teaching Laboratories		
Laboratory #1	48	225
Laboratory #2	48	225
Sub-total	**96**	**450**
Laboratory Support Spaces		
Main Laboratory Preparation Room	5	115
Sub-total	**5**	**115**
Lab Related Academic Office Space		
Lab Technician Office	2	33
Sub-total	**2**	**33**
Grand Total		**598**

Existing layout W. G. Davis Building 2nd floor area to be renovated:



Proposed layout W.G. Davis Building 2 nd floor with new laboratories:



c) Building Considerations

Accessibility
The University of Toronto is committed to ensuring that its buildings and services are accessible to persons with disabilities and requires all consultants to adhere to University's Barrier Free Design Standards.

The laboratory will provide an accessible layout (min 5ft wide isles), no dead end corridors, door operators on main entry doors, access to a barrier-free student station in each teaching laboratory, and electronic teaching podium with voice support and data integration.

Safety and Security
Access to the 2nd floor Biology teaching laboratories will be controlled by electronic card system.
The doors to the preparation room, technician's offices and between the laboratories will be controlled by mechanical keys. These keys will be distributed to the laboratory technicians only.

All laboratory furniture storage areas are to be lockable to control access to stored apparatus.

Computing
The proposed laboratory will have computer stations integrated throughout the room allowing students to access laboratory materials, course information, and to share experimental data and submit laboratory reports.

Computing and communications will utilize the network already available in the W.G. Davis Building. The laboratory will have several dedicated data ports for presentation areas in addition to a wireless environment throughout all of the laboratories.

d) Site Considerations

Campus Planning
UTM accommodates its academic activities in several buildings across campus. The W.G. Davis Building provides wet laboratories required for teaching and research activities of the physical and life sciences. The North Building Reconstruction and UTM Innovation Complex, both under construction, will provide urgently needed space for academic offices, dry laboratories and classrooms. However, at the present time there is no funded plan to create science expansion, so, the modernization and renovation of the existing serviced space in the W.G. Davis Building for research and teaching laboratories continues to be accorded a high priority.

e) Campus Infrastructure Considerations

The 2011 modernization of the "D Wing" HVAC, Building Automation System, Mechanical and Electrical infrastructure addressed the major shortcomings of that portion of the W. G. Davis Building. The changes in infrastructure have allowed greater environment control while enhancing the safety of HVAC operation particularly fume hood activities.

The required infrastructure and services for the operation of the renovated laboratories are available within the existing W.G. Davis Building providing a foundation for modernization.

The complexity of modern teaching labs has increased operational requirements. The increased ventilation brought on by fume hood requirements has resulted in greater consumption of energy both electricity and natural gas. The installation of high performance fume hoods has allowed UTM to pursue energy savings propositions that were previously not possible from the original HVAC design.

The building's compressed air system is already servicing existing teaching laboratories. While the compressed air is not of instrument grade quality, it is adequate for Biology teaching requirements.

f) Environmental Impact – Construction/Renovation

Design and construction must be carried out in accordance with all applicable environmental, health and safety legislation and University of Toronto policies and standards.

Older equipment suspected of containing Polychlorinated Biphenyls (PCBs) materials, being removed from laboratories during decommissioning, must be carefully screened for PCBs. The current lighting, fluorescent lighting ballasts may contain PCBs, which are heavily regulated substances under the Canadian Environmental Protection Act. Proper disposal procedures for PCB ballasts must be followed.

The benefits of a lighting retrofit to include the removal of PCBs and replacing them with energy efficient lighting fixtures with ballasts that do not include PCBs or other highly regulated materials. In addition, through a lighting retrofit, the laboratory will reduce energy consumption, and the generation of waste from lamp replacement, due to the much longer lifetime of the proposed lighting retrofits.

Designated substances (e.g. asbestos, lead, silica, mercury, etc.) are materials that, due to the known risks associated with exposure, handling, or storage, are strictly regulated under the Occupational Health and Safety Act. Under the Act, before beginning a project, an assessment shall be conducted to determine whether any designated substances are present at the project site.

Wherever possible, the remediation of any identified designated substances shall be performed in accordance with applicable regulations, prior to any construction and/or renovation activities.

Proper disposal of all designated substances and hazardous materials must be done in accordance with applicable regulations to prevent any environmental impact during waste disposal.

g) Environmental Impact – Laboratory Operation

The proposed renovation addresses this recommendation and the following specific objectives as outlined in the University of Toronto Environmental Protection Policy:

Fundamental Principles

- Meet and where possible exceed environmental standards, regulation, and guidelines.
- Meet and where reasonably possible, exceed compliance with applicable federal, provincial and local environmental regulations and other requirements to which the University subscribes.
- Operate so as to minimize any negative impacts on the environment.
- Adopt practices that reflect the conservation and wise use of natural resources.
- Respect biodiversity.

Specific Objectives

- Minimize the use of energy, water and other resources, through efficient design, management and practice.
- Minimize waste generation and actively manage the impact of waste, emissions, & effluents generated by University activities.
- Minimize the use of chemicals and toxic substances to reduce environmental exposure and chemical wastes.
- Minimize noise and odour pollution from University activities.
- Manage the use of hazardous substances in accordance with regulatory requirements and established environmental practices, including scientific research practices.
- Promote sustainable use of materials and resources to reduce negative environmental impacts, while encouraging waste minimization.
- Include biodiversity and environmental concerns in planning and landscape decisions and minimize negative impacts of University activities on biodiversity and natural spaces.

h) Environmental Impact – Waste Management

The University is committed to being a positive and creative force in the protection of the local and global environment through its teaching, research, and administrative environments. It also recognizes that it and all members of the University community have the responsibility to act in ways consistent with its fundamental principles of minimizing negative impacts on the environment, and human health, and the conservation and wise use of natural resources.

i) Secondary Effects

No significant secondary effects are associated with this project. Construction will be scheduled to occur primarily over the summer and fall months of 2014.

j) Staging

No staging will be required for this project, as the space to be renovated was recently vacated by the Department of Chemical and Physical Sciences.

k) Phasing

The renovations of the undergraduate laboratories in the William G. Davis Building will take place from 2012 to 2016. This approach allows us to take advantage of the summer semester construction window and allow also for coordination with other capital projects that are planned for the UTM campus:

- Phase 1 - Biology teaching laboratory renovation 4th floor (completed in August 2012)
- Phase 2 - Anthropology teaching laboratory renovation 2nd floor (completed in August 2012)
- Phase 3 - Chemistry teaching laboratory renovation 3rd floor (completed in August 2013)
- Phase 6 - Physics teaching laboratory renovation (currently under construction)
- Phase 4 - Biology undergraduate teaching laboratory renovations including relocation from the 1st to the 2 nd floor
  (this project planning report)

Upcoming and concluding phases:

- Phase 5 - Teaching laboratory renovations2nd floor West side (Summer 2015)
- Phase 7 - Research laboratory renovations - secondary effects (Summer 2016)

l) Schedule

The proposed UTM Teaching Laboratory Renovation - Phase 4 (Biology 2nd floor) will take place between April 1 and January 1, 2015 .

Biology will make provisions to maximize the construction window by allowing decontamination and subsequent demolition to begin as early as possible (potentially the end of March 2014).

UofT and UTM governance approvals	November 2013 to February 27, 2014
Laboratory Bench/Fume Hood Tender	March 2014
Permit Application	February 2014
Advance/Preparatory work	April 2014
General Tender	April 2014
Construction	April- December 2014
Occupancy	January 2015

The proposed schedule is based on advanced planning to allow for construction to commence in April immediately after classes finish. Preparatory work such as the abatement and demolition of these laboratories will likely proceed in March since the space will not be occupied. Careful coordination will be required to ensure that the early work does not have a negative impact on other users of the W.G. Davis Building D-block.

IV. RESOURCE IMPLICATIONS

a) Total Project Cost

The total estimated cost of the project includes estimates or allowances for the following items:

- construction cost (propose construction management as it was successfully used for other phases of the project)
- contingencies
- taxes
- hazardous waste removal
- secondary effects
- demolition
- permits and insurance
- professional fees
- moving, staging
- furniture and equipment (to accommodate new teaching methods)
- computer and telephone terminations
- security (combination of electronic card access and hard keys)
- commissioning

Equipment and Furniture Cost
This renovation will include an allowance for new equipment required for the new space to accommodate new experiment and changes in the course curriculum. Appendix C, 'Equipment List (available on request), includes a full list of existing and new equipment, as well as furniture required for the project.

b) Operating Cost

We foresee that the cost of utilities in the renovated area will be reduced or remain the same because the number of Fume Hoods will be reduced and modern electronic BAS system such as Aircuity (used on the 4th floor) will be used to ventilate the room in a safe and efficient manner.

Due to the increased usage of these laboratories, it will be necessary to allow for increased cleaning costs associated with the maintenance of these areas. It is anticipated that these costs will increase from their current level of $ 25,300 per annum to approximately $ 43,300 per annum. Provision has been made within the UTM Operating Budget to cover these costs.

c) Funding Sources

Phase 4 will be funded from Capital Reserves derived from the UTM Operating Budget.

V. RECOMMENDATIONS

It is recommended that the Campus Affairs Committee recommend to the Campus Council:

1. THAT the Project Planning Committee Report for the Renovation of Biology Undergraduate Teaching laboratories at the University of Toronto Mississauga, dated November 1, 2013, be approved in principle; and.

2. THAT the total project scope of approximately 598 gross square meters (approximately 598 nasm), be approved in principle, to be fully funded from Capital Reserves derived from the UTM Operating Budget.

APPENDICES

Appendix A: Existing Space Inventory
Appendix B: Room Specification Sheets (available on request)
Appendix C: Equipment List (available on request)
Appendix D: Total Project Cost
Appendix E: Environmental Checklist (available on request)

APPENDIX A:
EXISTING SPACE INVENTORY

The following table summarizes the space inventory affected by the proposed renovation

Table – Existing UTM Biology Teaching Laboratory Space Inventory

Flr	Rm	Cat	Cat Name	Share Type	Percent	Occ	Area (nasm)	Use Current	Proposed
1	1080	02.1	Sched Class Lab	None	100	24	120.66	BIO	unallocated
1	1082	02.1	Sched Class Lab	None	100	24	121.74	BIO	unallocated
1	1085	02.1	Sched Class Lab	None	100	24	121.74	BIO	unallocated
1	1087	02.1	Sched Class Lab	None	100	24	102.45	BIO	unallocated
4	4071	02.1	Sched Class Lab	None	100	48	219.21	BIO	BIO
4	4072	02.1	Sched Class Lab	None	100	48	219.13	BIO	BIO
4	4073	02.1	Sched Class Lab	None	100	36	157.28	BIO	BIO
4	4076	02.1	Sched Class Lab	None	100	48	220.09	BIO	BIO
4	4077	02.1	Sched Class Lab	None	100	48	219.55	BIO	BIO
							1501.85		
1	1081	02.3	Undrgr Lab Supt	None	100	0	24.30	BIO	unallocated
1	1084	02.3	Undrgr Lab Supt	None	100	0	20.67	BIO	unallocated
1	1086	02.3	Undrgr Lab Supt	None	100	0	45.63	BIO	unallocated
2	2064	02.3	Undrgr Lab Supt	None	100	0	7.83	BIO	BIO
4	4007	02.3	Undrgr Lab Supt	Space	50	0	27.41	BIO	BIO
4	4074	02.3	Undrgr Lab Supt	None	100	0	177.05	BIO	BIO
4	4074A	02.3	Undrgr Lab Supt	None	100	0	13.41	BIO	BIO
4	4088	02.3	Undrgr Lab Supt	None	100	6	10.25	BIO	BIO
5	5036	02.3	Undrgr Lab Supt	Space	75	1	21.68	BIO	BIO
5	5036B	02.3	Undrgr Lab Supt	Space	60	0	129.89	BIO	BIO
							478.12		
				Category 2 Total			1,979.97		

Table – Proposed Space for Renovation

Flr	Rm	Cat	Cat Name	Share Type	Percent	Occ	Area (nasm)	Use Current	Proposed
2	2048	3.1	vacant	Space	100	0	84.58	unallocated	BIO
2	2048	4.3	vacant	Space	100	0	36.25	unallocated	BIO
2	2049	3.1	vacant	Space	100	0	45.63	unallocated	BIO
2	2052	2.1	vacant	Space	100	0	216.62	unallocated	BIO
2	2052A	2.3	vacant	Space	100	0	3.28	unallocated	BIO
2	2052B	2.3	vacant	Space	100	0	3.28	unallocated	BIO
2	2052C	2.3	vacant	Space	100	0	3.15	unallocated	BIO
2	2052D	2.3	vacant	Space	100	0	3.15	unallocated	BIO
2	2052E	2.3	vacant	Space	100	0	3.15	unallocated	BIO
2	2052F	2.3	vacant	Space	100	0	3.15	unallocated	BIO
2	2052G	2.3	vacant	Space	100	0	3.28	unallocated	BIO
2	2052H	2.3	vacant	Space	100	0	3.28	unallocated	BIO
2	2053	2.3	vacant	Space	100	0	30.57	unallocated	BIO
2	2053	4.4	vacant	Space	100	0	15.06	unallocated	BIO
2	2055	2.1	vacant	Space	100	0	106.4	unallocated	BIO
2	2055 A	2.3	vacant	Space	100	0	3.28	unallocated	BIO
2	2055 B	2.3	vacant	Space	100	0	3.28	unallocated	BIO
2	2055C	2.3	vacant	Space	100	0	3.15	unallocated	BIO
2	2055D	2.3	vacant	Space	100	0	3.15	unallocated	BIO
2	2055K	16.2	vacant	Space	100	0	24.30	unallocated	BIO
							597.99		

	Use Current [nasm]	Proposed Use	Proposed [nasm]
Biology	1423	Phase 4	598
Unallocated	598	Phase 7	478

UNIVERSITY OF TORONTO MISSISSAUGA

OFFICE OF THE CAMPUS COUNCIL

FOR RECOMMENDATION **PUBLIC** **OPEN SESSION**

5

TO: Campus Affairs Committee

SPONSOR: Paul Donoghue, Chief Administrative Officer
CONTACT INFO: 905-828-3707, paul.donoghue@utoronto.ca

PRESENTER: See Sponsor
CONTACT INFO:

DATE: November 4, 2013 for November 11, 2013

AGENDA ITEM: 5

ITEM IDENTIFICATION:

Capital Project: Project Planning Report for the University of Toronto Mississauga Biology Greenhouse.

JURISDICTIONAL INFORMATION:

Section 5.6.2 of the Campus Affairs Committee Terms of Reference states that the Committee "considers reports of project planning committees and recommends to the UTM Campus Council approval in principle of projects (i.e. site, space plan, overall cost and sources of funds) with a capital cost as specified in the *Policy on Capital Planning and Capital Projects*."

The *Policy on Capital Planning and Capital Projects* provide that capital projects with a project budget over $3 million and up to $10 million (Approval Level 2), at UTM will be considered by the UTM Campus Affairs Committee and the UTM Campus Council, before being recommended to the Academic Board for approval. Such proposals are then brought forward to the Executive Committee for confirmation.

The Business Board is responsible for approving the establishment of appropriations for individual projects and authorizing their execution within the approved costs.

GOVERNANCE PATH:

1. **Campus Affairs Committee [For Recommendation] (November 11, 2013)**
2. Campus Council [For Recommendation] (December 9, 2013)
3. Academic Board [For Approval] (January 30, 2014)
4. Executive Committee [For Confirmation] (February 27, 2014)

PREVIOUS ACTION TAKEN:

No previous action in governance has been taken on this project.

HIGHLIGHTS:

The proposed Biology Greenhouse at UTM will provide a much-needed new modern facility for a significant amount of increasingly sophisticated research needs. UTM currently has 169 net assignable square meters (nasm) dedicated to a greenhouse at the rooftop level of the Davis Building. The facility is an important support to both research and teaching. Areas of research that rely upon this facility include: climate change; plant ecology; plant molecular systematics; plant taxonomy; molecular genetics; genomics and bioinformatics; and, insect neuroendocrinology. Undergraduate laboratories using plant material supplied and maintained by the existing greenhouse are associated with many courses within the major and specialist programs in Biology. The greenhouse is managed by a full-time horticulturalist and operated with part-time staff and undergraduate volunteers. This proposal has been reviewed and endorsed by UTM's Grounds Monitoring Committee (regarding site) and the Space Planning & Management Committee (for information).

The Need for a New Facility:

The existing greenhouse is original to the building (about 45 years old), and is beyond its expected service life, increasingly plagued by operational problems that render it unreliable. While recent investments in control, monitoring and operational systems have been made, such measures are seen as a stop-gap until a new facility can be built. This is particularly important in terms of the role the greenhouse plays in supporting increasingly sophisticated research needs. Re-building the existing greenhouse on site has been considered and is not deemed an acceptable option. First, the greenhouse would have to be taken out of service during the re-construction, thereby impacting both ongoing research and the supply of teaching materials. Second, re-building such a facility in the current rooftop location would be prohibitively expensive compared to a free-standing structure. Finally, the current location would not permit any significant increase in overall size to accommodate the increased needs already being experienced, let alone provide for future growth. As noted by the Biology Ad hoc Committee on the current UTM Greenhouse, "the current greenhouse provides an important and necessary function in the Biology Department in maintaining plant material for teaching and for research needs". However, due to the age and limiting design, a new modern facility is urgently needed. Over the past five years, UTM has recruited six plant-oriented biologists and geographers and additional, similar recruitments are anticipated; all of which will build on important strengths at UTM on plant-based research. The increased demand on greenhouse space, coupled with the decay of the present facility, combine to create a critical need for a facility.

Space Program and Functional Plan:

The proposed project includes the construction of a header house (containing support areas, incoming and distribution of services to the rest of the structure) and the first of potentially four glass houses, each of which is further divided into six separately controlled areas.

The proposed greenhouse will address the current and anticipated research needs and provide for future expansion to support teaching and research in four phases:

Phase 1: (this project) will consist of the site development, a header house and construction of a single glass structure, subdivided into six-modular units.

Phases 2, 3 and 4 (to be brought forward as separate projects as funding becomes available), will each include one six-modular greenhouse unit with a common corridor. In the meantime, the existing greenhouse will be maintained and will focus on the supply of teaching materials.

Operating Costs:

Provision has been made in UTM's Operating Budget to cover annual operating costs and plans are being developed to recover a portion of those costs, where appropriate, from individual researchers. It is expected that the project will take approximately 18 months to complete, subject to receiving the necessary environmental and building approvals from local and provincial authorities.

Schedule:

- Governance approval – November 2013 to February 2014
- Consultant selection – March 2014
- Design development and contract drawings March – May 2014
- Tender and Award June 2014
- Mobilization and Construction July 2014 – June 2015
- Commissioning and moving July 2015
- Full operational occupancy by division August 2015

FINANCIAL IMPLICATIONS:

The overall cost of the project, as well as the delineation of amounts derived from the various sources of funds, will be considered in the *in camera* session of the meeting (a separate cover sheet has been provided to members).

RECOMMENDATION:

Be It Recommended to the University of Toronto Mississauga Campus Council:

1. THAT the Project Planning Committee Report for the Renovation of Biology Undergraduate Teaching laboratories at the University of Toronto Mississauga, dated October 31, 2013, be approved in principle; and

2. THAT the total project scope of approximately 598 gross square meters (approximately 598 nasm), be approved in principle, to be fully funded from Capital Reserves derived from the UTM Operating Budget.

Campus Affairs Committee – Capital Project: Project Planning Report for the University of Toronto Mississauga Biology Greenhouse

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DOCUMENTATION PROVIDED:

Project Planning Report for a Biology Greenhouse at the University of Toronto Mississauga

UNIVERSITY OF TORONTO MISSISSAUGA
FACILITIES MANAGEMENT & PLANNING

Project Planning Report for a Biology Greenhouse at the University of Toronto Mississauga

October 31, 2013

Table of Contents

Project Planning Report for a Biology Greenhouse

I. Executive Summary

UTM currently has 169 nasm dedicated to a greenhouse at the rooftop level of the Davis Building. The facility is an important support to both research and teaching. . Areas of researcher that rely upon this facility include: climate change; plant ecology; plant molecular systematics; plant taxonomy; molecular genetics; genomics and bioinformatics; and, insect neuroendocrinology. Undergraduate laboratories using plant material supplied and maintained by the existing greenhouse are associated with many courses within the major and specialist programs in Biology. The greenhouse is managed by a full-time horticulturalist and operated with part-time staff and undergraduate volunteers.

The greenhouse is over 40 years old, and is plagued by operational problems that increasingly render it unreliable. While recent investments in control, monitoring and operational systems have been made, such measures are seen as stop-gap until a new facility can be built. This is particularly important in terms of the role the greenhouse plays in supporting increasingly sophisticated research needs of faculty and the associated activity of both graduate and undergraduate students.

Re-building the existing greenhouse on site has been considered and is not deemed an acceptable option. First, the greenhouse would have to be taken out of service during the re-construction, thereby impacting both ongoing research and the supply of teaching materials. Second, re-building such a facility in the current rooftop location would be prohibitively expensive compared to a free-standing structure. Finally, the current location would not permit any significant increase in overall size to accommodate the increased needs already being experienced, let alone provide for future growth. As noted by the Biology Ad hoc Committee on the UTM Greenhouse, “the current greenhouse provides an important and necessary function in the Biology Department in maintaining plant material for teaching and for research needs”. However, due to the age and limiting design, a new modern facility is urgently needed.

The proposed project includes the construction of a header house (containing support areas, incoming and distribution of services to the rest of the structure) and the first of potentially four glass houses, each of which is further divided into six separately controlled areas. Services will be sized to support future expansion, which will be undertaken as separate projects and as funding becomes available. Priority is being accorded to research support because of the more demanding requirements of activities that must be done on a scale beyond what can reasonable be accommodated in bio-chamber facilities. The existing greenhouse will continue to be used for the provision and maintenance of teaching materials that will eventually be accommodated in future expansion phases.

The proposed greenhouse will be funded by Capital Reserves from the UTM Operating Budget. Provision has been made in UTM’s Operating Budget to cover annual operating costs of between $140,000 to $153,600. Plans will be developed to recover a portion of those costs, where appropriate, from individual researchers. It is expected that the project will take approximately 18 months to complete, subject to receiving the necessary environmental and building approvals from local and provincial authorities. Preliminary work on an environmental sensitivity analysis, including species at risk, is currently underway in anticipation of local permit and provincial approval requirements.

II. Project Background

a) Membership

Bryan Stewart, VP Research, UTM
Angela B. Lange, (Chair) Professor & Director of Research, Department of Biology, UTM
Marc Johnson, Assistant Professor, Department of Biology, UTM
Ingo Ensminger, Assistant Professor, Department of Biology, UTM
Peter Kotanen, Associate Professor, Department of Biology, UTM
Christoph Richter, Lecturer, Department of Biology, UTM
Tim Duvall, Assistant Professor, Department of Geography, UTM
Maria Codispoti, Manager Design and Construction, (FM&P UTM)
Stepanka Elias, Assistant Director Planning Design and Construction (FM&P UTM)
William Yasui, Senior Facilities Planner, (FM&P UTM)

b) Terms of Reference

1. Define the present and future needs for a research greenhouse at UTM.
2. Outline operational implication of a research greenhouse (utilities, maintenance, staffing, etc.).
3. Determine a functional layout of the space required for a modular research greenhouse structure.
4. Determine any secondary effects to the project and related resource implications of these effects.
5. Identify all equipment and moveable furnishings necessary to the project and their related costs.
6. Determine a total project cost (TPC) estimate for the capital project, including costs associated with secondary effects and infrastructure.
7. Identify all sources of funding for the capital project and any increased operating costs once the project is complete.
8. Report by October 15, 2013.

c) Background Information

UTM currently has a 169 nasm rooftop greenhouse above the research wing of the Davis Building. The greenhouse is an essential support to UTM's Biology Department, providing a wide variety of plant specimens used in both research and undergraduate teaching. Researchers that rely on this facility specialize in areas such as: climate change; plant ecology; plant molecular systematics; plant taxonomy; molecular genetics; genomics and bioinformatics; and insect neuroendocrinology. While some research activity is conducted in bio-chambers located elsewhere in the Davis Building, a significant amount of increasingly sophisticated research requires access to greenhouse-scale space. The greenhouse is managed by a full-time horticulturalist and operating with the support of part-time staff and undergraduate volunteers.

Now over 40 years old, the greenhouse is plagued by control system and mechanical breakdowns and can no longer be considered sufficiently reliable to support much of the research activity that is housed there. Continued, ad-hoc investments in repairs and upgrading have enabled the greenhouse to continue in operation, primarily in the role of support to teaching activity. Increasingly, it is not able to support the demands of important research activity. Researchers have had to: (i) not conduct certain types of experiments that they would otherwise do; (ii) conduct experiments only in the summer months; (iii) conduct small-scale experiments in environmental chambers; and (iv) over-rely on collaborative arrangements with colleagues at other institutions that have adequate growth space.

As noted by the Biology Ad hoc Committee on the current UTM Greenhouse, "the current greenhouse provides an important and necessary function in the Biology Department in maintaining plant material for teaching and for research needs not requiring environments rigorously controlled for pests, temperature, and lightning". Due to the age of this facility it is impossible to rely on the conditions within the current greenhouse and to also work in a pest free environment.

Over the past five years, UTM has recruited six plant-oriented biologists and geographers, significantly enhancing strength in plant biology. It has also resulted in increased pressure for improved infrastructure support to their research with a focus on greenhouse functionality. That pressure will continue with additional recruitments: one now underway in Biology for a developmental biologist and an anticipated search for an environmental scientist in geography. It is expected that 14 faculty will make immediate use of the new facility, a significant increase in both the number of users and the breadth of research that will be conducted. In addition, it is expected that 25 to 35 graduate students per year would directly benefit from the greenhouse project and that 30 to 40 undergraduate students per year would receive direct training in plant biology research in the new facility.

The increased demand on greenhouse space, coupled with the decay of the present facility, combine to create a critical need for a new greenhouse, initially to support research activity. The new research greenhouse will ideally have the capacity and technical flexibility to meet research needs for the next 5 years (the period of the academic plan). Our vision for this facility requires it to be sufficiently modular so that further expansion could be facilitated in subsequent planning cycles to support both research and teaching needs. Maintenance efforts to the existing greenhouse will be directed toward ensuring a continued supply of teaching materials until such time as that activity can be decanted to an expanded greenhouse facility.

d) Statement of Academic Plan

It is expected that in the next century, biologists will be leaders in the use of discovery-based science to tackle some of the world's greatest challenges, including climate change, food security, etc. To support progress in these and other areas related to plant biology and plant-animal interactions, a need to control and manipulate the environmental and growth parameters of our experimental organisms in a reproducible manner is of vital importance. The UTM Department of Biology is therefore engaged in a broad range of activities to enhance the existing and secure additional common or 'core' research facilities, including a Research Greenhouse. A *Research Greenhouse* is the first on Biology's priority list of infrastructure needs in the current Academic Plan (2012-2017).

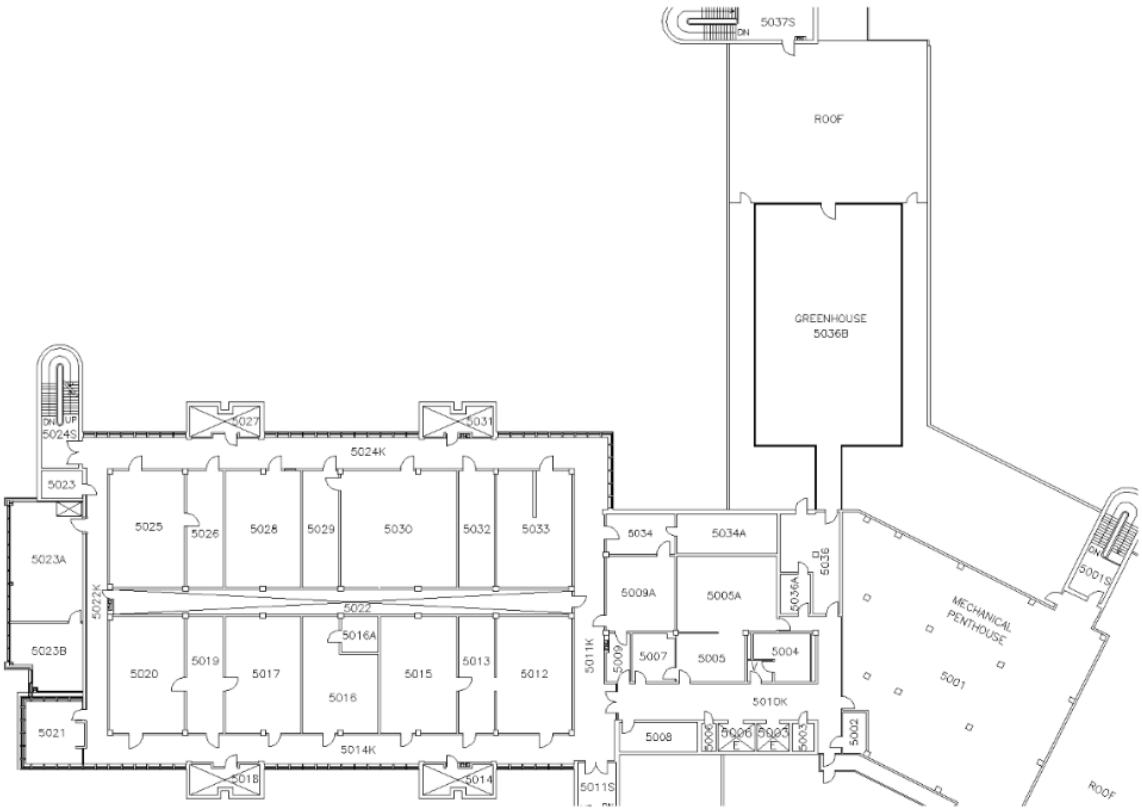
The Department of Biology has long had plant biology and plant-animal interactions as areas of strength among its research faculty; strength that has recently been bolstered by several tenure track hires in the departments of Biology and Geography, all of whom require access to greenhouse facilities for their research and teaching activity. These hires bring the total number who currently use or need access to a greenhouse for their research to twelve faculty members, with more anticipated. This growing intensity in plant research and its increasing sophistication, make it imperative that a new research greenhouse be made available to support current and future research needs. Investments are being made toward the overall research infrastructure to provide the environment needed to retain research faculty and to facilitate the recruitment of others. As noted above, this first phase of the greenhouse facility will support those plans for faculty and for research-related activities of graduate and undergraduate students.

As noted earlier, the new greenhouse will eventually be expanded to support the provision of teaching related materials. In the meantime and with the completion of the first phase of the greenhouse dedicated to research activity, all of the space within the existing greenhouse will be allocated to the support of teaching. Continuity in the supply of such materials is important. In recent years the Department of Biology has expanded significantly and is one of the largest disciplines on the UTM campus. In 2002/03 there were ~1600 FCE students in Biology courses and by 2009/10 there were almost 3200 FCE students. (*source: UTM Dean's Office).* The department likewise offers programs that are in high demand. In 2009/10 there were over 400 students enrolled in Biology Specialist Programs and over 800 in Biology Major programs. (*source: Department of Biology Self-Study 2010).*

e) Existing space:

The existing rooftop greenhouse is located on the 5th floor of the W.G. Davis building. The facility is original to the building (over 40 years old) and beyond it expected service life. As noted above, the greenhouse is increasingly difficult and expensive to maintain. Breakdowns and disruptions to control and mechanical systems are all too frequent, resulting in a facility with an unacceptable level of reliability to support research.

Furthermore, the existing greenhouse was designed as one large open space with common and limited temperature control. It is not an environment that can support increasingly sophisticated and differentiated research activity.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III. Project Description

a) Vision Statement

Plant biology in the Department of Biology at the University of Toronto Mississauga integrates research from genes to ecosystems. This research is heavily based on experimental approaches to address crucial questions such as the effects of climatic change on plant performance, biodiversity, plant-insect interaction, and adaptation to and mitigation of climatic change. For example, there is growing evidence that climate warming will not necessarily linearly extrapolate into a proportional lengthening of the growing season. A better understanding of interactions and feedbacks between vegetation and climate is a key target area of Canada's science and technology strategy ("Mobilizing Science and Technology to Canada's Advantage", Government of Canada, Ottawa, 2007). Ontario's Ministry of Natural Resources aims to develop the capability to assess the impacts of climate change on the province's ecosystems and natural resources (Climate Change and MNR: A Program-Level Strategy and Action Plan, 2007). The new greenhouse will provide a critical and timely contribution to our ability to influence federal and provincial evidence-based policies, because it will support process-based experimental research that will facilitate an understanding of adaptation and acclimation potential to climate change. A highly compartmentalized research greenhouse therefore creates a unique facility that generates vital national and international collaborations for the Department of Biology and UofT.

UTM researchers will be able to test plant performance under highly controlled conditions. Compartmentalization of the greenhouse will provide the means to replicate experiments and conduct simultaneous experiments simulating different growth conditions. This unique feature will also allow testing for species interactions under controlled conditions, e.g. plant-insect interactions in one compartment without hampering experiments in another compartment. The greenhouse is essential to expand the department's existing expertise in plant biology by adding the capacity for sophisticated experiments under highly controlled conditions to evaluate plant performance.

b) Space Program and Functional Plan

The proposed greenhouse will address the current and anticipated research needs and provide for future expansion to support teaching and research in four phases:

- Phase 1 (this project) will consist of the site development, a header house (providing support space, incoming/distribution of services and sized to accommodate future expansion) and construction of a single glass structure, subdivided into six-modular units.
- Phases 2, 3 and 4 (to be brought forward as separate projects as funding becomes available), will each include one six-modular greenhouse unit with a common corridor.

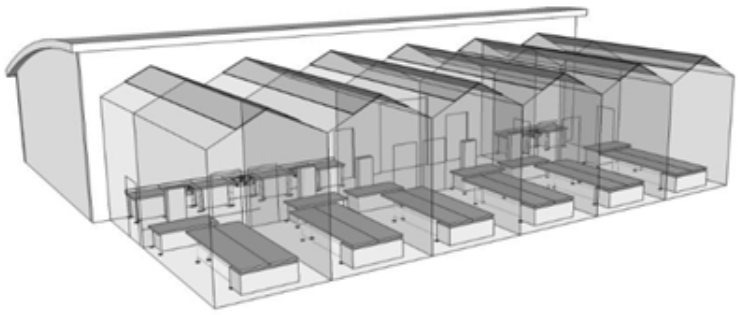
Description GREENHOUSE	Number	Area [sft]	 [nasm]	Total [gsm]	Total [nasm]
Greenhouse (std)	4	240	22.3	89.2	89.2
Greenhouse (special)	2	240	22.3	44.6	44.6
Corridor	1	720	66.9	66.9	_
SUB-total				200.7	133.8

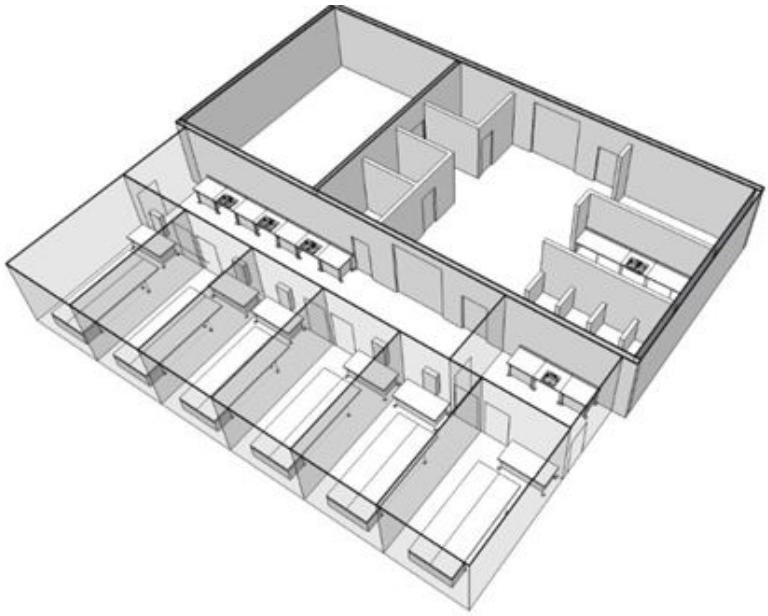
 HEADERHOUSE	Number	Area [sft]	 [nasm]	Total [gsm]	Total [nasm]
Office/Control Rm	1	100	9.3	9.3	9.3
Work area	1	220	20.4	20.4	20.4
Storage area	1	220	20.4	20.4	20.4
Receiving	1	680	63.2	63.2	63.2
Washroom	1	100	9.3	9.3	-
Utility (M&E)	1	850	79.0	79.0	-
Soil Clean up	1	220	20.4	20.4	20.4
Cooler	1	100	9.3	9.3	9.3
SUB-total				231.3	143.1

TOTAL				432.0	276.9

The layout of the greenhouse will be such that it will allow for the future expansion and utilization of the header house for all phases.

Possible layout of the first phase of the project.





Greenhouse Structure: Header house + phase 1

c) Building Considerations

Building characteristics and massing:

The proposed site for the greenhouse is located on the University of Toronto Mississauga Campus, northwest of the intersection of Outer Circle Road and Principal's Road. The site is immediately adjacent to a variety of research-related activities including dragonfly and bat research, environmental impact research, a weather station; a fenced, seasonal, outdoor plant growth area and a forensic science burial zone. A number of other locations were considered and rejected because they: (i) presented the potential for significantly higher costs as a result of specific site conditions; (ii) conflicted with identified future building sites as outlined in the Campus Master Plan; or (iii) were not of sufficient size to accommodate the anticipated footprint of the final greenhouse build-out.

As noted above, the proposed development consists of one greenhouse module (201m² or 134 nasm) and a new header house (231m² or 143 nasm) for a total gross floor area of 432m².

Ultimately, it is expected that an additional 3 greenhouse modules (5201m² each) will be constructed on the site (Phases 2-4, which will be done as separate projects). The final development is expected to have a total gross floor area of 1,127m² and occupy an area of approximately 0.4ha.

Structural complexity and built form

The header house can be constructed as either a prefabricated steel building or a masonry structure with lightweight steel framing. Both construction types can accommodate a variety of exterior cladding, roof profiles, exterior openings, greenhouse connections, etc.

Key building components and systems:

Water services to the proposed greenhouse will be provided from existing water main located along Principal's Road.

A new sanitary sewer is being constructed from the Outer Circle Road along Principal's Road to service Lislehurst Residence, the Rock Laboratory, the Grounds Building, and the Artist cottage (now a Forensics Science Crime Scene House). The greenhouse project will tie into that new sanitary sewer line.

The storm water management strategy will mitigate the storm water impacts associated with the proposed greenhouse without adding water to the storm water ponds located on the South part of campus. This strategy includes construction of infiltration trenches to allow runoff from the greenhouse roofs to infiltrate into the soil. This plan takes into account the size of the proposed greenhouse, characteristics of native soil, and City of Mississauga and Ontario Building Code (OBC) regulations.

An underground concrete encased primary service duct bank for primary electrical cables will bring 600-900kW of regular power at a high voltage from Outer Circle Road to an exterior utility-owned pad mount transformer adjacent to the Greenhouse perimeter fence. An exterior diesel 150kVA generator will provide power to the standby panel located in the electrical room of the header house. Battery back-up to meet OBC requirements shall be provided for the fire alarm system. Lighting systems will be designed with energy efficiency in mind while providing environmental control of the

space required satisfying UTM research initiatives. The overall design strategy will include significant attention to features that will mitigate any ambient light to surrounding areas.

Accessibility

The University is committed to students' equitable access to all of the building's facilities. Accordingly, the project must anticipate more stringent legislation under the revised Building Code (2012).

Personal safety and security

The building design will allow students, faculty, staff and visitors approved access as required. The design will be sensitive to the needs of those whose activities require security after hours. Limited areas of this building will be operational throughout the week, 24 hours a day.

Building Access Systems

Card readers will be installed on the main entry doors and on different zones of the greenhouse to manage access, and protect experiments. Any electronic security system will need to have hard key override for use by police, emergency, maintenance and custodial staff.

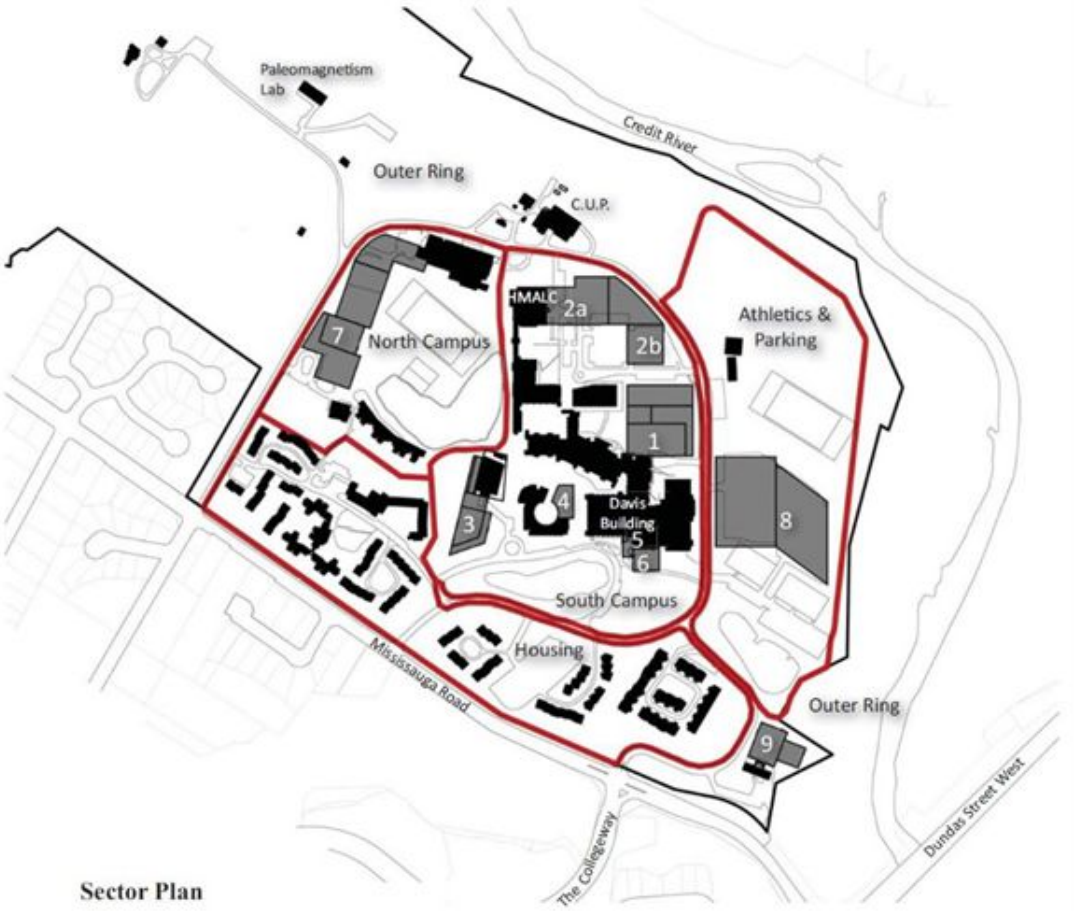
Non-public areas, for example, mechanical/electrical areas, custodial rooms and telecommunication closets, will require standard lock sets: Hard keys will conform to campus-approved Medeco standards. Servicing and Site Access (including garbage and recycling, deliveries)

A gravel driveway will provide access from Principal's Road and will wrap around the building. A loading dock and small parking area for service vehicles will be constructed as part of the project.

d) Site Considerations

<u>Campus Planning:</u>

Campus planning at UTM has evolved with enrolment growth and has been guided by key principles established in the Campus Master Plan of 2000, updated in 2011. Seven major buildings have been added to the inventory at UTM since 2000, and there are two others currently under construction; their siting and massing following the planning principles set out in in the Master Plan.



Sector Plan

South Campus
Site 1 Davis Building science expansion
Site 2 Hazel McCallion Learning Centre (HMALC) expansion, and new building
Site 3 Student Centre expansion, and new building
Site 4 Kaneff Building expansion
Site 5 Davis Building entry and tower addition
Site 6 Davis Building student plaza expansion

North Campus
Site 7 North Campus expansion

Athletics & Parking
Site 8 Athletics and parking

Outer Ring
Site 9 Alumni House
Central Utilities Plant (CUP)
Paleomagnetism Lab

Housing

Zoning regulations

The campus is identified by the Mississauga Zoning By-law 0225-2007 as Institutional. Further detail is provided under Part 12 of the By-law. The proposed site is well within minimum setbacks and other regulation lines on campus.

Although the Campus Master Plan does not include expansion of any academic, administrative, residential, or athletic facilities on the North Campus outside of the Outer Circle Road, as noted above, the area has been and will continue to be used to support formal and informal exterior research.

Landscape and open space

Landscaping surrounding the greenhouse will include a buffer zone and fencing to protect the glass structure of the proposed greenhouse. Surrounding the fenced area natural plant materials will be installed. Formal landscaping is neither appropriate nor planned: use of this area is limited to research-related activities.

Soil conditions:

Even though this site is at a relatively high point on the campus, high water tables have been found in nearby locations during the recent construction of buildings (e.g., the Instructional Centre) or other construction activities. It is possible that dewatering of the site will be required to control ground-source water during construction but given the slab-on-grade building, ongoing water management is not expected to be required.

e) Campus Infrastructure Considerations

Servicing and fire access:

As noted above, all services required to support the proposed greenhouse will be supplied from Principal's Road which will also act as the emergency access route

Environmental sensitivity:

Most of UTM's development areas lie within the Outer Circle Road (UTM Campus Master Plan 2011). One of the few exceptions are the outdoor research area(s). Numerous research and teaching programs have been taking place throughout the UTM campus for many years.

The area proposed to accommodate the research greenhouse used to be an old orchard, with most of existing growth consisting of lower bushes and invasive species. The proposal to locate the new greenhouse in this area has been endorsed by UTM's Grounds Monitoring Committee and discussed with local authorities, including the Credit Valey Conservation Authority A study of "Species at Risk" for the entire area of the North Campus is in progress to confirm any sensitive areas, manage UTM's natural environment and prepare for anticipated local permit and provincial approval requirements. The report is expected to be complete by the end of 2013; no issues have been identified in the work undertaken to-date.

f) Secondary Effects

The proposed area is vacant, so there are no secondary effects.

g) Schedule

Project milestones are to be identified for:

- Governance approval– November 2013 to February 2014
- Consultant selection – March 2014

- Design development and contract drawings March – May 2014
- Tender and award June 2014
- Mobilization and construction July 2014 – June 2015
- Commissioning and moving July 2015
- Full operational occupancy by division August 2015

IV. Resource Implications

a) Total Project Cost Estimate

The total estimated cost for the project includes estimates or allowances for the following:

- Construction costs, assuming a construction management contract strategy starting in the Summer of 2014. Construction management style was selected because the project has several independent portions that should be managed separately.
- Contingencies (typical UTM)
- Taxes
- Hazardous waste removal & disposal costs for hazardous materials (an allowance for possible soil contamination during the use of the area as an orchard)
- Site service relocates (N/A)
- Infrastructure upgrades in the sector (significant portion of the project is the construction of new gas service, water service, sanitary sewer, data & phone lines, and electrical service)
- Secondary effects (N/A)
- Demolition (N/A)
- Landscaping (minimal due to the nature and location of the greenhouse facility)
- Permits and insurance (an allowance for permits and insurance based on experience working with local authorities)
- Professional fees, architect, engineer, greenhouse consultant, and project management
- Computer and telephone terminations
- Moving and staging, decommission of labs being vacated (allowance for moving existing research operation from the W.G. Davis building)
- Furniture and equipment (research equipment is outside of the scope of work of this project and will be provided by faculty using the space; the cost estimate includes basic set up for the greenhouse incl. benches, storage shelving, shovels, houses, etc.)
- Miscellaneous costs (allowance for signage, security, other)
- Commissioning
- Donor recognition
- Escalation
- Financing costs during design & construction (no financing required)

b) Operating Costs

It is understood that operating costs for a greenhouse can be significant, so estimates for energy costs, maintenance costs, labor costs, transportation costs were calculated.

Summary Projected Annual Operating Costs:

Sections 1: Energy Costs	$ 26,000 +
Sections 2: Maintenance Costs	$ 46,400 – $ 60,000
Sections 3: Additional Costs	$ 60,000
Sections 4: Transportation Costs	$ 7,600
Sections 5: Other Costs	N/A
	Total: $ 140,000 – $ 153,600+

c) Other Related Costs

None identified.

d) Funding Sources and Cash Flow Analysis

The Biology Greenhouse at the University of Toronto Mississauga comprising 134 nasm of a green house space and 143 nasm of header house space, to be funded from Capital Reserves derived from UTM's Operating Budget. Provision has been made in the Operating Budget to fund increased operating costs.

e) Ancillary Projects and Joint Venture Partnerships require Business Plans and Operating Agreements

None identified.

V. Recommendations

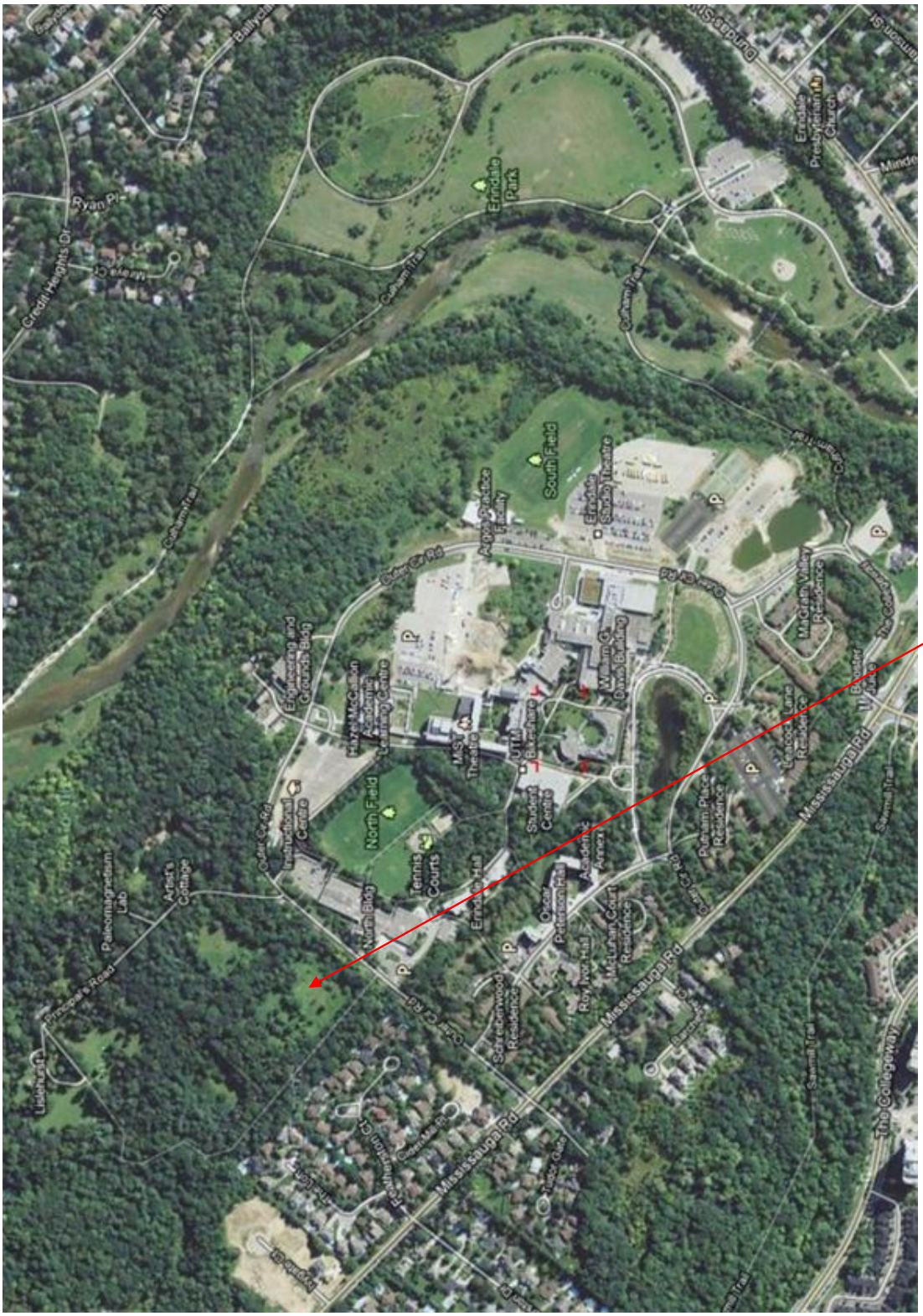
Be It Recommended to the University of Toronto Mississauga Campus Council:

1. THAT the Project Planning Committee Report for the Biology Greenhouse at the University of Toronto Mississauga, dated October 31, 2013, be approved in principle; and

2. THAT the project scope to accommodate construction of the Biology Greenhouse at the University of Toronto Mississauga comprising 134 nasm of a green house space and 143 nasm of header house space, be funded from Capital Reserves derived from the UTM Operating Budget.

APPENDICES:

Appendix A: Areal Campus Photo showing location of the proposed greenhouse
Appendix B: Total Project Cost Estimate (on request to limited distribution)
Appendix C: Operating Cost Estimate (on request to limited distribution)


Proposed greenhouse
South Field
North Field
Tennis Courts
Mississauga Rd
Credit Heights Dr
Ryan Pl
Erindale Park
Prospect Rd
The College Way

UNIVERSITY OF TORONTO MISSISSAUGA

UNIVERSITY OF TORONTO MISSISSAUGA CAMPUS COUNCIL
REPORT NUMBER 1 OF THE CAMPUS AFFAIRS COMMITTEE

SEPTEMBER 9, 2013

To the Campus Council,
University of Toronto Mississauga

Your Committee reports that it held a meeting on September 9, 2013 at 4:10 p.m. in the Council Chambers, William G. Davis Building, at which the following were present:

Dr. Joseph Leydon, Chair
Mr. Nykolaj Kuryluk, Vice-Chair
Professor Deep Saini, Vice-President & Principal
Ms Zoë Adesina
Ms Noura Afify
Mr. Rishi Arora
Professor Lee Bailey
Ms Melissa Berger
Mr. Arthur Birkenbergs
Mr. Jeff Collins
Mr. Paul Donoghue, Chief Administrative Officer
Mr. Warren Edgar
Ms Elaine Goettler
Professor Hugh Gunz
Mr. Hassan Havili
Ms Donna Heslin
Ms Melissa Holmes
Ms Jess Mann
Ms Jennifer Nagel
Mr Mark Overton, Dean of Student Affairs
Ms Judith Poë
Professor Luisa Schwartzman
Professor Jumi Shin
Ms. Amber Shoebridge
Dr. Gerhard Trippen
Professor Anthony Wensley

Regrets:
Professor Amy Mullin, Vice-Principal Academic & Dean
Mr. Moe Qureshi
Mr. Bilal Sandeela
Ms. Soaleha Shams

Non-Voting Assessors:
Ms Christine Capewell, Director, Business Services
Ms Susan Senese, Director, Information and Instructional Technology Services, Computing Services

In Attendance:
Mr. Hamza Ansari, Vice-President University Affairs & Academics, UTMSU

Secretariat:

Ms. Cindy Ferencz Hammond, Director of Governance
Ms. Mariam Ali, Committee Secretary

1. Chair's Remarks

The Chair welcomed new members to the inaugural meeting of the Campus Affairs Committee for the 2013-14 academic year. He introduced Mr. Nykolaj Kuryluk, an alumni governor and Vice-Chair of the Committee; Professor Saini, Vice-President and Principal; and the Committee's administrative assessors, Mr. Paul Donoghue, the CAO and Mr. Mark Overton, the Dean of Student Affairs. The Committee's non-voting assessors were also introduced: Ms. Christine Capewell, Director of Business Services and Ms. Susan Senese, Director of Information and Instructional Technology.

2. Orientation

The Chair and Mr. Louis Charpentier, Secretary of the Governing Council gave an Orientation presentation, which included the following key points[1]:

- The essential role of governance was to provide guidance on the University's long-term strategic directions and to provide active oversight of the University's management;
- Good governance principles began with appropriate disclosure, transparency and clear lines of accountability between governance and administration;
- Governance responsibilities were conducted through a set of committees with clear accountability and delegated authority for advice, oversight and/or approval;
- While each member might be informed by concerns of his or her individual constituency, the expectation was that members would act in the best interests of the institution as a whole;
- Members should commit to participate actively in meetings and attend at least 75% of all meetings;
- Governance was a receiver of proposals and reports from administration and the primary functions of governance were to approve, provide oversight or advice on proposals

The presentation included a visual representation of the governance path of the UTM budget, compulsory non-academic incidental fees, capital projects (level 3) and the establishment of an academic unit (EDU:A or EDU:B). The Chair explained that the Committee was concerned with matters that directly related to the quality of student and campus life. Mr. Charpentier drew members' attention to the handout, *Quick Reference Guide to the Use of Cover Sheets*. He explained that cover sheets were designed to enhance the focus of members on the major elements of proposals and that they were a valuable tool in providing guidance with respect to the responsibilities of the relevant governance body for each item of business.

The Chair gave an overview of the agenda planning process. The agenda planning group , included the Chair, the Vice-Chair and the administrative assessors with support provided by the Secretariat. Agenda planning was a technical process whereby consideration was given to whether an item was ready for consideration.

The Chair invited Mr. Donoghue, Chief Administrative Officer and Mr. Overton, Dean of Student Affairs to present an overview of the Campus and their respective roles as administrative assessors. The presentation outlined senior administrative structures at UTM and administrative assessor priorities for the 2013-14 academic year.[2]

The Chair closed the Orientation presentation with an explanation of *Consent Agendas*. He explained that the intent of the "consent" portion of governance agendas was to streamline meetings, allowing more time for items where more discussion and debate was required and less time for items of a routine nature. Items on the consent agenda would not be given individual consideration unless requested in advance by a member..

In response to a member's question, Mr. Donoghue explained that assessors could be contacted regarding agenda items before the meeting.

[1] A copy of the Orientation Presentation is attached as Attachment A.

[2] A copy of the Assessor Presentation and the Assessor Handout is attached as Attachment B and C respectively.

A member asked if items would take longer to be approved with the new governance structure. Mr. Charpentier responded that items would not necessarily take longer to proceed through governance as consideration of each item would be completed within one governance cycle. Mr. Charpentier also noted that with the current model, Campus Council and its standing committees had additional responsibilities and therefore had increased delegated authority on specific items.

In response to a member's question about Extra-Departmental Units:C (EDU:C), Mr. Charpentier responded that EDU:Cs would be recommended for approved by the Campus Affairs Committee and would proceed to Campus Council for approval; the decision would then be confirmed by the Executive Committee of the Governing Council.

3. Calendar of Business

The Chair referred members to the Calendar of Business, and advised that the document would be updated on the Office of the Campus Council website every Friday; he encouraged members to review the Calendar on a regular basis.

Mr. Charpentier added that, to the extent possible, every item of business planned for governance consideration was included in the Calendar of Business, to maintain the principle of openness and transparency. The Calendar of Business was the framework from which agendas were planned, and was developed through extensive consultation between governance and administration.

4. Revision to the *Policy on Capital Planning and Capital Projects*

The Chair invited Mr. Charpentier to outline the governance path for the proposed revision to the *Policy on Capital Planning and Capital Projects.* Mr. Charpentier explained that in May 2012, Governing Council had approved revisions arising from recommendations of the *Task Force on Governance*. The revisions involved: streamlined consideration of capital planning and capital projects; increased minimum thresholds for consideration by various bodies; the separation of policy and procedure; and strengthened coordination and integration of project review between and among central and divisional offices.

Mr. Charpentier noted that the proposed revision to the Policy increased delegated authority at the campus level as the Campus Affairs Committee, rather than the Planning and Budget Committee, would consider capital projects in the $3 – 10 million dollar range before proceeding to the Academic Board for final consideration. For projects over $10 million, the same process would occur but projects would proceed to the Governing Council following the Academic Board.

He also explained that consideration of capital projects would be divided into two components: all discussion regarding non-financial aspects of the project would be considered in open session, while financial details such as projected total projects costs would be discussed *in camera*. Mr. Charpentier emphasized that in keeping with the governance principles of openness and transparency, once the bids for the project were received and finalized complete documentation would be made publicly available.

5. Date of Next Meeting – Monday, November 11, 2013, 4:10 p.m.

The Chair reminded members that the next meeting of the Committee was scheduled for Monday, November 11, 2013 at 4:10 p.m. in the Council Chamber, William G. Davis Building.

6. Other Business

Professor Saini, Vice-President & Principal noted that this meeting represented a moment of historical significance in the evolution of UTM. He thanked the large number of individuals involved in the planning and implementation of the new governance model. He also thanked all members of the Campus Affairs Committee for being engaged in UTM's governance processes.

The Chair invited all members and guests to remain for a celebratory reception immediately following the meeting to mark the occasion of the inaugural CAC meeting.

The meeting adjourned at 5:45 p.m.

_____ _____

Secretary Chair
September 16, 2013