

Preamble

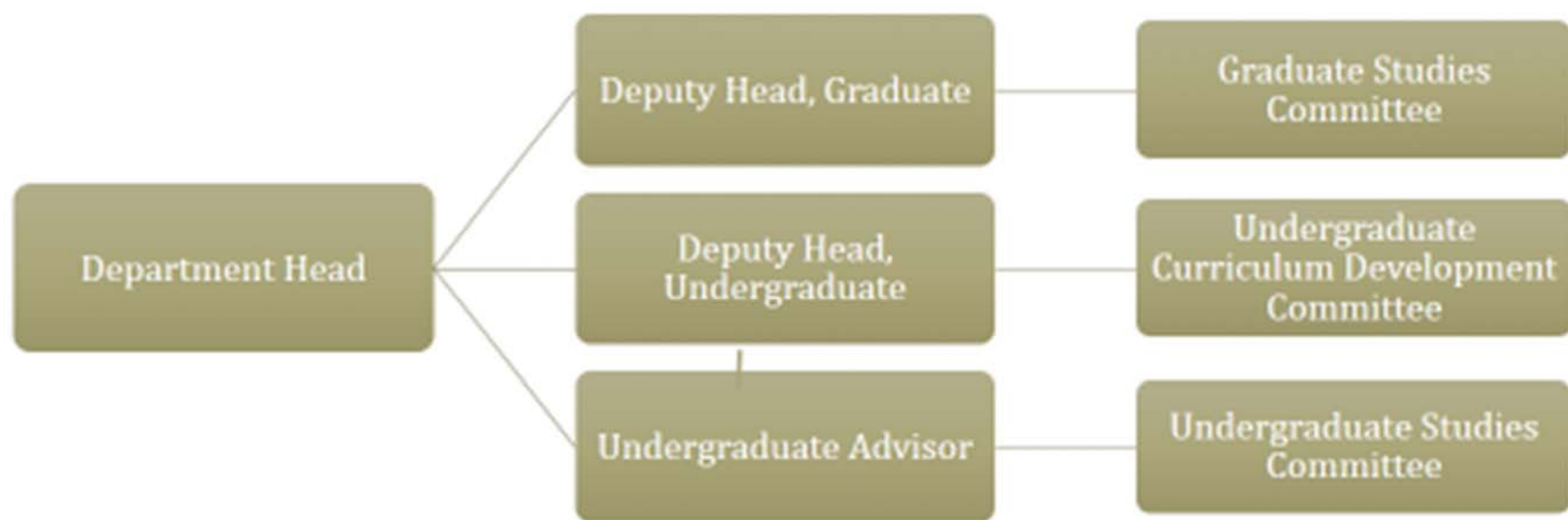
The results of the 2012 Academic Program Review for the Department of Computer Science created two main goals toward which the Department will direct its efforts:

Goal 1: To continue to work toward excellence in the undergraduate program;

Goal 2: To increase research productivity of our faculty members.

In recognition of these goals, an action plan was drawn up and is being realized to address the recommendations of the external review panel. The following pages contain this report in a compact table form for easier inspection. For clarity, the figure below details the organization of the department (including task descriptions) as far as undergraduate and graduate studies is concerned.

Department of Computer Science



Deputy Head, Graduate: Advise graduate students on their programs of study, degree regulations, and degree requirements; act as departmental representative on graduate matters; chair the departmental Graduate Studies Committee; serve as department representative on the Graduate Studies Committees for the Faculty of Science and the School of Graduate Studies; and liaise with the School of Graduate Studies.

Deputy Head, Undergraduate: Serve on the departmental Undergraduate Studies Committee; chair the Undergraduate Curriculum Development Committee; act as departmental representative on undergraduate matters not explicitly delegated to the Undergraduate Advisor; and liaise with other units in the university on undergraduate matters.

Undergraduate Advisor: Advise undergraduate students on their various concerns when they enroll, and as they continue through their programs, including advice on course selections, degree regulations, and degree requirements; review undergraduate program information, including the Undergraduate Handbook, and calendar changes; advise transfer students on waivers or course equivalencies; and chair the departmental Undergraduate Studies Committee and serve as departmental representative on the Undergraduate Studies Committees for the Faculty of Science.

Action Plan

| Goal | Action | Reference to APR | Responsibility | Time Frame |
|---|--|------------------|------------------------------|-------------------------|
| 1. Improve the state of CS undergraduate program | | | | |
| 1.1 Study other departments of Computer Science | Establish Undergraduate Curriculum Development Committee | Rec 4-1 | Head | December 2012 |
| | Study innovation in other CS programs: New courses, new program structures, new program delivery methods, new ACM curriculum | Rec 4-1 | Department, UCDC, UGSC, Head | Academic year 2013-2014 |
| | Study current CIPS accreditation process | Rec 4-4 | Head/Deputy Head/UGSC | April 2014 |
| | Study a co-op work-term option | Rec 4-3 | Department, UGSC, Head | August 2014 |
| 1.2 Study the problems in CS undergraduate curriculum | Develop exit survey (Fluid Survey) of students completing the program | Rec 4-2 | UGSC | April 2014 |
| | Regular exit survey of students completing the program | Rec 4-2 | Head | 2014 - |
| | Develop survey (Fluid Survey) for alumni of our program | Rec 5-3 | UGSC | April 2014 |
| | Regular survey of alumni of our program | Rec 5-3 | Head | 2014 - |
| | Analyze results from exit surveys | Rec 4-2, 5-3 | UGSC, UCDC, Head | 2014 - |
| | Analyze typical student course progression | Sec 4 | UCDC | Academic year 2013-2014 |
| | Develop and perform a yearly survey of CS graduate employers | Sec 4 | UGSC, Head | April 2014 |
| 1.3 Improve CS undergraduate program delivery | Establish position of Deputy Head (Undergrad Studies) | Rec 4-5 | Head, department | December 2012 |
| | Establish course content checklist | Rec 4-4 | UGSC | April 2014 |

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|--|--|-------------------------|---------------------------------|---------------------------|
| | Establish criteria for review of faculty teaching performance | Rec 4-4 | Head | Academic year 2013-2014 |
| | Introduce a departmental teaching award | Sec 4 | Head, deputy heads | Academic year 2013-2014 |
| | Study ways to increase engagement of faculty in the goals of success of the department's undergraduate program: + Improve feedback between students and faculty | Rec 5-2 | University, faculty, department | Ongoing |
| 1.4 Innovate CS undergraduate program offerings | Introduce new course offerings for both core and non-core students with a goal to innovate the curriculum | Rec 4-1 | UCDC, UGSC, Head | 2013 - 2017 |
| | Revise core undergraduate program with a view on what distinguishes our program from others around the country and what could make us unique | Sec 4 | UCDC, UGSC, department | 2013 - 2017 |
| | Develop a streaming model for the new curriculum | Sec 4 | UCDC, UGSC, department | 2014 - 2017 |
| | Increase enrolment in undergraduate courses with a target of 5% increase per year | Sec 4 | UCDC, UGSC, department | 2013 - 2017 |
| | Identify measures to gain efficiencies, e.g., co-offered courses that can be cross-listed | Sec 4 | UGSC | Academic year 2013-2014 |
| 1.5 Advertise CS undergraduate program offerings | Establish a standing marketing and media committee | Rec 3-1 | Head | Academic year 2013 - 2014 |
| | Participate fully in the marketing and communication efforts and initiatives of the Faculty of Science | Rec 3-1 | M&M committee | Ongoing once formed |
| | Work with student society on testimonials and short promotion videos | Sec 3, 4 | M&M committee, student society | 2013/14 |
| | Organize and support outreach activities like "Hackathons", (robot and programming) competitions, contests | Rec 4-1 | Department, student society | Ongoing |
| 2. Increase research productivity of faculty members | | | | |

| Goal | Action | Reference to APR | Responsibility | Time Frame |
|--|--|-------------------------|--|---------------------------|
| 2.1 Invest significant efforts in funding applications | Establish a research committee of faculty (including cross-appointed) to review all outgoing funding applications | Rec 6-3 | Head | Academic year 2013 - 2014 |
| | Invite the chair of the NSERC grant selection committee to give a presentation in the department | Rec 6-4 | Head | February 2013 |
| | Assign mentors to all incoming faculty members | Rec 6-5 | Head | Ongoing |
| | Request NSERC-like CVs from all faculty members on a yearly basis | Rec 6-1 | Head | August 2014 |
| | Organize annual information sessions with the grants facilitation officer of the faculty of science | Rec 9-1 | Dean | Ongoing |
| | Increase efforts to win larger collaborative grants | Rec 6-5 | Faculty, research committee | Ongoing |
| | Investigate ways to improve collaboration between department and ACENET: + Organize information session on ACENET for faculty and students | Rec 3-2 | Head, ACENET members and staff | Academic year 2013-2014 |
| 2.2 Consolidate graduate program | Monitor and encourage progress and growth of the department's graduate program: + Study the possibility of partnering with overseas universities for joint degrees + Consolidate regulations for new MSc program | Rec 5-1 | University, faculty of science, department | Ongoing |
| | Study ways to increase engagement of faculty in success of graduate program: + Distribute workload more equally among faculty members + Increase number of jointly supervised students | Rec 5-2 | University, faculty of science, department, head | Ongoing |
| | Identify co-offered courses that can be cross-listed, update course list | Sec 5 | Deputy head (Grad Studies), GSC | Academic year 2013-2014 |
| | Strengthen the sense of community among graduate students through social events and improvements to graduate student lounge | Sec 5 | Head, deputy head (Grad Studies), department | Ongoing |

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|---|---|-------------------------|--|-------------------------|
| 2.3 Intensify research collaboration within the department and with other units | Study incentives to increase attendance and prominence of departmental seminar series: + Attendance lists + Define minimum requirements of participation for achieving graduation | Rec 6-2 | Seminar chair, head, deputy head (Grad Studies), GSC, department | Ongoing |
| | Establish brown-bag lunches and discussion groups on topics of interest to members of faculty | Rec 6-2 | Head, department | Ongoing |
| 2.4 Increase planning activities | Analyze research strengths and collaboration potential of the department | Rec 6-2, 6-6 | Research committee, head | Academic year 2013-2014 |
| | Formulate a strategic plan for the department | Rec 6-6 | Head, strategic planning committee, research committee, department | Academic year 2013-2014 |
| | Set targets for tri-council funding and provide help for implementation | Rec 6-6 | Head, research committee, department | Academic year 2013-2014 |
| | Develop a long-term plan for faculty renewal with specific target measures on research performance and program enrolment numbers | Rec 7-1 | Head, strategic planning committee | Ongoing |
| 2.5 Advertise departmental research | Highlight faculty members' research successes on website | Sec 7 | Head, M&M | Ongoing |
| | Improve the research website of the department | Sec 7 | Head, M&M | Ongoing |
| 3. Improve internal organization and spatial configuration of department | | | | |
| 3.1 Internal organization | Establish a service award for staff | Rec 7-2 | Head, department | Academic year 2013-2014 |
| | Ensure nominations for university and faculty awards | Rec 7-2 | Head | Ongoing |
| | Review academic performance of faculty | Rec 5-2 | Head | Ongoing |
| 3.2 Spatial configuration of the department | Establish a space allocation committee | Rec 8-1 | Head | December 2012 |

| Goal | Action | Reference to APR | Responsibility | Time Frame |
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| | Develop policies to use existing space most efficiently | Rec 8-1 | Space allocation committee | Academic year 2013-2014 |
| | Establish a "lab clean-up day" to clean/tidy up teaching and research labs so that they look modern and attractive and become an appealing workplace for students | Sec 8 | Head, department | Once a year |
| 3.3 Strengthen sense of community among departmental members | Provide meeting space for undergraduate students in the department | Sec 8 | Head, deputy heads, space allocation | Ongoing |
| | Support the formation of a CS Graduate Student Society | Sec 5 | Head, deputy heads | Ongoing |
| | Organize regular meetings with Undergraduate and Graduate Student societies | Sec 4, 5 | Head, deputy heads | Ongoing |
| 3.4 Review and assess current departmental activities | Hold regular annual retreats of faculty to review current activity and to revise and plan long-term departmental goals | Rec 9-2 | Head, department | Ongoing |
| | Establish Industrial Advisory Board for interaction and outside advice | Sec 9 | Head | 2013-2014 |
| | Meet regularly with the Dean of Science to review progress on this action plan | Rec 2-1 | Head, Dean of Science | Ongoing |

Final Revision: January 16, 2014