

Rec #	Recommendation	Response	Timeline	Verification Measure	Tri-annual	Annual
2.1	<i>There is a clear need to establish or reactivate administrative and committee structures within the Department for dealing with program issues in particular, and for providing effective avenues of communication in general.</i>	Committee <b>structure</b> has been re-established. Minutes / agendas will be on the web.	Oct <b>2003</b> Dec <b>2003</b>	Committee notes / minutes on web (secure part of departmental pages)		X
2.2	<i>The nature of the decision-making process above the level of the Department Head is seen as obscure and contributes to confusion and uncertainty within the Department.</i>	The process of decision making and the decisions taken should be communicated to the department Head and onward to the department in a timely manner.	Ongoing	Decisions made above the department will be communicated in a timely manner to the department		X
2.3	<i>There is an urgent need for a formal strategic planning process within the Department in order to establish a consensus on priorities, particularly with respect to research, over the next five years and beyond.</i>	The department agrees that a <b>formal</b> strategic planning process is required. The department will start immediately on the broad outline of such an academic and research plan so as to have the draft plan available when the Headship candidates come for interviews (April <b>2004?</b> ). The <b>final</b> plan should be completed by September <b>2004</b> with input and leadership from the new Head.	February <b>2004</b> – draft plan available. September <b>2004</b> – final plan available. <b>2005</b> – implement strategic plan.	Draft plan by February <b>2004</b> . Final plan by September <b>2004</b> . Implement in <b>2005</b> Annual reviews in October (how are we doing?)		X
2.4	<i>There is an uneven distribution of research activity over the faculty as well as a developing imbalance towards unpublished contract and service versus fundamental research.</i>	Research is an individual responsibility and the Head encourages all faculty to engage in research. In assessing research achievement, emphasis must be placed on the quality of the research rather than the quantity of research funds accessed. The Department is cognisant on the impact of increased contractual funding to research and believes that fundamental research must be valued and supported in all areas of Earth Sciences, not only in targeted areas.	Ongoing	Research productivity is stimulated across the department		X
2.5	<i>Processes for monitoring and directing of MSc thesis projects are inadequate.</i>	Graduate student supervisory committee of at least two members will be established for all students. The supervising committee will hold a minimum of two meetings per year. Each student will be required to submit to the supervisory committee a thesis proposal before the end of the second semester of study.	Established for new students and encouraged for existing students	Establishment of the committee will be monitored by the Graduate Officer. Student progress reports will be sent to SGS as required. Graduate Officer will retain the accepted thesis proposal on file.		X

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2.6	<i>There is a lack of recognition and inclusion of academic and technical staff in the decision-making process, as well as a lack of management structure within the complement of technical staff</i>	<p>Committee structures, including the Head's Advisory Committee, are re-established. It appears that this refers to administrative (not academic) and technical staff. As we understand the issue, it relates to our User Group structure.</p> <p>The reporting structure for administrative staff is clearly set out in the department organisation chart. Technical staff (with the exception of the Computer Specialist) report through the Chair of the appropriate user group. (see also 2.1)</p>	<p>Department organisation chart to be circulated to all departmental members again.</p> <p>Place chart on our website.</p> <p>Immediate action.</p> <p>The department will hold full departmental meetings (as opposed to faculty meeting) once per semester – first in Winter, 2003</p>	<p>Verify that organisational chart is on the web and up-to-date.</p> <p>Departmental meetings held each semester.</p> <p>Verify annually</p>	X	X
2.7	<i>Although external stakeholders speak highly of Earth Science graduates, there is clear evidence of alarm at the lack of financial support for basic infrastructure in undergraduate programs, which is seen as being in fundamental conflict with the proclaimed first priority of the University.</i>	<p>We agree with this recommendation. Outstanding areas requiring additional support include: (i) upgrade of the student computer lab; (ii) appointment of an additional staff member to support the delivery of the 2<sup>nd</sup> and 3<sup>rd</sup> year teaching program and to oversee maintenance and upgrade of the teaching collection; (iii) acquisition of projection equipment including a departmental laptop(s) to assist with the delivery of lectures; (iv) routine maintenance and acquisition of new student microscopes.</p>	2004 budget	<p>University/Departmental budget includes funds for i) computers, ii) staff support, iii) projection, and iii) sufficient capital funds for microscopes</p> <p>i) done in FY 2003 budget  ii) in budget estimates for FY 2004  iii) done in FY 2003 budget  iv) external (alumni?) fund raising</p>		X
3.1	<i>We recommend that a formal Industry/Government Advisory Group be set up to provide advice and feedback to the Department on curriculum matters as well as other matters than may impact on the industry or the profession.</i>	<p>The department will set up an industry – government Advisory Committee with specific terms of reference. The exact make up of the committee is to be decided (9 members?). There are many benefits seen to such a committee.</p> <p>The department should hold an annual open-house using the committee to promote the departmental activities.</p>	<p>January 2004- set number of members and constituencies.</p> <p>February 2004 – invite members.</p> <p>March – First meeting.</p>	<p>April 2004: Membership list provided to the dean.</p> <p>March 2004: First meeting held.</p> <p>Annually: one full meeting and one executive committee meeting per year.</p> <p>Open House during Fall M&amp;E/ <b>CIM</b></p>		X
						X

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3.2	<i>We recommend that the Department institute some longer-term (2-3 year) planning of course offerings especially at the 4000 level to minimize delays in completion due to the non-availability of courses.</i>	<p>We agree with this recommendation. We recommend that a first draft of teaching assignments be published by April of each year, and confirmed by the end of June. Furthermore, we see an advantage in assigning teaching loads for a three-year period because this can influence faculty to invest greater effort in the design or re-design of their assigned courses, especially courses outside of their own sub discipline. Design of a three-year teaching schedule would require greater input by individual faculty into the planning process so that the Head could better anticipate any future commitments (e.g., sabbaticals) that affect the schedule. Obviously, some flexibility in the assignments would have to be retained for unforeseen commitments of faculty.</p> <p>Consistent with a three-year teaching plan, we recommend that lecturers be rotated on a regular basis (e.g., every three years) through the first-year and service courses. This would likely be beneficial with regard to reducing "burnout" of faculty who are assigned teaching outside of their own sub discipline, and rotation would give more faculty an appreciation for teaching outside of their own specialties and help to share the load.</p> <p>With regard to the APR recommendation that 4000 level courses need specific attention, we suggest that the department commit to offering all of the 4000-level courses at least every second year (many 4000-level courses are offered every year).</p>	April 2004	A three-year teaching schedule available for faculty comment by April 2004, in final form by June 2004. A resolution by the Head, approved by faculty by April 2004 that commits the department to rotate lecturers though first-year and service courses on a three-year cycle, and to offer 4000-level courses at least every second year.		X
3.3	<i>We recommend that the Department redesign The Solar System course and investigate the possibility of adding new service courses that do not need prerequisites in calculus. This is often done in other universities and has been found to be a good vehicle to promote the study of Earth Science which in turn will lend to a bigger pool of students for recruitment to Earth Science programs.</i>	<p>We agree with this recommendation. In November, 2003, we <b>recommended</b> changes to the prerequisite needed for the Solar System (2150) course in order to make this course more widely available. We believe that the calendar description of 2150 is sufficiently flexible to allow a lecturer to incorporate new developments in planetary exploration, thereby keeping the course up-to-date and of interest to a broad audience.</p> <p>The Department has already approved a proposed new service course (ES2916, Natural Hazards on a Dynamic Earth) that should attract wide interest from the university community.</p> <p>The Department is considering an additional service course to be offered after implementation of ES2916.</p>	<p>Already done.</p> <p>Fall 2004</p>	Addition of ES2916 to the 2004 University Calendar (accepted by Faculty of Science on Dec. 3, 2003; for February 2004 Senate approval).		X



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3.6	<p>Quote from text of section 3.8 that relates to recommendation 3 (vi): <b><i>"In the opinion of the Committee, too little is specified in general for the Honours and General programs."</i></b></p> <p>Quote of recommendation 3 (vi): <b><i>"We recommend that formal streams within the Earth Science programs be eliminated and that the Department offer two degrees: a broadly-based BSc in Geology, and a BSc in Geophysics, high-level mathematics courses such as MATH 3202 and MATH 3260 should be required"</i></b></p>	<p>We agree with this statement. There is a curriculum review process already in progress in the Department to address the issue of the number of specified credit hours in our program. We believe that our degree program should specify additional required courses in several sub disciplines beyond the 2000 level. Our Self-study Report suggests increasing the number of specified credit hours from 17 (our current level) to 41 hours. These changes, which are under active review, will ensure that students complete courses that provide <b><i>"a broad undergraduate Earth-science background"</i></b> as recommended in the APR report.</p> <p>We agree with only part of this recommendation. Regarding the first part of this recommendation, there are currently no formal streams in the Department. The informal streams described in our Student Handbook provide a useful guide for students when selecting optional courses, especially in their senior year, and they delineate thematic groups in the Department which can be useful for strategic and curriculum planning purposes. We therefore intend to retain, but update, the informal course lists that we use to advise students.</p> <p>The APR report also recommends that we <b><i>"offer two degrees: a broadly based BSc in Geology, and a BSc in Geophysics"</i></b>. Although we recognize the value of having a more quantitative undergraduate program in geophysics, we also recognize the value of our current program. Comments over the years from the petroleum industry argue strongly for the value of undergraduate education that includes both Geology and Geophysics. Such students are more attractive to the <b>petroleum</b> industry than more narrowly specialized students. We believe that it is in the best interest of our students to continue offering a single Earth Sciences degree. We also believe that it will be possible to offer a more quantitative geophysics program by redefining our Joint Programs with the Department of Physics and Physical Oceanography.</p>	<p>Complete curriculum review by Nov. 2004</p> <p>No specific changes except to complete curriculum review by Nov. 2004</p>	<p>Submit calendar changes with new specified courses by Nov. 2004</p>		<p>X</p>



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3.9	<i>We recommend that the Department not consider alternative delivery of courses in any formal way. However, the Department is encouraged to investigate imaginative ways of offering CPD courses perhaps together with other units or organizations</i>	The department does not accept the recommendation that we not consider alternate delivery of courses in any way. This is too restrictive. Indeed, we see potential with our current resources for Continuing Education offerings and think that these should be pursued vigorously. We also think that some of the new service courses that we are in the process of developing could be offered by distance education. However, these activities should not interfere with the delivery of our undergraduate and graduate programs.	Sept 2004: CE course(s) being considered for offering. January 2005: Decision as to the viability of offering any of our service courses as DE.	Is the department offering any CE and / or DE courses in the current academic year?		X
3.10	<i>We recommend that the planned changes to the number of specified credits as mentioned in the Self Study Report and discussed in Section 3.6 take into consideration the alternate route to professional registration through content based registration rather than an Honours degree.</i>	We agree with this statement. We will increase awareness of this option as part of advice to students provided from our Undergraduate Officer and by amending our Student Handbook posted on our website.	April, 2004	Amend the website by April, 2004		
4.1	<i>We recommend that the Department pursue proactively its goal of increasing graduate student enrolment to 75 by the end of 2006, but with the concomitant goal of increasing the ratio of PhD to MSc students over this period.</i>	We recognize that increase in graduate student numbers in our Department must be linked to infusion of new funding in support of student projects. Projects related to PPSC and INCO will assist in the increase of graduate student numbers, however, additional SGS baseline funding is required. In addition to fellowship funding, additional research funds are required to sustain new research projects for both PhD and MSc projects	PPSC just started. INCO to start 2004/2005.	A number of new graduate students are being accepted to work on new projects to be funded by PPSC  Increased SGS Baseline funding is in place.		X  X

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4.2	<i>We recommend that the Department implement a comprehensive monitoring program for graduate students. In the case of the M.Sc. program, mechanisms should be established for constructive feedback following submission of the thesis proposal and to track student progress on a yearly basis.</i>	See comments on recommendation 2.5. We recommend that the SGS ensures that thesis examination reports are processed in a timely fashion, not to exceed six weeks.	Ongoing	Timely responses from thesis examiners through SGS	X	
4.3	<i>We recommend that the number of required credit hours for the MSc program be increased to 12.</i>	We disagree with the recommendation and wish to retain the 2 course requirement (6 credit hours) (consistent with other Canadian MSc requirements), but recommend that these courses are broadly based and offered <b>annually</b> .	September 2004	Graduate course offerings reviewed		X
4.4	<i>We recommend that all graduate students be required to give at least one public presentation within the department during their graduate program.</i>	There is no departmental consensus. Further discussion required on the following: 1) Public presentation to count as a 1 credit course ( <b>Pass/Fail</b> ). 2) Public presentation before thesis submission (no evaluation). 3) Departmental regulation ( <b>Pass/Fail</b> ).	September 2004	According to the final departmental agreement (approved at March 2004 Faculty meeting and sent to SGS)		X
4.5	<i>We recommend that a Graduate Program Committee be struck, chaired by the Graduate Coordinator, with representation from a wide spectrum of disciplines within the Department.</i>	The Graduate Studies Committee is working. There is no position termed Graduate Coordinator, instead the Chair is elected by the ASMs on the Committee. The Deputy Head is ex-officio on the Committee.	Oct. 2003. Committee meets monthly and includes ASMs (4), graduate students (2), Deputy Head, Student Officer	Notice of meetings, notes on the web. Graduate matters brought regularly to the faculty committee for furtherance.	X	
4.6	<i>We recommend that the Graduate Program Committee be responsible for overseeing and approving all recommendations to the Faculty of Graduate Studies for the admission of graduate students to the graduate programs in the Department.</i>	The Student Officer will continue to post all applications that meet minimum standards (SGS) for acceptance on the secure website.	Jan. 2004  Sept. 2004	Files for applicants who are acceptable academically and who have a supervisory committee identified will be sent to the Graduate Studies Committee and on to the Head. Files received from acceptable students will be posted on the secure website for ASMs to record their willingness and (financial) ability to supervise.	X  X	

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4.7	<i>We recommend that the Graduate Program Committee establish fair and equitable criteria for the awarding of graduate funding, teaching assistantships and other scholarship support to students.</i>	<p>The Graduate Studies Committee will oversee the recommendations for SGS baseline to eligible students following the SGS established criteria re GPA.</p> <p>The Graduate Studies Committee will recommend nominees for the award of Graduate Scholarships in the department.</p> <p>The assignment of teaching assistantships is a Human Resources matter and is not assigned to the Graduate Committee. This will continue to be administered by the IA, Head and appropriate ASM for the course.</p>	<p>Jan 2004</p> <p>Jan 2004</p>	<p>The SGS baseline will be made available for recommendation to the Graduate Committee.</p> <p>The list of scholarships to be awarded annually will be made available to the Graduate Committee</p> <p>No different action on TAs.</p>	X	X
4.8	<i>We recommend that the Graduate Program Committee be given the authority to award graduate funding, teaching assistantships and other scholarship support to students in the graduate program.</i>	<p>Award of Graduate funding and scholarships is the responsibility of the Dean, SGS on the recommendation of the Head.</p> <p>The Head will seek and receive recommendations from the Graduate Committee.</p> <p>TAs are available to both <b>u/g s</b> and <b>grads</b>. This falls in the HR mandate and is the responsibility of the Head.</p>	Jan 2004	<p>Bead will seek recommendations from the Graduate Committee on a semester by semester basis according to the established criteria.</p>	X	
4.9	<i>We recommend that the Department undertake a market study to determine the feasibility of a fee-based graduate program prior to committing resources to develop such a program.</i>	We agree, but this will require additional funding.	September 2004	A feasibility study has been undertaken to determine the market demand for any new <b>course-based MSc</b> program.		
5.1	<i>We recommend that the University provide clear guidelines on whether the new Chairs in the PPSC are additions to the current staffing of the unit or replacements for future retirees, before the selection process for the Chairs begins.</i>	<p>The PPSC positions have been given guidance by the senior administration.</p> <p>All requests for retirement replacements will be treated as requests for positions for which a full justification in terms of current academic needs will be required. This is independent of the PPSC positions.</p>	Sept 2004	<p>Positions lost in the soft rock area over the past decade will be restored by the PPSC positions.</p> <p>The balance of faculty deployment by sub-disciplines should be reviewed annually.</p>		X
5.2	<i>We recommend that the Department encourage wider participation of faculty members in publication of their research activities in international journals.</i>	<p>Publication of research in peer adjudicated journals is the standard measure of excellence that the department strives for.</p> <p>The new faculty members should re-invigorate our research publication record.</p>	Jan 2005	<p>Refereed publication increases commensurate with the new faculty and graduate students.</p> <p>This should be seen in the departmental annual reports.</p>		X

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5.3	<i>We recommend that the Department establish mechanisms to ensure that the limited central funds for the support of graduate students are used to optimize the research activities of as many departmental researchers as possible, regardless of the availability of external funds to support research</i>	This is already the case with the caveat that all SGS baseline funding must be partially matched by a supervisory component. The department does not intend to establish a "two-tier" funding support system based on the supervisor's area. The only criterion for award of SGS baseline must be the academic excellence of the student. Whether or not fully funded students from external sources qualify for SGS baseline will be discussed by the Graduate Studies Committee. At present, these graduate students do not receive SGS Baseline support.		No different action recommended.  The SGS baseline funding will be in the initial responsibility of the Graduate Committee (see 4.7 above). The graduate student funding policy will be forthcoming (April 2004).	X	X
5.4	<i>We recommend that the Department arrange a series of meetings or retreats, as soon as possible, to establish a coherent long-term plan for the Department. This plan should include identification of the areas in which the Department intends to develop new strengths, which areas can potentially be strengthened through the pursuit of further external funding, and which could be filled through the replacement of retiring faculty without unduly compromising the existing strengths of the Department.</i>	The department has agreed that a long term strategic plan is a high priority (see 2.3). A retreat was held in early January 2004 so that a draft strategic plan can be available for the headship candidates when they come for interview (March 2004?). The departmental strategic plan is to be completed in draft by March 2004 Final strategic plan adopted by department in September 2004	Jan 2004  March 2004  September 2004	Strategic planning retreat is held in Jan 2004   Annual retreats held thereafter to update the plan.		X
	<i>We recommend that the Department Head reactivate an effective advisory committee structure within the Department and promote the involvement of all Department members in the decision-making processes.</i>	The committee structure is in place. (see 2.1 and 2.6)	Oct 2003	Committee structure is in place and working (meeting at least monthly).	X	X

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6.2	<i>We recommend that the complement of staff in the Departmental General Office be increased by one and that one additional support person be assigned to the area of equipment maintenance and repair.</i>	<p>The department places the highest priority for any new staff on an IA position to assist in the development, conduct and maintenance of the 2<sup>nd</sup> and 3<sup>rd</sup> year teaching laboratories. Such a position is now 8 month contractual.</p> <p>We recommend that in order to maintain continuity and quality in the delivery of the labs, other sources of funding be found for the remaining four months.</p> <p>We intend in the 2004 budget to advance the case for this to be an 8 month recurrent position.</p>	Feb 2003	An IA position (8 month) is established to assist in the development, conduct and maintenance of the 2 <sup>nd</sup> and 3 <sup>rd</sup> year teaching laboratories.		X
8.1	<i>We recommend that the infrastructure requirements of relevant undergraduate programs be included in any future negotiations for external research funding from industry and that avenues should be explored for targeting some fraction of the funding accordingly.</i>	<p>Most industry funding is for specified research goals and does not allow undergraduate infrastructure costs. However, many undergraduate functions can be supported indirectly from a stronger research infrastructure.</p> <p>The proposed Advisory Committee may be able to assist in building funding to maintain the teaching equipment and infrastructure.</p>	March 2004	The Advisory Committee can provide advice on how to secure funding from industry or foundations to assist in supporting the undergraduate teaching infrastructure.		X
8.2	<i>We recommend that any irregularities in reporting through the administrative structure above the Department level be resolved without delay.</i>	Already covered in the above sections.		See above.		