Student Success at Memorial Building the Foundation

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1.0 Introduction

A university’s graduates are its greatest legacy. The cornerstone of institutional reputation is the success of its students, which is a responsibility shared equally by the student and the institution. As society places increasing value upon higher education, its expectations also grow, making it more important than ever to provide the circumstances that promote academic and personal success.

Memorial has always accepted this obligation. One need only look to Memorial’s original strategic plan, Launch Forth, to see that:

*Mental University recognizes a special obligation to educate the citizens of Newfoundland and Labrador…*

*The university is dedicated to providing a superior learning environment through responsive and innovative teaching, supported by excellence in research and scholarship, creative activity and service to the community.*

*The university is responsive to Newfoundland and Labrador's unique geographical, cultural and economic milieu and to the diverse needs of the student population of the province.*

In its strategic framework, the university reaffirmed these values and made the success of students through to graduation a high priority. Specifically, Action 2.2 states that Memorial will:

*Take steps to make the transition from high school to university more manageable for our students and to achieve a higher retention rate in undergraduate programs. In each of the next five years, measures will be undertaken to improve integration of students into the Memorial community and to enhance the quality of their academic and social life with a view to increasing retention by 2% per year for each year of study from admission to graduation.*

Realization of this goal would mean that Memorial achieves a retention rate of approximately 70% into fourth year for any given cohort. Our studies lead us to believe that 75% is a more reasonable goal. The strategic framework does not set specific targets for graduation rates, but if increased retention leads to a corresponding increase in graduation rate, the proportion of the entering class who graduate should increase to approximately 60%. Achieving this goal would represent a significant improvement over the status quo.
The Enrollment Planning Working Group at Memorial is responsible for developing a plan that achieves the objective of the framework. The Group understands this exercise not simply as retention, but as student success, which implies stronger academic performance and shorter time to graduation. It speaks to standards. Memorial attracts most of the brightest and best this province has to offer and can offer them an educational experience that is second to none.

The Working Group has reviewed information from a variety of sources and identified three broad objectives:

- increased graduation rates
- reduced time to graduation
- improved retention through enhanced academic performance.

Based on the evidence, it is proposing a focus on the first year of studies. This deliberate strategy corresponds to most literature on student success, which suggests that efforts are most productive when “front-end loaded”. Addressing performance issues effectively at an early stage allows students to avoid many of the problems that otherwise emerge later. Many of the strategies developed to help first year students are also broadly applicable to students beyond first year.

Improved student success and higher retention will increase enrollment, reducing the need to expend resources on recruitment. Improved graduation rates enhance Memorial’s reputation inside the province, nationally and internationally. An improved institutional image will make it easier to attract undergraduate and graduate students and faculty members. Better performance by students will make professors’ jobs more pleasurable.

This report will provide an overview of the essential data. A statement of the principles, objectives and goals that drive the development of the plan then follows. Finally, specific strategies and actions will be recommended to address the issues that have been raised and the goals that have been proposed. These strategies and actions are posed from an institutional perspective with the realization that while the goals are generally universal, implementation of strategies and actions will have to respect the diversity of the various campuses and disciplines that make up the university.

2.0 Background

Over the past few years, a great deal of information has been generated about student success at Memorial, but it is spread across a number of published and unpublished reports generated for a variety of purposes not specifically related to issues of success. A review of the available data identifies some major issues of this kind.
2.1 Graduation Rates

Two major issues of significance are the proportion of first year students who ultimately graduate from Memorial and the amount of time it takes them to do so. One means of looking at this is by tracking new matriculant cohorts through to graduation. Graduation rates by cohort are shown in Table 1.

<table>
<thead>
<tr>
<th>Cohort Year</th>
<th>Percent of students in cohort graduating by:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 4</td>
</tr>
<tr>
<td>1992 (n = 2,838)</td>
<td>5.8</td>
</tr>
<tr>
<td>1993 (n = 2,703)</td>
<td>7.0</td>
</tr>
<tr>
<td>1994 (n = 3,095)*</td>
<td>7.9</td>
</tr>
<tr>
<td>1995 (n = 2,269)</td>
<td>12.3</td>
</tr>
<tr>
<td>1996 (n = 2,282)</td>
<td>14.1</td>
</tr>
<tr>
<td>1997 (n = 2,351)</td>
<td>13.0</td>
</tr>
</tbody>
</table>

* In 1994 there was a teachers strike in the K-12 system that resulted in Memorial accepting all applicants who graduated from high school having completed the courses required for admission.

Comparisons of cohorts are complicated by environmental factors such as changing admission averages, changes in the use of public examinations and the implementation of the enhanced entrance scholarship program in 1997. However, the numbers for the 1995, 1996 and 1997 cohorts have shown improvement. Some of this improvement could be attributed to Memorial’s admission average being increased to 70% in 1995.

One problem with using a cohort-based methodology is that it takes about five years before sufficient data emerge for any given cohort. An alternative approach traces graduating students back to their time of admission. In 2000, 61.8% of students graduating from four year programs convocated within five years of starting university. For students in five-year programs, 84.7% of students graduated within six years of starting university. This is an improvement over 1999 when the percentages were 56.2% and 82.7%.
Despite these gains, there is considerable room for further improvement. According to the graduation rates calculated by Maclean’s for their rankings, which uses *second* year students as opposed to incoming students, Memorial’s rates are among the lowest of the comprehensive universities. We need to know why.

### Maclean’s 2002 Graduation Rate

**Comprehensive Universities**

<table>
<thead>
<tr>
<th>University</th>
<th>Graduation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guelph</td>
<td>90%</td>
</tr>
<tr>
<td>York</td>
<td>88%</td>
</tr>
<tr>
<td>SFU</td>
<td>86%</td>
</tr>
<tr>
<td>Waterloo</td>
<td>84%</td>
</tr>
<tr>
<td>Regina</td>
<td>78%</td>
</tr>
<tr>
<td>Victoria</td>
<td>74%</td>
</tr>
<tr>
<td>Western</td>
<td>72%</td>
</tr>
<tr>
<td>Concordia</td>
<td>69%</td>
</tr>
<tr>
<td>UNB</td>
<td>71%</td>
</tr>
<tr>
<td>Memorial</td>
<td>68%</td>
</tr>
</tbody>
</table>

2.2 **Student Retention at Memorial**

Retention is a good starting point in considering how to improve graduation rates. Table 2 below shows the percentage of the students entering Memorial in a given year who are still attending the university at the beginning of years two, three, four and five. The Table shows that retention from first to second year has increased from 75.1% for the 1995 cohort to 80.0% for the 2000 group. Retention into the third year has also improved from 1995 to 1999 (retention into fourth year actually declined slightly over the period from 1995 to 1997 but rebounded in 1998). Despite the improvement shown in earlier years, by the beginning of year three, roughly one-third of students in a given cohort are no longer enrolled at Memorial. By year four the attrition rate is approximately 40%.
Table 2
Retention Rates for New Matriculants

<table>
<thead>
<tr>
<th>Cohort Year</th>
<th>Percent of students in cohort returning for:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 2</td>
</tr>
<tr>
<td>1995 (n = 2,269)</td>
<td>75.1</td>
</tr>
<tr>
<td>1996 (n = 2,282)</td>
<td>74.7</td>
</tr>
<tr>
<td>1997 (n = 2,351)</td>
<td>75.9</td>
</tr>
<tr>
<td>1998 (n = 2,008)</td>
<td>78.1</td>
</tr>
<tr>
<td>1999 (n = 2,020)</td>
<td>78.8</td>
</tr>
<tr>
<td>2000 (n = 2,187)</td>
<td>80.0</td>
</tr>
</tbody>
</table>

The impact of improved retention would be significant. Assuming a cohort size of 2,000 and an overall retention rate to the beginning of year four of 75% (as opposed to the 58.6% that existed at Memorial in 1997 and the 70% proposed in the strategic framework), there would be an additional 796 students enrolled once these new retention rates flowed through the system. This would mean an additional annual tuition plus provincial tuition subsidy of approximately $2.6 million. It would also have a huge positive impact on the image of the institution in the eyes of its student population and the community in general.

2.3 Academic Performance in First Year

The biggest factor influencing retention is academic performance. From a first year perspective, students who do well in high school are more likely to perform better in their first semester, a factor that is very important to future success.

However, it is also noteworthy that most first year students see a significant decline in their grades. Overall, the first semester averages of the new matriculant class of 2001 were 16.7 percentage points below their high school averages. This very significant gap needs to be examined further in order to determine how it might be narrowed.

Failure rates are also significant. Table 3 shows that the percentage of students who achieve first semester averages of less than 50% has varied between 11.6% and 15.9% from 1995 to 2001. Since 1995, between 261 and 370 students each Fall semester do not achieve the minimum average for readmission and must invoke their “forgiveness” clause to return to Memorial.
Table 3
Number and Percent of Incoming Cohort that Achieved Less than 60% in their First Semester

<table>
<thead>
<tr>
<th>Cohort and Size</th>
<th>Less than 50%</th>
<th>50 - 54.9%</th>
<th>55 - 59.9%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>% of Cohort</td>
<td>Number</td>
<td>% of Cohort</td>
</tr>
<tr>
<td>1995 (n = 2,269)</td>
<td>263</td>
<td>11.6%</td>
<td>254</td>
<td>11.2%</td>
</tr>
<tr>
<td>1996 (n = 2,282)</td>
<td>318</td>
<td>13.9%</td>
<td>249</td>
<td>10.9%</td>
</tr>
<tr>
<td>1997 (n = 2,351)</td>
<td>370</td>
<td>15.7%</td>
<td>236</td>
<td>10.0%</td>
</tr>
<tr>
<td>1998 (n = 2,008)</td>
<td>320</td>
<td>15.9%</td>
<td>198</td>
<td>9.9%</td>
</tr>
<tr>
<td>1999 (n = 2,020)</td>
<td>288</td>
<td>14.3%</td>
<td>242</td>
<td>12.0%</td>
</tr>
<tr>
<td>2000 (n = 2,187)</td>
<td>315</td>
<td>14.4%</td>
<td>230</td>
<td>10.6%</td>
</tr>
<tr>
<td>2001 (n = 2,058)</td>
<td>272</td>
<td>13.2%</td>
<td>193</td>
<td>9.4%</td>
</tr>
</tbody>
</table>

Five-Year Graduation Rate (1995 group only)

Table 3 also indicates that roughly 40% of students achieve first semester averages of less than 60%. This is very high. Research indicates that there are significant consequences for these students in terms of their graduation rates and times to completion. The line at the bottom of Table 3 shows the five-year graduation rate for the 1995 cohort, cross-tabulated by their first semester average. Only 3.8% of students with first semester averages below 50% graduate after five years. The graduation rates for students between 50 and 55 and between 55 and 60 improve to 12.6% and 24.5% respectively. The remaining grade groupings combined have a five-year graduation rate of 46.0%. This indicates that first semester performance is a strong predictor of on-time graduation.

Gender and geographic region have an impact on first semester performance, as evidenced in Table 4.

Table 4
Failure Rates by Gender and Geographic Origin - Fall 2001

<table>
<thead>
<tr>
<th>Gender</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>9.2%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Male</td>
<td>14.5%</td>
<td>18.3%</td>
</tr>
</tbody>
</table>
Performance in first year also seems to be related to the relatively high number of undeclared majors beyond first year at Memorial. In 2000, the Senate Committee on Undergraduate Studies undertook a study of 1,425 undeclared and 725 pre-majors beyond their first calendar year of study to determine why they had not declared a major. The results showed that 63.9% of undeclared majors and 57.8% of pre-majors either did not have the required number of credits to declare a major or had cumulative averages below 60% (or both) and therefore could not be accepted into their major of choice. Inability to declare a major means that students have to redo courses to increase their cumulative average or choose another major, both of which lead to longer time to graduation.

2.4 First Year Course Attrition/Course Success Rates

Successful course completion plays a role in both retention and time to graduation. At the beginning of the Fall 2001 semester, there were a total of 9,912 course registrations taken by full-time new matriculants. After the drop period, there were 9,675 course registrations, and by the end of the semester only 8,653 course registrations were completed successfully. Overall, 15.1% of courses attempted by new matriculants were either dropped or failed.

Relatively high levels of course failure and in-semester attrition, combined with a large number of students who start a semester with less than a full course load, mean that many students finish first year with less than 30 credit hours completed. In fact, by the end of the Winter 2000 semester, only 38.7% of new full-time matriculants had successfully completed 10 courses. In many cases this will result in longer degree completion times.

Some students choose fewer courses in order to seek part-time employment to reduce financial pressures. It will be interesting to see how recent changes in student loan regulations with respect to course load will weaken this motivation and affect student performance and time to graduation. However, overall performance is also related to difficulties in successfully completing specific courses. In the Fall 2000 semester, there were 11 first year courses that had failure rates in excess of 20%, many of which are high demand courses such as Biology, Chemistry and Mathematics. Memorial needs to develop strategies to improve student success in these courses as a means of facilitating progress through a program of studies.

2.5 First Year Student Survey

The preceding sections present empirical information which suggests that improvements in academic performance, retention, and graduation rates are desirable for ultimate success. However, only a limited amount of information about the underlying causes can be deduced. This information gap had to be addressed before a comprehensive
strategy could be drafted.

In the Winter semester of 2001, the Centre for Institutional Analysis and Planning (CIAP) conducted a survey of first year students on the St. John’s campus. The objectives of this survey were to learn more about the experiences of first year students, to provide insight about where students are encountering problems, and to identify subgroups of students who might benefit from major retention initiatives. The survey was administered to 726 students who were queried about their reasons for attending Memorial; choice of program; transition and adjustment to Memorial; integration into the university; preparedness for university; study patterns; use of resources; employment, living arrangements and financial sources; and overall satisfaction. A detailed report of the methodology and findings is available on-line at: http://www.mun.ca/ciap/fye.pdf

Two significant issues that students noted were the difficulty of making their transition to Memorial and the time needed for that transition. Overall, 29.2% said the transition was more difficult than expected, 52.1% said it was about what they expected, and 18.7% said it was easier. With respect to the time required to adjust, over 35% said the adjustment took a full semester or more. In general, both the degree of difficulty and the time required to adjust were positively associated with first semester performance. Proportionately more students in the lower high school average groups found the transition difficult. Fewer students living off-campus with family found it difficult (23.6%), when compared to other off-campus arrangements (38.4%), and residence (31.8%). More urban students found the transition easier than expected (24.9%) than did rural students (12.9%).

Academic performance in high school and the first semester seemed clearly related to the responses to some of the questions. Students who entered Memorial with better high school averages were more likely to say that the transition to Memorial was shorter and easier than anticipated. Students who performed well in high school were also more likely to rate their skills highly.

Respondents were asked to identify anything that helped them adjust to Memorial. The three most influential factors mentioned were family/friends /other students (39.9%), residence (12.7%) and time (12.4%), which totaled 65.0% of all responses. Given the importance students place on development of friendships and personal contact, it is impossible to ignore these in any plan to enhance student success.

Students were also asked to identify the more difficult aspects of their first semester. The most frequently mentioned issues were the difficulty of course work (38.3%), the amount of work (37.4%), and the different study requirements (32.0%). On a separate question, many also indicated they were not well prepared to exercise important skills such as time budgeting (25.6%), effective library use (36.7%), class speaking (24.4%), and math (21.3%).
There were demographic differences with respect to preparedness issues. For example, more urban students (66.0%) felt they were well prepared in the interpersonal skills area as compared to rural students (53.3%). Further, male respondents more frequently indicated that they were well prepared in math skills, speaking in class, problem solving and interpersonal skills while female respondents were more likely to say they were well prepared for note-taking and study skills.

Two final areas of consideration are achievement and overall satisfaction. A significant number of students (35.6%) indicated that their performance was not as good as they had expected. In terms of overall satisfaction, 73% of students were either satisfied or very satisfied with Memorial. While this percentage seems high, it also indicates that more than one in four students did not rate Memorial highly. This should be an issue of considerable concern for the university as it determines appropriate actions.

3.0 Guiding Principles, Objectives and Goals

Several key messages can be drawn from the information outlined in the previous section. Student success in first year is a strong indicator of future performance. It is also clear that some of the problems that occur in later years, such as large numbers of undeclared majors beyond first year and low retention and graduation rates, can be traced to relatively poor first year performance. The information also suggests that the university should try to pay special attention to rural students, students living off-campus in non-family situations, and students with lower admission averages.

The first year student survey provides insight as to why some students experience difficulties. Many students find adjusting to university takes more time and is more difficult than they expected. There also appears to be a significant gap between the level and amount of work expected in high school and university. Students do not feel they are well prepared in such critical areas as time-budgeting, library use, note-taking and math skills.

Memorial’s retention and graduation rates could clearly be better. The analysis raises the question “How do we improve the academic performance and success of our students within a framework of high standards?” The answer demands a comprehensive approach which addresses the specific problems identified from a foundation of guiding principles.

The principles must be sensitive to the needs of students while respecting the culture of the institution.

A university-wide approach. The literature suggests there are a number of critical factors in developing student success programs, but the most important is a broad institutional commitment. Unless the university at large accepts the fact that the success of its
students is an institutional priority, major improvements will not occur. In the past, Memorial has been quick to point out that there are gaps in the abilities of students, but systematic efforts to address these gaps have been rare. The problems encountered often have their origin years before the student enters Memorial, but we have an active role in finding solutions.

**Local responsibility.** A global focus on student success is crucial, but responsibility has to be exercised in local areas. Academic units and support groups must “act locally” within the global framework if Memorial is to be successful in this effort.

**Enhancing student success is tied to raising standards and increasing expectations.** The development of a student success plan should presuppose high expectations by everyone for both teaching and learning. The plan seeks a learning and social environment that provides our students every opportunity to be successful. It strives for a renewed institutional commitment to the educational standards espoused in our strategic framework and challenges everyone to find ways to improve the climate for teaching and learning.

**Students play a critical role in their own success.** Student success is a shared responsibility that must engage all those involved — students, parents, faculty, staff, academic units and support units alike. However, the pivotal role is played by the student. Students actively engaged in the learning process are more likely to do well. The role of the university is to make the learning environment conducive to such engagement.

**Support for all students is essential.** A “sink or swim” mentality that suggests that students either make it or they don’t simply is not an acceptable approach within a social and political order that seeks to maximize participation in higher education.

**Stronger collaboration with the K-12 system and government is necessary.** Many students entering Memorial do not have the skills required for success. Only collaboration between the university, the school system and the government on such issues as curriculum development and university preparedness will remedy this shortcoming. The university must participate in collaborative partnerships that promote policy development.

**Creativity and flexibility are essential.** Nothing in this plan is ‘etched in stone’. It aims to design a dynamic and evolving series of actions to meet the established goals and objectives and must be monitored, evaluated and modified on a regular basis.

**Consultation, communication and coordination are critical.** Implementation of any plan to address student success must ensure that the principal participants are consulted regularly, that communication about student success related issues is regular and effective and that all actions are well coordinated.
Success will take time. Elements of the plan will anticipate some cultural adaptations that will require time. Some of the proposed actions will also require a number of years for desired results to be realized. These needs must be balanced carefully against the need for immediate improvement.

New initiatives will both require and generate additional resources. Funding will be necessary for some of the initiatives described in this plan, but it should be covered by the enhanced revenues resulting from better rates of retention and completion.

The above principles are consistent with three major aspirations:

1. To enhance the learning and social environment so that it is conducive to fostering the academic success of Memorial students.

2. To assist students in becoming more self-reliant, self-confident and better able to cope with the realities of the university experience.

3. To build, recognize and reward a culture of academic success among students, faculty and staff.

The development of goals is a challenging task, demanding appropriate balance between quantifiable statements of outcomes and less easily quantified measures that are of at least equal importance. In this spirit we review the three broad objectives of the student success plan stated in the introduction to this report and attempt to describe what successful implementation of the plan would mean.

Improved retention through enhanced academic performance. If the plan is successfully implemented, the proportion of students who complete their first semester of studies with an average in excess of 60% should increase considerably. Failure rates in the first semester should ultimately decline to approximately 5% without any relaxation of academic standards. The gap between high school and first year performance, currently at about 19 percentage points, should perhaps decrease by as much as half. Students from rural and urban areas should perform at increasingly similar levels and failure rates for males lessen, moving closer to those of females. Retention of students into the fourth year of studies should increase from the current levels of about 60% to 75%.

From a more qualitative standpoint, students should develop a clearer, earlier understanding of the nature of the university experience, both socially and academically. They should have had the opportunity to realistically assess their readiness for university level courses while still in high school and, where found lacking, find material to help them address specific problem areas. Orientation and other transitional activities ought to be tailored to specific needs which should reduce the time required for students to adapt to the university environment to an acceptable minimum.
*Improved time to graduation.* Failure rates in first year courses, particularly in “problem courses” ought to decline appreciably, meaning fewer courses will have to be repeated. Rates of course abandonment would also be expected to decline. Students would be prepared for a full course load in any given term, making them more likely to complete programs in a timely fashion, albeit some may have good reasons for taking longer. Fewer students would fall into the undeclared major category and, having entered programs, will progress steadily towards graduation. Academic advising, counselling, and other services should be involved from the earliest stages of a student’s academic career to ensure students have the help they need when they need it to avert costly “academic crises” before they occur.

*Graduation rates.* Graduation rates ought to improve to the point that at least 65% of any entering cohort enrolled in a four-year program should ultimately graduate, with the majority completing within five years. This rate should be 85% in the programs with competitive entry. Students should leave their programs with high levels of competence in their chosen areas and with high levels of satisfaction.

### 4.0 Strategies and Actions

Most institutions that have been successful in developing effective plans have addressed a number of broad areas systemically and patiently. The Working Group agrees with this approach. Improving student success at Memorial is a multi-dimensional challenge that will require a variety of actions and some significant redirection of effort.

The strategies and actions that follow were developed in consultation with the Academic Deans and with Senate through special meetings held in 2001. The actions identified are categorized into eight priority areas for institutional response:

- Enhancing Coordination and Strengthening the University/Student Partnership
- Focusing on “Problem Courses”
- Identifying and Assisting “At-Risk” Students
- Eliminating Systemic Impediments
- Enhancing Academic Advising and Counselling
- Meeting Information Needs
- Developing Faculty-Student Community
- Recognizing, Supporting and Rewarding Excellence and Innovation

A means of priorizing and implementing these actions is outlined in Section 5.0 of this report.
4.1 Enhancing Coordination and Strengthening the University/Student Partnership

One of the first tasks undertaken by the Working Group was a compilation of student retention and success activities currently practiced at Memorial. The scope of these activities is quite extensive, but many of them (such as help centres and web-sites) were relatively unknown to students. There also appeared to be similar or complementary activities being undertaken by a variety of groups operating in isolation from each other, particularly at the academic unit level, where synergistic relationships might be developed. Questions of coordination and communication naturally arose. Because no one organizational entity has responsibility for student success, opportunities for effective collaboration are missed.

Action 1: The Enrollment Planning Working Group should assume responsibility for the coordination of student success activities at Memorial. The Group will be responsible for ensuring that actions emanating from this plan are delegated to the appropriate area(s) and that activities that are common to multiple organizational entities are well coordinated. The Group should also monitor the progress of the plan and recommend adjustments deemed necessary.

One of the first tasks to be overseen by the Group should be a more detailed mapping of student support system processes throughout Memorial to determine where gaps, inefficiencies or redundancies exist. The goal would be to produce a system whereby objectives are well understood, linkages are well established and efforts to assist students are as seamless as possible.

Coordination is a key role, but the importance of the strong partnership that must exist between the student and the university is even more critical and has to be recognized in a fundamental way. This document prescribes a number of initiatives designed to help students succeed, but as noted in the previous section, students play a critical role in their own success. Unfortunately, many students entering Memorial do not have a clear sense of what to expect of the university or what is expected of them until it is too late.

Action 2 The university should form a group to develop a “bill of rights and responsibilities” document for students that clearly outlines what they should expect from the university and what in turn the university expects of them.
4.2 Focusing on “Problem Courses”

Research shows that a most effective approach to enhancing student success and academic performance lies in focusing on courses where students traditionally experience difficulty, especially in the first year. We propose to emulate many universities that have developed programs of supplemental instruction for “problem courses”, defined as ones where the percentage of students receiving a “D” grade or less is 30% or greater. Where optional tutorial sessions that teach discipline specific learning strategies are open to all students, no stigma is attached to participation and performance improves. Sir Wilfred Grenfell College has experimented with a form of supplemental instruction for the past several years.

Action 3: A system of supplemental instruction should be piloted on a small but pan-university scale. If the methods are successful, a broader system will be put in place for all courses where the percentage of students receiving grades of 55% or less exceeds 30%.

There are subject areas where the skills gap between high school and university is such a major impediment to success that a program of supplemental instruction cannot fully address it. Earlier intervention in areas where the need to remediate serious deficiencies is known should begin where possible by the beginning of Grade 11. Building the necessary relationships and working through the complex issues involved has begun in some areas, but will take time to complete.

Action 4: The university will seek to develop improved means of closing the skills gap that currently exists between high school and first year university in subject areas such as mathematics and chemistry. These efforts should build on current efforts in mathematics to forge stronger partnerships with the school system and the Department of Education in order to address curriculum, university preparedness and transition issues.

4.3 Identifying and Assisting “At Risk” Students

A complementary approach to focusing on problem courses is to work with groups of students who are more likely to experience difficulty in their first year of studies, including students with lower high school averages, rural students, aboriginal students and mature students. The university’s state-of-the-art student information system has features that make it possible to put in place an advanced system of early warning and intervention. These students can be identified before their arrival on campus so that the Academic Advising Centre can institute regular communication aimed at detecting problems and channeling students to appropriate help mechanisms.
Action 5: Categories of “at risk” students should be followed by Academic Advising from the commencement of classes so that problems are detected early and dealt with expeditiously.

There are a number of special cases of at-risk students that warrant specific mention. One such case is chronic absenteeism, resulting in students failing to master essential course material. There should be a mechanism put in place to ensure that students who are frequently absent from their courses are contacted by Academic Advising or Counselling.

Action 6: A mechanism for identifying students who are frequently absent from class needs to be developed, and faculty members teaching first year courses should be strongly encouraged to contact the Academic Advising Centre and the Counselling Centre to initiate appropriate action.

Undeclared students and pre-majors who are beyond their first calendar year of studies constitute another “at risk” group. Most of the actions outlined in this report are aimed at first year, but the undeclared group is so significant that it requires particular attention. Students who declare a major are less likely to encounter difficulties than students who are unable or unwilling to do so. Undeclared or pre-majors do not have the benefits of an academic “home” and as a result, they sometimes do not receive the attention they require. A number of these students delay declaring in the hopes of being accepted into a program for which they do not have a realistic chance of admission.

Action 7: The university should track undeclared students after their first calendar year of studies. The Academic Advising Centre should be mandated to develop aggressive advising and counselling regimens to ensure these students receive the help they need. When students are denied admission to a program, Academic Advising should be notified and then make contact with the student to help them develop alternatives.

Students who have admission averages between 70 and 75% often have difficulties adjusting to the academic rigors of university and can benefit from early attention to the intellectual skills they will need.

Action 8: A voluntary summer bridging program should be put in place for students with admission averages between 70% and 75% to assist them in making the transition to Memorial.

Even very good students encounter significant difficulties that do not become apparent until well into a semester. Interviews with first year students indicate that they would like to receive earlier and more frequent feedback in their courses. It is possible to store the results of in-semester examinations on the student registration system but only about one-third of professors use this feature. With better utilization, the information could be
used to trigger a response from Academic Advising when students exhibit difficulties. A commitment from faculty to provide earlier evaluation and to ensure that results are keyed to the student administration system would be required. Alternatively, faculty members would simply “flag” students who they observe to be encountering difficulties.

Action 9: The university should encourage faculty members to provide substantive feedback to first year students by the end of the sixth week of classes. The results, or alternative indication of students experiencing difficulty, could be recorded on the student registration system so that Academic Advising can work with students who need help. At a more local level, academic units need to be encouraged to develop means of assisting students once problems have been identified.

Memorial currently offers a number of special programs, the main focus of which are courses designed to help students make the transition to the rigors of university. Arts 1200 is run by the Instructional Development Office, with a grant from the McConnell Foundation, and UCC 2020 is offered by the Counselling Centre, and UNIV 1010 is offered at SWGC. It is anticipated that these programs, or programs like them, will prove useful in helping students, but both are relatively young and their effectiveness in facilitating student success is not yet completely clear.

Action 10: The university should monitor the long and short term impact of Arts 1200, UNIV 1010, and UCC 2020 with the goal of determining whether these programs are effective in helping students make the transition to university.

Research has shown that students in the early stages of their academic careers can often benefit from having a senior student serve as a mentor. Memorial has had some success in this area, though efforts to date have been on a relatively small scale.

Action 11: Student mentoring programs need to be expanded to allow more students in the early stages of their academic careers to benefit from them.

4.4 Eliminating Systemic Impediments

A number of impediments or potential impediments make it more difficult for students to progress through their programs in a reasonable manner. They affect both graduation rates and time-to-completion, giving the university an interest in removing obstacles in its programs and procedures that impede the progress of students.

Currently, few of Memorial’s programs allow students to enter directly from high school, but evidence suggests that students who enter programs earlier in their academic careers benefit from having this academic “home” and develop a stronger connection to the university. Direct entry into academic programs (with appropriate promotion
requirements) is one means of addressing this situation.

Action 12: The Senate Committee for Undergraduate Studies should be asked to examine the issues regarding direct entry into all programs and develop proposals for implementation.

Many of Memorial’s programs have a system of prerequisites that, when combined with a schedule of course offerings, make it virtually impossible for a student to graduate in the “normal” completion time. A sub-committee of the Planning and Budget Committee is currently developing a report that examines this issue, but ultimately responsibility for improvements resides with the academic units.

Action 13: Academic units should examine the structure of their programs, including course pre-requisites and co-requisites, to ensure they permit reasonable and timely progression. When programs are found to embody structural impediments, adjustments should be made.

Another impediment may lie in the structure and content of first year mathematics courses. Most academic programs require reasonable numeracy, but many do not require the rigorous mathematical skills needed in disciplines such as engineering and the sciences. However, for the most part, it has been ‘one size fits all’ with respect to entry level mathematics at Memorial. Consideration should be given to the use of specialized math courses for different programs.

Action 14: All academic units ought to examine their entry level mathematics requirements and in consultation with the Department of Mathematics and Statistics determine if alternative math courses should be developed.

4.5 Enhancing Academic Advising and Counselling Services

Many of the actions in this plan directly or indirectly assume a heightened level of academic advising and counselling at Memorial. The actions also suggest a philosophical shift in how academic advising and counselling is approached. With a few exceptions, Memorial’s academic advising system operates by self-referral, with responsibility for seeking academic advice being left to students who may not understand they need it. We recommend more onus on the university to make initial contact.

Academic advising at Memorial is largely decentralized. The Academic Advising Centre serves as a focal point for first year and undeclared students and reports formally to the Registrar and informally to the Deans of Arts and Science. However, a significant portion of academic advising is performed by faculty members, particularly with respect to selection of courses. This makes coordination challenging.
More proactive and coordinated means of advising and counselling need to be seriously considered. It is therefore time to consider whether the current model can meet the new demands that may be placed upon it and, if not, how it should be reconfigured to best meet the needs of our students.

Action 15: Memorial University should undertake a major review of its current academic advising system to determine how the new challenges that have been set out in the student success plan can be satisfactorily addressed.

Counselling has the potential to play a major role in student success at Memorial. Students who experience difficulties need to know there is somewhere they can turn to receive professional advice. The Counselling Centre does a good job in meeting the needs of the students it sees, but the first year student survey shows that many students are not aware of the Centre or its services.

Action 16: The Counselling Centre should undertake a review of its mandate and operations in light of the actions outlined in this plan. It should place particular emphasis on examining how it promotes its services within the university community.

An area of need that has received little attention at Memorial is financial advising. Many of our students have high levels of accumulated debt that are a tremendous source of stress. These stresses are likely to increase in the near future as Government begins to more strictly enforce regulations about debt limits and time-to-graduation. Students should be able to receive advice about their loan situation and loan regulations in general to ensure they are making optimal use of their funding. Many of them enter university with very limited money management skills and will benefit from a program that identifies principles of sound financial management.

Action 17: The university should work with the Provincial Government to develop appropriate financial advising services to help students better manage their debt loads and provide short courses in budgeting and money management to first year students.

The literature shows that students’ ability to link their academic goals to career goals increases their tendency to graduate. Memorial needs to develop a stronger process of helping students make these linkages.

Action 18: The Centre for Career Development should seek to develop partnerships to assist students in developing linkages between their academic and career goals.

Students often have difficulty in determining who they should contact with specific questions. This can lead to confusion and create anxiety that could easily be avoided.
Action 19: Prior to entry, each student should be assigned a primary contact to help them find solutions to any problems that arise. This person would need to have sufficient knowledge to direct the student to the appropriate area for help.

4.6 Meeting Information Needs

Information is a key success factor for students seeking to make successful transitions from high school to university. Today’s students are more technology-conscious than ever and frequently use the world-wide web as their primary information source. Memorial has recognized the strategic importance of the web in reaching its students, and its Web Implementation Committee has helped to ensure that the information students need is accessible, well organized and up-to-date, including development of a dedicated web-based interface or portal.

This development would help address information gaps, including academic expectations at Memorial. Beyond general information provided by teachers and guidance counsellors, it is not easy for high school students to obtain specific information about these expectations. Students should be able to obtain this information and have a means of testing their preparedness. Once identified, there should be a means of addressing weaknesses on-line.

Action 20: Memorial’s web page requires upgrading to provide better information and clearer links to information for new students. The student portal project should be fully implemented, and web-based materials, including lists of basic competencies for entering students, should be made available to assist students in assessing their readiness to pursue specific subject areas. Optional preparatory courses and self-guided tutorials need to be developed on the web as a means of allowing students to address problem areas.

Students learn a great deal about Memorial from secondary school teachers or guidance counsellors whose perceptions of the institution often date back to their own experiences as students. Many of these perceptions have become outdated, making it important to provide teachers with accurate current information about skill requirements and campus.

Action 21: Secondary school teachers and guidance counsellors should have better access to information about the university.
One of the best opportunities that Memorial has to provide information to prospective students is provided by the Spring interview process. It is important for this process to provide students with the best possible introduction to Memorial.

Action 22: Evaluation of the Spring interview process, currently being piloted by Academic Advising, ought to be an annual exercise in order to ensure that the process continues to meet the ever-changing needs of students.

The first year experience survey indicates that participation in orientation activities and first semester performance are positively associated. While it was not possible to establish a cause and effect relationship between orientation and student success, the literature does indicate that students who are more familiar with their environment make the transition to university faster and easier, leading to better performance. In recent years, orientation has become more prominent at Memorial, but more needs to be done to ensure that students integrate into the university community with minimal effort.

Action 23: Orientation experiences that address the social as well as the academic needs of the various segments of the incoming class, such as rural students, male students, and students with lower admission averages, need to be established. The relationship between orientation and student success will be monitored to create a more evidence-based assessment of effectiveness.

Many first year students report that their library skills are not strong, making it desirable to broaden the partnership between the library and faculties. A small portion of a first year English course might constructively be devoted to the development of library skills.

Action 24: The library and academic units need to work to improve connections between library services and course requirements in order to enhance the library skills of students, particularly those in first year.

4.7 Developing Faculty-Student Community

The Working Group was told by first year students that a stronger sense of community would be highly beneficial to their transition to Memorial. It is clear that students are more likely to engage seriously with the university if they have more opportunities to interact with faculty in non-classroom situations. At present, there are a few occasions of this type, especially for first year students.

Action 25: Memorial should work to encourage a better sense of community by seeking to increase opportunities for positive interaction between faculty and students beyond formal academic situations.
There is evidence to suggest that students develop a beneficial sense of belonging when they are able to develop a “support system” of friends and acquaintances. Many institutions have been successful in facilitating the development of these relationships by creating “enrollment clusters”, whereby first year students attend most of their classes with the same group of people.

**Action 26:** Memorial should develop a pilot program for enrollment clustering to determine whether there is merit in developing a broader system for first year students.

Student societies in many of the professional schools play a major role in defining how their students identify with and develop affinity for Memorial. With some exceptions, societies outside the professional schools tend to be less effective.

**Action 27:** Academic units should be encouraged to take an active interest in the development and continuity of student societies and in ensuring their effectiveness as instruments for developing a stronger student connection to their chosen disciplines.

Identifying, nurturing and involving student leaders contributes to a retentive environment. Early recognition of student leaders and programs designed to develop student leadership have been established at Memorial. Building on the initial successes should be beneficial for overall student success.

**Action 28:** Memorial needs to maintain and enhance its student leadership programs.

Faculty development is an area that has generally not received the attention that it merits, particularly when it comes to new faculty members. The Working Group is however encouraged to see that this problem has been identified by a number of faculties and schools as a strategic priority. Many academic units have developed a practice of providing new faculty with a mentor whose primary function is to help them get “set up” at the institution. However this practice is not universal and mentors are left to their own devices with respect to how the mentoring process should unfold.

**Action 29:** All new faculty members should be assigned senior faculty mentors who can provide invaluable advice that is critical to the people in the initial stages of their academic careers. Faculty members should also be provided opportunities to learn more about effective mentoring.

New faculty are often faced with the prospect of having to advise students within weeks of their arrival at the university and struggle to find answers to the questions that students ask. Orientation for new faculty does occur at Memorial, but until recently it has been somewhat sporadic in its nature and content. This year, a more coordinated approach to this issue has been taken that has shifted from one half-day session to a series of sessions
spread out over a full academic year. Preliminary indications are that this process is being very well received by faculty.

Action 30. The new orientation process for faculty should be formally adopted and enhanced by using input received from participants. New faculty need to be provided with up-to-date information regarding the most frequently asked questions they are likely to hear from students to ensure they are able to provide accurate advice.

4.8 Recognizing, Supporting and Rewarding Excellence and Innovation

If student success is to gain a more prominent place in the university culture, those who contribute to it should be recognized and supported. Activities in the academic units are naturally diverse, since practices that are successful in one discipline will not necessarily be successful in another. However, there is merit in providing opportunities for people in the academic units who are involved in student-success related activities to find ways of sharing successful practices, looking for areas where collaboration may be possible.

Action 31: The Enrollment Planning Working Group will develop mechanisms that allow people from across the university to compare best practices. One such mechanism would be a resource website for student success.

One means of encouraging innovative practices aimed at enhancing student success would be provided by resources that would allow academic units, support units or individual faculty members to seek support for special projects.

Action 32: A fund will be established to assist those who wish to undertake special initiatives to improve student success. This fund will be jointly funded by the Vice-President (Academic) and the Dean of Student Affairs and Services and will be allocated annually.

It is impossible to over-emphasize the importance of the role of teaching excellence when it comes to the success of our students. Memorial has an award for outstanding teaching, but it recognizes only a very small fraction of faculty. If the award system was expanded to create multiple levels of awards, it would be possible to bestow special recognition upon the very best teachers, while allowing broader and more frequent recognition of good teaching.

Action 33: Memorial should review its current teaching award schemes with the objective of expanding the number of recipients while still providing special recognition for the very best teachers.

Recognition of outstanding teaching should go beyond the designation of special awards. Memorial needs to take more seriously the provisions in the collective agreement with
respect to teaching excellence as a criterion for promotion and tenure. The university should also seek to ensure high standards and consistency in course delivery, particularly at the first year level. The process for universal course evaluation may prove particularly useful in this regard.

Action 34: Memorial should create a task force to determine how teaching, particularly at the first year level can be made more effective.

Rewarding excellence in teaching and effective student-success practices should not be limited to individuals. Memorial should promote the concept of group awards for faculties and schools exhibiting best practices in enhancing student success.

Action 35: The university needs to develop a means of recognizing and rewarding effective student-success practices by academic units, support units or groups.

5.0 Implementation, Responsibility, Resource Implications and Evaluation

Operational responsibility for the implementation of this plan resides with the Enrollment Planning Working Group. Its first responsibilities will be to determine the relative priority of each action, and to work with the appropriate academic units and academic support areas to further develop implementation plans and completion targets. This will ensure that the people responsible for making the plan work have significant involvement and commitment to the actions being undertaken. The Working Group will also determine the budgetary ramifications for implementation of specific recommendations.

A critical element in the implementation of this plan is its regular evaluation and assessment. The Working Group, in consultation with Student Affairs and Services, the Registrar’s Office and the Centre for Institutional Analysis and Planning will develop a series of indicators designed to measure the extent to which Memorial is achieving its stated goals. It will also be responsible for preparing an annual report to the Senate Committee on Undergraduate Studies, to Senate and to the university community outlining the progress made to date and for reassessing the plan on a regular basis, and making adjustments as deemed appropriate.

In the fullness of time as the university implements the initiatives outlined in this report and assesses the outcomes, other critical issues currently beyond the scope of this report will come into clearer focus. For example, it is anticipated that a report outlining strategies that focus more on students beyond first year may be a necessity. The issue of graduate student retention is also worthy of significant examination. Over the coming months, the Working Group will attempt to develop information in these and other areas as they are identified.