

**University of Windsor
Senate**

***5.5.4: Undergraduate Program Review Annual Status Reports**

Item for: **Information**

Forwarded by: **Program Development Committee**

Background

- As publicly funded institutions, Ontario universities are mandated by the Government to undergo a cycle of program reviews for the purpose of quality control and accountability.
- The Undergraduate Program Review Process operates on a seven-year cycle and is part of a larger process of quality assurance that was mandated by the government and supervised by the Council of Ontario Universities through the Undergraduate Program Review Advisory Committee (UPRAC) of the Ontario Universities of the Ontario Council of Academic Vice Presidents (OCAV). The Undergraduate Program Review process is being phased out and replaced by the Institutional Quality Assurance Process (IQAP) (combining undergraduate and graduate program reviews) which was developed in accordance with the COU's Quality Assurance Framework. As of Fall 2011, the Ontario universities' Quality Council is responsible for reviewing, auditing and approving all new undergraduate and graduate programs and new cyclical reviews.
- Some of the information contained in the UPR annual status reports may seem outdated since these reports provide a historical look at the department's actions over a review cycle, showing a progression of changes over the years.

Undergraduate Program Review Annual Status Reports

English (pg. 2)

General Science (pg. 5)

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Physics (pg. 14)

New UPR Cyclical Review (IQAP)

3rd Annual Report

New UPR Cyclical Review (IQAP)

4th Annual Report

UNIVERSITY OF WINDSOR
UNIVERSITY PROGRAM REVIEW (UPR)
REPORT ON: ENGLISH
UNDERGRADUATE PROGRAMS
 April 2014

EXECUTIVE SUMMARY

This review covers the undergraduate programming offered by the Department of English Language, Literature, and Creative Writing. However, to provide context, some information and recommendations on the area's graduate programs have also been included.

Review Preparation

In preparing this document, the Program Development Committee reviewed the following: English's Self-Study (SS) (2012/13), the report of the external reviewers (ER), and the response from the Department Head, and the response from the Dean of the Faculty of Arts, Humanities and Social Sciences to the above material. The external reviewers were: Dr. Dennis Denisoff, Professor, English Department, Ryerson University, Dr. Christina Simmons, Associate Professor, History Department, University of Windsor, Dr. Marjorie Stone, McCulloch Chair in English, English Department, Dalhousie University.

Undergraduate and Graduate Programs

At the undergraduate level, the Department offers a General BA in English Language and Literature, an Honours BA in English Language and Literature, and an Honours BA in English Literature and Creative Writing. Students also have the option of combining their Honours English Language and Literature or their Honours English Literature and Creative Writing major with a major from another discipline.

The English Department is also a partner in the delivery of the new Digital Journalism programs. Among other combinations offered by other departments, students may complete a Combined Honours BA in Digital Journalism and English Language and Literature or a Combined Honours BA in Digital Journalism and English Literature and Creative Writing.

The Department offers a Minor in English Language and Literature, as well as Major and Minor Concentrations for the Bachelor of Arts and Science.

At the graduate level, the Department offers a Master of Arts in English with two fields: Language and Literature and, Creative Writing and Language and Literature. For the latter, students focus on an independent creative writing project. For the Language and Literature field, students elect to pursue the thesis option or the course work option.

Enrolments

Undergraduate

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
Undergraduate Full-Time	331.35	375.50	359.20	368.88	327.91
Undergraduate Part-Time	52.75	46.20	53	37.74	49.19

Graduate

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
MA Full-time	24	24	15	21	28
MA Part-Time	0	0	0	1	0

Human Resources

Faculty/Instructors- English has 14 Faculty Members in Total

Tenure/tenure-track faculty	14 (1 is currently acting as Assistant Provost, Centre for Inter-Faculty Programs; 1 is a bridged position)
Limited Term Appointments	1
Faculty members involved in graduate program delivery	14

Full/Part-time Staff

Secretary to the Head	1
Secretary	1

FINAL ASSESSMENT REPORT (with Implementation Plan)

Significant Strengths of the Programs

The Department has highly committed instructors, dedicated to providing a top-notch undergraduate education and bringing literature and creative writing to life for students inside and outside of the classroom, and to the broader Windsor-Essex community through events such as Bookfest. Its flagship program in Creative Writing, its successful Writer-in-Residence program, and its innovative practicum courses in editing, publishing and hypertext are among several initiatives that distinguish the Department from similar programs at sister institutions.

Opportunities for Program Improvement/Enhancements

The External Reviewers noted that the Department should reconsider programming focussed on historically organized literary survey courses, particularly in the first year. Although this is how English programs have traditionally been organized, the external reviewers note that an increasing number of English programs in Canada are moving away from this program model/structure and encourage the Department to consider shifting requiring first-year courses in contemporary or modern literature at the first year level, which would speak more to the department's diverse student population, rather than focussing on introductory historical literary survey courses. Other areas for improvement or enhancement are identified in the recommendations.

IMPLEMENTATION PLAN

Recommendations (in priority order)

(Final recommendations arrived at by the Program Development Committee, following a review and assessment of the External Reviewers report, the Head's response and the Dean's response.)

1. That the Department review its undergraduate program requirements with a view to incorporating first year course requirements focussing on literature from diverse countries/groups, in light of current practices at other Canadian universities and the fact that, as the Self-Study Brief emphasizes, Windsor is Canada's 4th most multicultural city; and ensure program requirements are streamlined and course offerings rotated on a consistent basis to ensure diversity of choice and timely completion for students.

Agents: Head, Department Council

Completion by: Fall 2017

2. That the Department consider growing graduate programming, perhaps through the creation of a course-based MA and/or by expanding in new areas. *[Growth of the graduate program could benefit the undergraduate program.]*

Agents: Head, Department Council
Completion by: Fall 2017

3. That the Department work with the Dean to review its role in providing general instruction in English writing and composition (26-100), perhaps restricting enrolment to non-FAHSS students and thereby reducing the number of sections required, particularly in light of the requirement that all students enrolled in programs in the Faculty of Arts, Humanities and Social Sciences must complete Foundations of Academic Writing I and II.

Agents: Head, Department Council
Completion by: Fall 2015

4. That the Department continue its efforts to reduce the number of committees, consolidate administrative responsibilities, and update its dynamic, re-designed website which serves as an effective recruitment tool.

Agents: Head, Department Council
Completion by: Fall 2015

5. That the Department continue its efforts to refurbish event space and enhance computer lab facilities for students and faculty.

Agents: Head, Department Council
Completion by: Fall 2016

6. That the Department review, in consultation with the Centre for Teaching and Learning, its program and course learning outcomes and their application to:

- 1) verify the presence of a comprehensive approach in their development, *i.e.*, one that demonstrates with a degree of transparency the development of the various learning outcomes, from introduction to mastery, in similar courses from first year to fourth year; and
- 2) ensure learning outcomes are consistently applied in multi-section courses.

Agents: Head, Department Council, Centre for Teaching and Learning
Completion by: Fall 2018

[PDC looks at recommendation 6 from the external reviewers as taking current learning outcomes to another level. PDC notes that the Department has established program and course learning outcomes and notes that this next level review could serve as a model for other Departments that will soon undertake this exercise, with the assistance of workshops coordinated by CTL.]

UNIVERSITY OF WINDSOR
PROGRAM DEVELOPMENT COMMITTEE
UNDERGRADUATE PROGRAM REVIEW (UPR)
THIRD ANNUAL STATUS REPORT ON: GENERAL SCIENCE
May 2014

Recommendation 1: That the low enrolment programs be deleted, as planned (BSc Science, Technology and Society, Concurrent BSc/BEd, Concurrent BSc/BEd/ECE, Concurrent BSc (General Science)/Medical Laboratory Science diploma). Students currently enrolled in these programs will be permitted to complete the program.

Agent: Dean, Program Coordinator

Completion by: Fall 2011

Actions Taken 2010:

Admission to the programs has been terminated effective Fall 2011. The progress of students registered in the programs is being monitored and they will be permitted to complete their respective programs.

PDC recommended actions to be further taken (2011):

PDC notes that this recommendation has been satisfied.

Recommendation Satisfied (2010-2011)

Recommendation 2: That the Faculty introduce a four-year Honours Science "Non-major" program option, and that careful consideration be given to the name of the program.

Agent: Dean, Program Coordinator

Completion by: Fall 2011

Actions Taken 2010:

A preliminary version of a four-year Honours Science "Non-Major" program option has been completed and it is anticipated that a proposal for the program will be submitted to PDC during the 2011 Winter semester. A tentative name, "Honours Science" has been assigned to the preliminary version of the program.

PDC recommended actions to be further taken (2011):

PDC commends the area on its efforts to meet this recommendation and looks forward to receiving the proposal for a four-year BSc (Honours Science) program.

Actions taken 2011-2012:

The preliminary design of the program – its purpose and target audience, plus its structure - is being re-examined. This is being done to ensure that it fits appropriately with other developments under consideration in the Faculty of Science: a) The feasibility of a common first-year structure for four-year Science programs, to aid students in selecting and transitioning into majors or double-majors; and b) The development of a Health Science program. The role of, and potential student pool served by, a four-year "non-major" Honours Science program will likely change in relation to these developments, as would the structure and requirements of the program. Design alternatives are being considered in parallel with the above-mentioned developments.

PDC recommended actions to be further taken (2013):

PDC notes that the possible creation of a four-year Honours Science program is being reconsidered in light of new developments within the Faculty, including establishing a common first-year curriculum and the possible development of a Health Science program. PDC looks forward to next year's report on the viability and appropriateness of a four-year Honours Science program in the context of other programmatic initiatives in the Faculty.

Actions taken 2013:

With the change through two Associate Deans this recommendation has been on the back burner. While it would not be difficult to set a program (basically it looks like a double major, but students have a bit more leeway in courses), there is no obvious benefit in serving the students upon reviewing transcripts of students from two separate years who are in the 3 year BSc General.

Of more importance than a four year Honours [General] degree is the newly introduced Bachelor of Health and Biomedical Sciences, which is currently being prepared for IQAP review after approval in both Chemistry and Biochemistry, and Biological Sciences.

After a review of two separate years of General Science students we find that about 40% of the General Science students transfer to other programs (about 2/3 of those to Biochemistry or Biology, the rest to assorted areas), about 30% graduate with a degree in General Science (and about half of those go on to finish a four year honours degree following), about 20% were in progress and just under 10% had been required to withdraw. Of the group of students considered (75 of 136 students enrolled in Fall 2009, and 59 of 114 students enrolled in F2011) nearly all of the students who were performing well (>7.5 GPA) were transferring to Honours programs. Only one or two graduated with the 3 year general and did not continue to other degrees at Windsor. The majority of students in the program, from consideration of their transcripts and GPA information, were weak in science in particular, and often weak in general. It seems that the students are very well served by a three year general degree. Those who can, transfer to honours degrees, and those who are unable to manage an honours degree have a route to graduation. The RTW numbers were reasonably low which was also good news, as this is the last chance degree in the Faculty of Science. It would certainly be a mistake to dispose of the three year degree as it serves students well. The benefit of a four year "general" Honours degree in Science is certainly not clear, as its purpose can be served by the Combined Honours program (for students who are undecided in two areas of science study), the Bachelor of Arts and Science or Combined Honours program (for students who are undecided in an area of science and an area of arts, humanities or social science, or simply transfer to a regular stream Honours degree.

Based on this analysis the Faculty of Science does not wish to act upon this recommendation and we deem that the recommendation should be withdrawn.

PDC Comments:

PDC thanks the area for its update and concurs that the recommendation should be withdrawn.

Status: *ahead of target* *on target* *behind target* X *recommendation withdrawn.*

Recommendation 3: That the Faculty retain the existing three-year BSc (General Science) program, but not admit to it from high school.

Agent: Dean, Program Coordinator

Completion by: Fall 2011

Actions Taken 2010:

Enrolment data for the General Science Program during the period Fall 2001 to Fall 2011 are being analyzed to determine the possible impact of eliminating General Science as an entry point to the University of Windsor for high school applicants. At present, discussions are being held with the Associate Director, Registrarial Services regarding this recommendation.

PDC recommended actions to be further taken (2011):

PDC looks forward to hearing the results of this analysis and of discussions with the Office of the Registrar.

Actions taken 2011-2012:

Prior analysis results did not carry forward through the transition in the Associate Dean's office. New analysis is underway to examine the program transition and program completion paths followed by students who enter the General Science program from high school. Also, see Recommendation 5.

Informal discussions with current students and recent graduates, plus discussions with prospective students at recruitment events including the Ontario Universities Fair, indicate that continuing first-year intake into this program is considered attractive. We remain steady with a first-year intake in the low twenties each year. It gives undecided students an opportunity to arrive at the University of Windsor and transition into an appropriate Science program once they encounter first-year Science courses. The merit of these arguments will be tested

once the new analysis is completed. The value of this pathway may also change, should common first-year structures be developed for the Science programs, or when a four-year “non-major” Science program becomes available, so we will continue to monitor and assess the value of this program to first-entry recruitment into Science.

PDC recommended actions to be further taken (2013):

PDC notes that retaining or discontinuing first-year intake into the General Science program will depend on the outcome of discussions on a common first-year curriculum for Science students and the possible development of a four-year Honours Science program. PDC requests that the area submit a more detailed report next year on whether students should be admitted directly into it from high school, including an analysis of program transition and program completion paths of students that have been admitted directly into first-year of the General Science program from high school.

Actions taken 2013:

We continue to discuss a common first year curriculum. The problem is that we need three or four common curricula. One for Health Sciences (which has basically been introduced through the BSc HBS program), one for computational sciences (computer science and math), and one for Physical Science (which encompasses a blend of the other two) and finally, one for the Ecological Sciences. This is hardly a common curriculum in first year. The disparate areas of expertise required to move forward in the vastly different disciplines reflected in a Faculty of Science have continually pushed us up against this barrier. Discussions are still ongoing.

There is merit in retaining the BSc[General] as an entry point to the University as this is the only uncommitted program in Science. Students are well counselled in their educational choices and options for the future. The bulk of the students in the program look like a blend of Biological Science (~60%) and Chemistry and Biochemistry (~40%) and it may be that these students will be well served in entry to the four year Honours Bachelor of Health and Biomedical Science. Still, there is a need for the three year degree entry point.

Having given serious consideration to this recommendation, the Faculty of Science does not wish to act upon it, and we feel that the recommendation should be withdrawn.

PDC Comments:

PDC thanks the area for its update and concurs that the recommendation should be withdrawn.

Status: *ahead of target* *on target* *behind target* X *recommendation withdrawn.*

Recommendation 4: That the Faculty improve general support and advising procedures for the General Science students.

Agent: Dean, Program Coordinator

Completion by: Ongoing

Actions Taken 2010:

Last summer, General Science students were contacted by email and invited to visit the Office of the Dean of Science to meet with an Academic Advisor and discuss their overall academic plans and course selections for the Fall 2010 semester. A similar invitation was sent to students in October 2010. The email initiative has been successful and has resulted in increased numbers of students receiving Academic support. This communication with the General Science students will be continued. Information on the type of support required by the students is being obtained during the counseling sessions.

PDC recommended actions to be further taken (2011):

PDC notes the area’s efforts to meet this recommendation and encourages it to continue them.

Actions taken 2011-2012:

Outreach and follow-up efforts from the Academic Advisor and the Office of the Dean of Science have intensified on several fronts: email communication with current students through mailing campaigns and invitations included in most direct correspondence with individual students; verbal communication at recruitment and orientation events; and most recently, the great availability and quality of academic advising is featured as an important element of the program in the new print material for recruitment. The proportion of students coming

in for counseling with the Academic Advisor, and the frequency with which they come in for counseling, has increased considerably.

PDC recommended actions to be further taken (2013):

PDC commends the area on its efforts to increase support for advising of General Science students. PDC notes that, if it is not already doing so, the area should clearly advise students of the opportunities and limits of a three-year general science degree in terms of future employment and graduate studies opportunities.

Actions taken 2013:

Efforts to engage General Science students have increased. Walk in appointments are encouraged. Appointments may also be specifically scheduled by phone or email. In some cases, simple advising is even handled by email to alleviate the need for the student to visit the office on a straightforward matter.

Students are always advised of options open to them when they come in for advising. In particular planning for success in the 3 year program with an eye to moving into a four year Honours program is always enunciated. Consideration is given to discussing employment and future study opportunities. All student requests are handled in a timely manner and records of visits are kept in active student files that are secured and well managed.

With the appointment of Dr. Dutton as Associate Dean there has been significant improvement in the work flow and advising flow within the Faculty office. We will continue to report on our efforts to support and advise the General Science students.

PDC Comments:

PDC notes the area's efforts to meet this recommendation and looks forward to next year's report.

Status: *ahead of target* X *on target* *behind target* *recommendation satisfied.*

Recommendation 5: That the Faculty develop initiatives to improve inclusion of General Science students in the life of the Faculty.

Agent: Dean, Program Coordinator

Completion by: Ongoing

Actions Taken 2010:

Last "Welcome Week" (September 2010), a separate session was held for General Science students. During the sessions, twenty-nine students met with the advisors for the program and were provided with information regarding the program and the Faculty of Science. A separate session for General Science students will be part of future "Welcome Week" activities. An informal gathering of General Science students is being planned for the Winter 2011 semester. Science Faculty will be asked to participate in the informal session and students will be provided the opportunity to discuss matters of concern.

PDC recommended actions to be further taken (2011):

PDC notes the area's efforts and looks forward to a report, next year, on the outcome of the informal gathering and on additional new initiatives aimed at improving the inclusion of General Science students in the life of the Faculty.

Actions taken 2011-2012:

We held a General Science reception for students in April 2011. It was sparsely attended although the interaction with the students who did attend was excellent. The approach was changed for the 2011/2012 academic year to try and increase participation. A pizza lunch for General Science students was held in the Fall semester. This event was better attended than the reception of the previous year, but the students who attended explained that it was a challenge to fit any event into their busy schedules. A greater proportion of General Science students are in non-conventional situations than in most programs; many have other work or family obligations, or do not live close enough to campus to attend events outside of classes. In an attempt to include all General Science students (e.g. full-time, part-time, those completing their degree through distance education), we decided to change our approach again. We held a draw in which students dropped off a ballot at the Faculty of Science office or returned it through email to win a substantial prize (including a computer bag,

portfolio, travel mug and degree frame). A great number of students participated, and although the effects were indirect, it appeared to be successful in better connecting General Science students to the Faculty. It brought more students into the office to meet the staff and advisors, and gave them a much better sense of the office as a friendly, collaborative place that is open to them. It also gave an opportunity for personal responses to the email ballots, giving an "unofficial" point of personal connection with the remote students.

Students are emailed on a regular basis and encouraged to speak with the General Science advisor in person or via email to address any program questions they may have (see Recommendation 4). When they come in for an appointment they are given a General Science T-shirt or one of a variety of Faculty of Science items, based on prior visiting history. This has greatly increased the interaction between the General Science students and the Faculty of Science office and advisor and has helped to make General Science students feel welcome on campus. We are still exploring ways to improve the connections between the General Science students themselves.

PDC recommended actions to be further taken (2013):

PDC commends the area on the innovative approaches taken to connect with General Science students and draw them into the life of the Faculty. PDC encourages the area to continue with such innovative approaches and looks forward to next year's update.

Actions taken 2013:

With a recent acquisition of space the Faculty of Science office has moved into Essex Hall. Contact with the Science Society has improved as a result. In addition we have acquired a significant student lounge space that is an epicentre of activity for science students. Previously introduced procedures are ongoing and students are encouraged to seek advising and seek opportunities for participation in both student led and Faculty led events.

The efforts to involve all students in the life of the faculty are ongoing and are on target.

PDC Comments:

PDC commends the area on its efforts to meet this recommendation and encourages it to continue them.

Status: *ahead of target* X *on target* *behind target* *recommendation satisfied.*

Recommendation 6: That the Faculty establish procedures for improving the tracking of General Science students, during their programs and at the end.

Agent: Dean, Program Coordinator

Completion by: Fall 2012

Actions Taken 2010:

The manual tracking of students enrolled in the General Science program, by semester, beginning with the Fall 2009 semester, is underway. A template for reporting the data will be developed during the 2011 Winter semester and a request will be made to the Registrar to provide a "tracking report" at the end of each semester. Personnel in the Office of Alumni Affairs will be consulted during the 2011 Winter semester to assist with the tracking of students after graduation.

PDC recommended actions to be further taken (2011):

PDC looks forward to next year's update on the establishment of procedures of improving the tracking of General Science students.

Actions taken 2011-2012:

Every semester, the status of current and former students in the General Science program is compiled into a standard report. At the program level, this report includes summary demographics. For individual students, information on program transfers, both into and out of General Science, are included. This information is a key component of the analysis that is described in Recommendation 3.

This reporting is still being done manually in the Faculty of Science office based on data provided by the Registrar's Office, but now that we have tested which information is desirable, and how it may be usefully

presented, we are examining ways to better automate the process. There are now enough semesters of reporting that we can begin building in some trend analysis; we are considering which analyses would be most helpful.

PDC recommended actions to be further taken (2013):

PDC notes that the area now has sufficient data from tracking reports on current and former students and requests that the area submit a trend analysis on the movement/progress of these students, in next year's report.

Actions taken 2013:

See the discussion in Recommendation 1 regarding the trends in student movement and progress in the General Science program. The observations that the good students move into four year Honours programs in Science of interest, that moderate students mostly successfully complete a general science degree, and that the very weak students transfer out of the faculty to other manageable programs is confirmation of our beliefs that have been built up anecdotally.

There is no significant benefit to maintaining this analysis; indeed, the former Associate Dean terminated it as a poor use of our limited resources. It is sufficient to troll through the list of general science students generated by Crystal Reports once in a while to ensure that there have been no significant changes in the profile of the students. An improved Crystal Report might assist this, and such a report might have benefits to other programs wondering where their students transferred. Currently much student information is not accessible as a result of University Policy FIPPA preventing access to many student transcripts by our staff, and indeed, even by the Associate Dean. Individual tracking is very problematic since that policy came into effect.

We will explore the possibility of obtaining a useful report from Crystal or Institutional Analysis for future consideration of tracking. In any case, the profile that has recently been built up on general science students over the past two to three years has absolutely no surprises and is not significantly different from the profile that we had about ten years ago. This is a stable population of students that is being well served by the services and program offered to them.

This recommendation should be deemed satisfied.

PDC Comments:

PDC concurs with the area's response and deems this recommendation satisfied.

Status: *ahead of target* *on target* *behind target* X *recommendation satisfied.*

UNIVERSITY OF WINDSOR
UNIVERSITY PROGRAM REVIEW (UPR)
REPORT ON: NURSING
UNDERGRADUATE AND GRADUATE PROGRAMS
 May 2014

EXECUTIVE SUMMARY

Review Preparation

In preparing this document, the Program Development Committee reviewed the following Nursing's Self-Study (SS) (March 2013), the report of the external reviewers (ER) (April 2013), and the response from the Dean of Nursing (January 2014) to the above material. The external reviewers were: Dr. Colleen McKey, Dr. Alice Gaudine, and Dr. Thecla Damianakis.

Undergraduate Programs

The Faculty offers a four-year undergraduate program leading to a Bachelor of Science in Nursing (BScN), in collaboration with St. Clair College and Lambton College. The first two years of the program are offered at all three locations. The third and fourth years of the program are completed at the University. As stated in the undergraduate calendar: "The curriculum is designed on the premise that professional nursing is multidisciplinary in nature, applying nursing, biological and social sciences, as well as the arts, to the care of individuals, families and communities." The BScN is accredited by the Canadian Association of Schools of Nursing.

Graduate Programs

The Faculty offers a thesis-based Master of Science in Nursing with two fields: Advanced Clinical Nursing, and Nursing Leadership; and a course-based Master of Nursing (with practicum) with three fields: Advanced Clinical, Leadership, and Primary Health Care Nurse Practitioner.

The Faculty also offers a Graduate Diploma in Advanced Practice Oncology/Palliative Care for individuals with a BScN or health-related 4 year honours degree and a Primary Health Care Nurse Practitioner Graduate Diploma for individuals with a Master's degree in Nursing, who wish to establish their own practice as primary health care providers.

Enrolments

Undergraduate

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
Undergraduate Full-Time	798	825	801	820	847
Undergraduate Part-Time	96	92	81	48	34

Graduate

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
MN Full-Time	23	21	21	27	27
MN Part-Time	26	23	20	13	12
MSc Full-Time	5	4	4	14	7
MSc Part-Time	17	14	12	8	6

Human Resources

Faculty/Instructors

Tenure/tenure-track faculty (including Dean)	17
AAS as Learning Specialist	3
Limited Term Appointments	2
Faculty members involved in graduate program delivery	11

Full/Part-time Staff

Assistant to the Dean	1
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Clinical Placement Coordinator	2
Secretary to the Dean	1
Secretaries	2
Lab and Education Coordinator	1

FINAL ASSESSMENT REPORT (with Implementation Plan)

Significant Strengths of the Programs

“The FON is an innovative, entrepreneurial, and responsive Faculty that provides quality undergraduate and graduate programs. They are seen as leaders in the province for the strength and preparation of their students for their entry to practice roles as new graduates. As well, students of the graduate program are recognized for their clinical and scholarly contributions to the profession.” (ER, p.13) The strength of the programs is evidenced in the Bachelor of Science in Nursing program receiving the highest accreditation award of 7 years by the Canadian Association of Schools of Nursing, and in reporting strong satisfaction with the programs and the support they receive from their instructors. The Faculty has established mechanisms to monitor program quality, to remain at the forefront with ongoing curriculum improvements, and to support faculty research/scholarship. (see ER report, pp.1-11)

Excerpt from ER report, p. 12:

“Key Strengths

- Well designed, delivered, and evaluated undergraduate and graduate programs’ curriculum.
- The 4th year Transitions course is seen as strength of the program by faculty, students and clinical agency partners.
- Well-developed simulation program that supports curriculum and does not replace clinical placement experiences
- The scholarship arm of the simulation program has engaged in research to support simulation, curriculum, and decision making.
- Graduate program offerings that incorporate research methodology and statistics in both the MN and MSc streams of the program.
- Integration of student peer tutors into the undergraduate program to support students to succeed.
- The inaugural counselor role to provide student care and support. This role is now being rolled out throughout the University.
- The role of Research Leadership Chair and work of the incumbent fosters a culture of
- research and scholarship across the faculty.
- Work of Graduate Coordinator and faculty members who teach graduate students to integrate scholarship opportunities into graduate courses: There are opportunities for faculty and students to work collaboratively to present at conferences.
- Effective partnerships with clinical practice agencies to provide and support the educational mission.”

Opportunities for Program Improvement/Enhancements

The Faculty continues to struggle with finding enough clinical placements for its students. This is an issue that began when US placements were no longer available after 9/11. The Faculty is working hard to re-introduce these US placement opportunities, and to build a strong roster of other placement opportunities. The reviewers noted that the Faculty should also continue working to ensure consistency among and between clinical placement opportunities and their evaluations, and to increase preceptor engagement and involvement in the programs. With the Western University Schulich School of Medicine – Windsor satellite campus, there are increased opportunities to develop interprofessional education opportunities and research partnerships. (see ER report, pp.1-11)

Excerpt from ER report, p. 12:

“Key Vulnerabilities

- Challenges related to filling vacant tenure track positions and creating additional tenure track and AAS positions to support the current undergraduate and graduate programs. This is a particular vulnerability in anticipation of the expansion of the graduate program including the introduction of the PhD program.
- An unknown future for Collaborative BScN Programs across Ontario due to the Colleges of Ontario position of pursuing degree granting status.

- Recognition of faculty members' workloads with competing demands to manage teaching, scholarship, and service.
- In recognition of these competing faculty demands, the ability of the FON to build research programs that further define the two research streams and are successful in external grant competitions with agencies such as CIHR"

IMPLEMENTATION PLAN

Recommendations

(Final recommendations arrived at by the Program Development Committee, following a review and assessment of the External Reviewers report and the Dean's response.)

Educational Mandate (in priority order)

1. That the Faculty continue to develop a strategic approach to the integration of Interprofessional Education (IPE) into the undergraduate and graduate program curricula. This approach can support the simulation initiatives as well as theoretical and clinical practice courses. An opportunity to partner with clinical agencies to translate IPE to Interprofessional Care initiatives will further define the uniqueness of the FON Programs.
Agents: Dean, Faculty Council
Completion by: Fall 2016
2. That the Faculty establish a mechanism to involve clinical practice partners in the design, delivery, and evaluation of the Transitions course, through consultation with them, invitations as guest lecturers, etc.
Agents: Dean, Faculty members
Completion by: Fall 2015
3. That the Faculty continue efforts and initiatives to reach out to current undergraduate and graduate students, and program graduates and obtain feedback, to help identify key areas for ongoing improvement and opportunities to ensure relevant curricula.
Agents: Dean, Curriculum and Evaluations committees
Completion by: Fall 2014
4. That the Faculty partner with clinical agencies and preceptors to identify mutual learning needs and appropriate education topics and methods of delivery to support preceptors in their education roles.
Agents: Dean
Completion by: Fall 2016
5. Explore opportunities for providing different pathways for pursuing undergraduate and graduate education (e.g., articulation agreements, undergraduate program for university graduates, etc.)
Agents: Dean, Faculty Council, Curriculum Committee
Completion by: Fall 2015

Research/Scholarship Mandate (in priority order)

6. That the Faculty further operationalize the strategic research plan that clearly defines the research mandate and further develop plans to achieve that mandate. Key areas to consider are
 - a. Further defining the two research streams with a goal of creating programs of research.
 - b. Strategies to support faculty scholarship in particular with external grant agencies such as CIHR.
 - c. Responding to ongoing financial and human resource implications supporting and impacting the research mandate within the Faculty of Nursing.**Agents:** Dean, Faculty Council,
Completion by: Fall 2017

UNIVERSITY OF WINDSOR
PROGRAM DEVELOPMENT COMMITTEE
UNDERGRADUATE PROGRAM REVIEW (UPR)
FOURTH ANNUAL STATUS REPORT ON: PHYSICS
May 2014

Recommendation 1: That the Department continue its efforts to ensure that agreed upon enrolment targets are met within the Medical Physics stream and across all programs offered by Physics, as set out in the November 2007 agreement submitted as part of the Medical Physics program proposal.

Agent: AAU Head, Dean of Science

Completion by: Ongoing

Actions taken (2010):

Efforts at recruitment continue and a new program to increase retention of students in the first-year of the physics program has been initiated. The retention initiative entails computerized grading of assignments and the provision of electronic tutorials. The reorganization of the physics program instituted this fall, based on a B.Sc. in Honours Physics, offers new flexibility in course selection and is expected to contribute to recruitment and retention efforts. Most important is the appointment of a new faculty member, which is currently nearing completion, to a tenure-track position in medical physics. The appointee will be instrumental in developing and publicizing the medical physics program and recruiting students to it.

PDC recommended further actions to be taken (2011):

PDC notes with concern the area's continued low enrolment numbers. PDC also notes the area's recruitment and retention efforts, particularly the recent renaming and redesign of its programs and the provision of additional voluntary electronic tutorials. PDC requests that Physics provide more detailed quantitative enrolment information, and an analysis of these enrolment numbers and its program offerings, in its next annual report.

Action taken (2011):

Efforts on Recruitment continue. All faculty members and some of the retirees are visiting local high schools to publicize our physics programs including medical physics. Additional voluntary electronic tutorials are in place to maintain retention in first year physics classes.

PDC recommended further actions to be taken (2012):

PDC Comments (January 2012)

PDC continues to note with concern the area's continued low enrolment numbers. The approval and further resourcing of the Medical Physics and other Physics programs were contingent on meeting enrolment targets as set out in the Senate-approved program proposal (see attached). These enrolment targets have never been met and Fall 2011 enrolment numbers show a decrease. Immediate consideration of the future of Physics programs is now required, as noted in the Senate-approved document, with a report due to PDC by June 1, 2012. PDC recommends that one of the Physics programs be cancelled, given the failure to meet enrolment targets as specified in the Senate document.

PDC Comments (February 2012)

Following a meeting with Physics, the PDC has agreed to extend the area's deadline for meeting its enrolment targets for all existing programs, as set out in the Senate-approved document, to Fall 2013. Physics is also required to submit to PDC student recruitment and retention plans, with specific action items and timelines, by June 1, 2012.

Actions taken (2012):

Our report on the efforts within the Physics Department to improve undergraduate recruitment and retention in the past academic year was submitted to Senate PDC in June, and was discussed on the Sep. 21st meeting. All of our 7 faculty members, and 4 of our professor emeriti participate actively in Recruitment, Retention and Publicity activities. The undergraduate students, graduate students, and the laboratory coordinator, Mr. Aldo Dicarolo, volunteer their time to support these activities. During the past year, we have promoted the high quality of our B.Sc. Hons. Physics program, in particular focusing on the Medical Physics stream. Fall 2012 first-year enrolment data indicates that our aggressive recruitment efforts of the past year have been very successful. The first year enrolment in all B.Sc. Physics streams is 43 students (approximately 37 FTE's), which meets our

target of 27 FTE's in year 1. (See Appendix C). We are continuing our aggressive recruitment efforts.

PDC recommended further actions to be taken (2013):

PDC commends the area on its recruitment efforts and encourages it to continue them. PDC notes that, as of the November 1, 2012 enrolment count date, Physics first year enrolment across all streams is 31 full-time (24 in the medical physics stream) and 1 part-time. Over all four years, Physics enrolments in all streams is at 61 full-time (31 in the medical physics stream) and 15 part-time. As noted last year, PDC extended the area's deadline for meeting its enrolment targets for all existing programs, as set out in the Senate-approved document, to Fall 2013. PDC looks forward to Physics' reporting next year on its achievement of enrolment targets. (see *Appendix A for Senate document on enrolment targets*)

PDC also notes with concern that the area saw a loss of 41% of first year students to other departments from Fall 2011, as reported under recommendation 3. In light of this, PDC requires that the area devise and implement new retention initiatives in order to enhance the student experience and meet enrolment targets, and provide a report on these new initiatives in Fall 2013.

As it works to develop new retention initiatives, Physics is encouraged to consult with the CTL for strategies for delivering first-year courses which could enhance retention, and to consult with other Faculties or departments that have instituted retention programs for ideas that could translate to Physics (*e.g.*, FASS year-one initiatives, the Faculty of Human Kinetics KinOne initiatives). Physics should also conduct exit surveys of students who leave the program to determine reasons for leaving. (*e.g.*, Is the level of difficulty of the first-year 100-level courses reasonable and appropriate?) Such information would help inform retention initiatives.

Actions taken (2013):

According to the Office of Institutional Analysis, in the 2012-2013 year, Physics had 78.5 FTEs (projected 70) of which 71.4 FTEs were single Physics majors. Of this, 38.9 FTEs (projected 40) are in the Medical Physics stream, with 22 FTEs (projected 15) in first year Medical Physics. **Therefore, the 2007 enrollment projections have been met, and this recommendation has been satisfied.**

It is important to note that the resource allocation assumptions upon which the enrollment projections were based have changed. Specifically, our projected enrollment was predicated upon having 8 full time faculty members with one devoted to medical physics. This has not happened. In addition, it was assumed that resources would be made available to offer new medical physics teaching laboratories. These resources including space and funding have only been received in 2012.

We have been continuing our aggressive recruitment activities as listed in Attachment 1. This summer, we received a \$1,25,000 grant from the Baker Foundation to support development of our Medical Physics Education laboratory, and this along with the \$50,000 commitments by the University (\$40,000 from Strategic Project Funds and \$10,000 from Faculty of Science) will allow us to develop a high quality laboratory experience. Our plan is to utilize these already-obtained funds to develop a "show-piece" laboratory, which will make an excellent recruitment and retention tool. We expect that the news of this cutting-edge training lab will further attract students to our program.

We have also initiated first-year retention activities as advised by PDC (Attachment 2). These activities seem to have borne fruit, and in this year, the loss of first-year students to other Departments in Science has decreased from 40% to 17.6%. We are continuing to refine these retention activities in consultation with the students. We have made programmatic changes in all our streams that have increased flexibility, made it easier for students to select courses, and will aid in the timely graduation of all students.

It must be recognized that these activities are very time and labour intensive for faculty members. Attachments 1 and 2 will demonstrate that we have been doing both recruitment and retention activities in addition to our full complement of teaching and scholarly activities, with a decrease in staff secretarial support, and with no resources provided for this. Over the past 5 years, we have been the fastest-growing unit in Science, but without prompt faculty & staff investment, sustaining this rate of growth in future years will be extremely challenging.

PDC Comments:

PDC commends the area on its intensive recruitment and retention efforts and encourages it to continue them. PDC concurs that this recommendation has been satisfied.

Status: ___ *ahead of target* ___ *on target* ___ *behind target* **X** *recommendation satisfied.*

Recommendation 2: That the Department work with the Dean of Science and Public Affairs and Communication to continue to find ways to publicly recognize the distinguished achievements of the faculty in the Physics Department.

Agent: AAU Head, Dean of Science, Public Affairs and Communication

Completion by: Fall 2011

Actions taken (2010):

This is an on-going action that has seen an increase in publicity for the Department, with news items sent to Daily News and media on a frequent basis. The Maev group has been especially successful in its publicity efforts. The effort is tied to the development of a new Physics website, which is near completion but has been delayed by transfers of both secretaries to the department office.

PDC recommended further actions to be taken (2011):

PDC notes the area's efforts to promote the faculty and the department and encourages Physics to increase them. PDC also encourages the area to place a higher priority on launching its new website which serves as a primary vehicle for publicizing faculty achievements and departmental events.

Actions taken (2011):

A new physics website was launched. Public lectures have been delivered to the Windsor community through Science City, most recently about Medical Physics, which received city wide media coverage and articles about Medical Physics have been published in local news paper (Windsor Star) and in the university Daily News website. Dr. Steve Rehse attended the University Fair in Toronto in October 2011 with Recruitment Staff to draw new students to Physics and Medical Physics programs.

PDC recommended further actions to be taken (2012):

PDC notes the area's efforts to promote faculty achievements, including on the website and in local media. PDC encourages the area to continue these efforts and to expand them to include provincial and national coverage.

Actions taken (2012):

Publicity efforts have become challenging since we have lost the part-time general secretary, and have only one secretary in the whole department.

- Undergraduate students in the Physics Club greatly **increased our social media presence** by instituting a Twitter feed and a Facebook page to make it easier for prospective high-school students to engage with current students/faculty.
- We are regularly sending Physics news and event items to the Daily News for broad dispersal.
- Undergraduate and graduate students volunteered their time to put together a show called "Phunky Physics Show" and this was premiered at the Rotary Club's Children's Fest on Sep. 15th. to about 100 attendees.
- We held a public seminar by Wayne State professor Dr. Robert Harr to talk about the momentous discovery of the Higg's boson on Sep. 13th. He spoke to a standing-room-only crowd of over 90 people.
- The Physics Club and the Department of Physics put on a grand exhibit at Science Rendezvous, a festival that attracted over 600 attendees to campus. The featured attraction was the 'fire tornado' – a demonstration that was presented on national television (Discovery Channel's Daily Planet). Dr. Rehse appeared again on the Daily Planet this month demonstrating how laser skin treatments work.
- Physics was well represented at the Research Showcase event at Devonshire Mall. 6 faculty/emeriti members participated with approximately 8 undergrad/grad students participating to increase visibility of the Physics Department, and to promote Physics.
- We participated in the Virtual Researcher on Call program that webcasts science to Ontario high schools. Dr. Chitra Rangan webcasted a physics module to a high-school in the York region; Dr. Steve Rehse and undergraduate Daniel Travo recorded webcasts for the 'Science Careers Weekly!' program.
- Faculty presented public lectures at the Canada South Science City and to the Windsor Humanist Club. Rehse's talk at Science City received good media attention, including a CBC interview and an article on the front page of the Windsor Star.

- Faculty have broadcast on CJAM radio, 'Research Matters' showcasing physics research highlights.

PDC recommended further actions to be taken (2013):

PDC commends the area on its efforts to promote physics as a discipline and encourages it to continue them. PDC also notes that, since the recommendation speaks to promoting faculty achievements, the area might consider establishing a webpage commemorating the impact of emeriti on the program and the discipline as a whole (in addition to separate webpage(s) on current faculty).

Actions taken (2013):

Physics thanks PDC for acknowledging and appreciating the impact of our Emeriti faculty on our programs and discipline. A brief summary of these contributions is attached (Attachment 3). As you see, the workload of the professors emeriti supporting graduate and undergraduate programs is very significant. We promote our Emeriti's research outputs on the Department's main page. We feel, however, and the Dean agrees, that it would be detrimental to the image of the Department and the Faculty to put their contributions on a separate website when we have such a small faculty complement.

Emeriti webpages are part of our Departmental website. The research activity (grants, and student supervision) of our professors Emeriti enable us to provide experiential learning opportunities for our undergraduates. Our emeriti supervise honours research projects (theses) and outstanding scholar projects (sometimes as many as three students per year!) that greatly support our undergraduate retention activities.

PDC Comments:

PDC commends the area on its efforts to publicize faculty achievements and other activities and initiatives through its website. PDC encourages the area to focus on keeping the website current and notes that this recommendation has been satisfied.

Status: *ahead of target* *on target* *behind target* X *recommendation satisfied.*

Recommendation 3: That Physics work with the Dean to develop a hiring plan that addresses the teaching needs of the department, in accordance with program course requirements, and aligns with student enrolment numbers.

Agent: AAU Head, Dean of Science

Completion by: Fall 2013

Actions taken (2010):

The first major step in the hiring plan has been taken with the approval of a tenure-track position in Medical Physics. The position was posted, two candidates were interviewed, and one was selected. The process is nearing completion. Future plans were discussed at a recent Departmental retreat, but more background work is needed before a definite proposal can be made to the Dean.

PDC recommended further actions to be taken (2011):

PDC encourages the area to continue its efforts with regard to this recommendation and looks forward to receiving a hiring plan that addresses the teaching needs of the department, in accordance with program course requirements, and aligns with student enrolment numbers.

Actions taken (2011):

Dr. Steven Rehse was hired for tenure-track position in Medical Physics. Unfortunately, Dr. Tim Reddish resigned from his position as full faculty member in the Department and now he is now an Adjunct Professor. The Department is now trying to convince Administration of the University that to address the teaching and research needs of our Department properly, we should hire a replacement for Dr. T. Reddish.

PDC recommended further actions to be taken (2012):

PDC notes that current enrolment numbers do not seem to reflect a need for an additional faculty member. PDC urges the area to submit a hiring plan that addresses the teaching needs of the department, in accordance with program requirements, and aligns with student enrolment numbers. PDC notes that any future hires needs to be

associated with a realistic strategic plan for the department, developed in consultation with the Dean.

Actions taken (2012):

We are behind target in this recommendation since Dr. Reddish (who resigned in 2011) has not been replaced. The loss of Dr. Reddish is seriously stressing our undergraduate program. In addition to being a great teacher, Dr. Reddish provided experiential learning opportunities for many of our undergraduates. He was also responsible for teaching the nuclear and particle physics content. Without these topics, our students have a gaping hole in their physics education and this will affect their performance in the national Canadian Association of Physicists undergraduate prize exam, and the Physics GRE. There are also fewer opportunities available to our undergraduates for thesis research. We urgently (it is not an exaggeration to say desperately) need a replacement for Dr. Reddish. We would reiterate that it is the position of the Physics Department that this is not an "...additional faculty member..." as noted by the PDC, but rather a continuation of the tenure-track position of Dr. Reddish, which will allow us to maintain a constant faculty number.

Dr. Rehse, who was hired in 2011 (as a replacement for Dr. Atkinson who retired in 2009), has developed and delivered 4 courses in the Medical Physics program. Two of these courses are to include a laboratory, but the funding for establishing and delivering a laboratory have not been provided. Dr. Rehse has worked extensively with Windsor Regional Cancer Centre's medical physicists who are helping us set up the undergraduate laboratories on medical imaging and radiation therapy, but we urgently need set-up funds for this. (Appendix D)

Our Department has identified the retention of first year Physics majors as a strategic priority. To that end, in 2010, we applied for and obtained funds from the Strategic Priority Fund to develop tutorial modules for students who would be identified as requiring supplemental instruction. Dr. Tim Reddish was to develop these modules and implement the intervention in Fall 2011. Unfortunately, Dr. Reddish left the University in August 2011, and there was no one who could pick up the delivery of these modules on such short notice. The first year course was taught by a sessional instructor. This definitely worked against our efforts on retention, and we lost 11 out of 27 first year students to other departments within the University. We have since ensured that first year courses are taught by full time faculty members. This has stressed other aspects of our programs – we do not offer *any* fourth year options, and we cannot offer sufficient graduate courses in order to support/promote our one-year course-based Master's program.

Another issue to be considered is the commitment to replace anticipated retirements (during the next five years, three faculty members are/will be eligible for retirement). This will be an important consideration as we complete our strategic planning exercise.

In consultation with the Dean of Science, we are developing a strategic plan for our Department with strategic priorities of Teaching Excellence, Research & Experiential Learning, and Community Engagement. Our Department is uniquely known for the multiple genres of experiential learning opportunities we provide all our students. Most students participate in research with our world-renowned faculty in the areas of Atomic, Molecular and Optical (AMO) Physics, Materials Science, and Biomedical Physics. We also look forward to working with other AAU's in the areas of Nanomaterials and Cancer Research. We would like to explore the possibility of joint (multidisciplinary) faculty appointments in these cutting-edge areas.

PDC recommended further actions to be taken (2013):

PDC requires that the area submit a hiring plan that addresses the teaching needs of the department, in accordance with program requirements, and aligns with student enrolment numbers. PDC notes that any future hires need to be associated with a realistic strategic plan for the department, developed in consultation with the Dean.

PDC notes that the area has an allocation of seven full-time tenure or tenure-track faculty members, as well as three cross-appointments with Chemistry and Biochemistry. In developing its hiring plan, the area ought to first review teaching loads to ensure that all current tenured and tenure-track faculty members contribute to the delivery of the Physics program through involvement in undergraduate and graduate teaching.

Actions taken (2013):

We are developing a hiring plan that both supports our current teaching activities and our plans for increasing enrolment particularly at the undergraduate level. We will submit this in a separate document to PDC.

With the current financial situation of the University and the Faculty of Science, and the method in which Activity-based Budgeting is implemented, no Faculty positions are expected to open up in Science in the near future, and we have been advised by the Dean that no hiring in Physics will occur in the foreseeable future. Based on this analysis the Faculty of Science does not wish to act upon this recommendation and we [*the Faculty of Science*] deem that the recommendation should be withdrawn.

Please note that all our faculty teach their full load of courses a year unless their teaching releases were sponsored by a University office/grant. Cross-appointed faculty mainly supervise graduate students and provide research synergies. We cannot expect cross-appointed faculty to teach in our unit, just as the 3 of us cross-appointed in other units do not teach in them.

PDC Comments:

PDC appreciates the Faculty of Science's position and understands that the Department would nevertheless like to submit a hiring plan (currently in draft format) in the event that circumstances change.

Independent of the financial situation, the PDC requests that the area submit its hiring plan with its next annual status report, so that when funds become available there will be a plan in place.

Status: *ahead of target* X *on target* *behind target* *recommendation withdrawn*.

Recommendation 4: That the Department continue working with the Centre for Career Education (CCE) to clearly define the co-op experience and available co-op placements, to ensure that student expectations are in line with current co-op offerings. The Department is encouraged to pursue its proposal to establish a co-op liaison representative from Physics to facilitate communication and understanding between all parties (faculty, students and CCE).

Agent: AAU Head, Centre for Career Education

Completion by: Fall 2012

Actions taken (2010):

Dr. Reddish is the Departmental liaison representative for the co-op placements and to the Centre for Career Education. His appointment has improved communication and reduced complaints among students, faculty, and the CCE. All parties seem satisfied and pleased with the progress

PDC recommended further actions to be taken (2011):

PDC commends the area on its assignment of a faculty liaison representative for co-op placements, which has gone a long way to addressing this recommendation.

Actions taken (2011):

Dr. Eugene Kim will replace Dr. Reddish as the Departmental liaison representative for co-op placements and Centre for Career Education. He will continue the work which was started by Dr. Reddish.

PDC recommended further actions to be taken (2012):

PDC urges the area to continue to work with the Centre for Career Education to actively pursue co-op opportunities and ensure that this is a viable option for students.

Actions taken (2012):

Dr. Eugene Kim continues to be the liaison of the Department with CCE. All the students seeking co-op placements were well-placed. We note that the number of students in the co-op option has dropped. One reason seems to be the fact that co-op students do not have many choices in courses during the summer term.

Over the summer, after seeking the advice of Dr. Dave Bussiere and Ms. Katia Benoit, as well as surveying our own undergraduate students, we decided that it would be in the best interest of students and faculty to go to a fall-winter teaching schedule. We are working with Co-op and Career Education, and if we get the paperwork together on time, we will plan to switch to the new schedule in fall 2013 with some adjustments for students who are currently in co-op.

PDC recommended further actions to be taken (2013):

PDC encourages the area to continue working with CCE regarding the feasibility of providing summer-only co-op terms, as this may not be in line with co-op accreditation rules which general require a minimum number of alternating semester (Fall, Winter, Summer) co-op terms.

Actions taken (2013):

The changes in our Co-op option are in collaboration and concurrence with the Co-op office. With the program changes that we are making, starting in Fall 2014, the co-op option will take 5 years with a 3 month (in Summer of year 2) and 12 month (in year 4) co-op placements similar to that offered by Industrial Engineering.

Thus, this recommendation has been satisfied.

PDC Comments:

PDC notes that this recommendation has been satisfied.

Status: *ahead of target* *on target* *behind target* **X** *recommendation satisfied.*

Recommendation 5: That the Department and the Faculty continue to explore opportunities for undergraduate program collaboration with Engineering and other Science-related or cognate disciplines. Such discussions may include consideration of a Engineering Physics program, a Engineering Science program, and undergraduate partnerships with the Diagnostic Imaging Institute.

Agent: AAU Heads, Departmental Councils and Faculty Coordinating Council in Science, Dean of Science, AAU Heads, Departmental Councils and Faculty Coordinating Council in Engineering, Dean of Engineering,

Completion by: Fall 2014

Actions taken (2010):

The Department has participated in meetings and supported the initiative to launch new programs in Engineering Science, and the Faculty of Engineering together with the support of the Faculty of Science made an internal grant application to fund the initiative. The Department of Physics also reorganized its first-semester course, 03-64-140: Introductory Physics I, so that it could accommodate engineering students. (All engineering students currently take the second-semester course 03-64-141: Introductory Physics II.) However, progress to date is minimal. The initiative in Engineering Science, in which engineering physics would play a central role, was not funded, and administrative reorganization in Engineering, a recently approved course sequence for engineering students, and distractions related to the construction of a new centre for engineering innovation, have postponed the planning for the initiative.

There are good opportunities for future collaboration between our new appointee in medical physics and the Department of Biology.

PDC recommended further actions to be taken (2011):

PDC notes the area's efforts to explore and develop collaborative initiatives and encourage it to continue them

Actions taken (2011):

Talks between The Department of Physics and the Faculty of Engineering regarding the possibility of launching a new Engineering Physics program or/and Engineering Science program are in progress. A short survey was prepared to be conducted at the Ontario University Fair in Toronto, as well as by CO-OP employers of our current students, and by some high school students at the time of our high school visits.

PDC recommended further actions to be taken (2012):

PDC looks forward to hearing the results of the survey to gauge prospective student interest in an Engineering Physics program. PDC requests that the area report next year on the progress it has made in the development of such a proposal, should the survey results warrant it. From the perspective of PDC, considering past enrolment trends, it would seem that an Engineering Physics program would constitute the "hope" of the future of Physics as an entity and significant effort should be made toward this recommendation this year.

Actions taken (2012):

We have begun discussions with the Faculty of Engineering to develop an Engineering Physics program. This

program was shown to be in demand by a survey conducted at the Toronto University Fair. Currently, we are assembling the curriculum in such a way that we will meet all the requirements of the accreditation from the CAEB as well as the CAP. When this program gets under way, it would be prudent to phase out the Physics and High Technology stream.

A large number of applicants ask us about concurrent education. Similar to other concurrent science and education programs that currently exist, we plan to develop a Physics and Education program. Both these programs are being planned such that they would not require any new resources.

We have presented a proposal to the Department of Chemistry and Biochemistry to rebrand/refocus the joint B.Sc. Honours program in Chemistry and Physics as a B.Sc. program in Nanoscience, with an aim to offering an attractive interdisciplinary program and increasing enrolment in both AAU's.

Representatives from the Physics Department have met with the Associate Dean of Medicine from the Schulich School of Medicine – Dr. Mark Awuku and his replacement Dr. Gerry Cooper – with the intent of forming a collaborative educational experience between the School of Medicine and the new Medical Physics program. Such collaboration would be to the mutual benefit of both medical and physics students. Great interest was expressed by both Deans, although their preference was to let the numbers of the emerging School of Medicine program stabilize (taking 1-3 years) before exploring “new” options and involvements for medical school students and staff. Nonetheless, we see the new specialty classes in Medical Physics as strong candidates for providing in-roads to involvements with other programs both within and outside the Faculty of Science.

Progress on ramping up these programs is hampered by the fact that we are a low resourced AAU with one secretary for the whole Department, and there is no opportunity for giving teaching releases for faculty members who take on these administrative responsibilities.

PDC recommended further actions to be taken (2013):

PDC cautions that the development of new undergraduate programs should be considered only where such developments are viable, require no new resources, and have no impact on the sustainability and growth of current programs. Current programs, and new programs (if any), must be considered in light of retention concerns and initiatives under recommendation 1.

Actions taken (2013):

All program development is indeed taken on with the considerations of viability (e.g., we have had expertise in Nanoscience for the past 30 years), no new resources (using existing courses), and the potential impact on our current programs (i.e., we are not developing streams of our own programs but seeking new partnerships with other units). We also progress slowly on these initiatives because we are a low resourced AAU with one secretary for the whole Department, and there is no opportunity for giving teaching releases for faculty members who take on these heavy administrative responsibilities.

Our proposal to the Department of Chemistry and Biochemistry to rebrand/refocus the joint B.Sc. Honours program in Chemistry and Physics as a B.Sc. program in Nanoscience was not adopted. At this time, we should seriously consider deletion of the joint Honours program in Chemistry and Physics as it stands because students can complete the same program by doing a double major in Chemistry and Physics.

The details of the Engineering Physics program are being worked out in the Faculty of Engineering. This is a time-consuming exercise since we wish the program to be accredited. However, we believe that the enrollment in this program will be worth the effort that we put into it.

We would very much like to develop Concurrent Physics and Education and we are waiting to see how the change to the Faculty of Education program (from one year to two years) will impact these development.

We have many ideas for innovative and attractive collaborative undergraduate programs, but with our current faculty complement, we cannot develop any more new programs.

PDC Comments:

PDC appreciates the area's continuing efforts to explore undergraduate program collaboration and looks forward to an update on these initiatives, particularly the Engineering Physics proposal, in next year's annual report.

PDC encourages the area to address the question, raised by Physics, of the viability of the Honours Chemistry and Physics program with the Department of Chemistry and Biochemistry and looks forward to an update next year.

Status: *ahead of target* X *on target* *behind target* *recommendation satisfied*.