



**Undergraduate Medical Education  
Cumming School of Medicine  
University of Calgary**

**Curriculum Review**

**Public Report**

**July 2016**

# Program Background

The Faculty of Medicine of the University of Calgary was founded in 1967, with the first class of 32 undergraduate medical education students beginning in 1970 in a unique three year curriculum. The current enrolment of new students is 155 which has decreased from peak enrollment of 180 for the class of 2012 due to a reduction in government funding. In 2014, the Faculty was renamed the Cumming School of Medicine (CSM) in recognition of a \$100m donation by Geoffrey Cumming, which was matched by the Province of Alberta.

The three year program is comprised of pre-clerkship courses (Years 1 & 2) and clerkship clinical experiences (Year 3). Required courses dominate Years 1 and 2 of the program, with 4 weeks of course electives occurring at the end of Year 2. The instructional formats for Year 1 and 2 courses include lectures, labs and small group work. In Year 3, students rotate through 8 required discipline-specific clinical learning experiences at various clinical instruction sites (eg. hospitals, clinics, etc), -with 12 weeks dedicated to clerkship electives. Students in Year 3 are also required to complete Course 8 – Comprehensive Clinical Skills Curriculum for Clerkship. There is also the option of participating in the University of Calgary Longitudinal Integrated Clerkship (UCLIC) which allows students to experience 9 months of their clerkship at one rural site, with the remaining 3 months completed in the traditional stream. The learning objectives and evaluations are the same for UCLIC and the traditional program.

The school's original undergraduate curriculum used a 'Systems-Based' curricular model which encouraged interdisciplinary teaching with equal time allocated to didactic sessions, small group case-based learning and independent study time. Building on the strengths of this curricular model, the medical school modified its curriculum to a 'Clinical Presentation' curriculum in the mid-1990s. This innovative model, which has now been adopted by over 15 other medical schools worldwide, structures teaching around the 120+/- 5 ways a patient can present to a physician.

Faculty and students recommended changes beginning in August 2006 that further strengthened the curriculum. Courses were linked to graduation objectives (see <http://www.ucalgary.ca/mdprogram/about-us/big-10-graduation-educational-objectives>) and UME program philosophy of teaching, learning and evaluation. Linkage of courses better integrated Clinical Presentations across systems (horizontal integration), emphasized schemes as a powerful knowledge organization teaching tool, and reduced redundancies. Significant changes occurred to the evaluation process, with reduced frequency of summative examinations in the pre-clerkship, increased frequency of formative examinations, and specific time allotted for faculty assisted review or independent study prior to each certifying exam for most pre-clerkship courses. Improvements to the curriculum continue to be made on a regular basis based on course evaluations, instructor feedback, and external accreditation requirements.

## Curriculum Review Process

The Undergraduate Medical Education (UME) program recently completed a mandatory accreditation review by the Committee on Accreditation of Canadian Medical Schools (CACMS) and Liaison Committee on Medical Education (LCME) in the US. This extensive process is conducted every eight years, and evaluates many aspects

of the medical school including curricular content, evaluation, student assessment, and student-related issues, as well as overall Faculty organization, resources, planning and policies.

Preparation for the accreditation-mandated Medical School Self-study (MSS) began in early 2014, with the establishment of the Accreditation Steering Committee (ASC), as well as sub-committees responsible for specific accreditation standards and documentation, which included faculty members and staff with relevant expertise and content knowledge on each sub-committee. Sub-committees were responsible for completing the Data Collection Instrument (DCI) which is essentially a database of information regarding the UME program that requires compliance with 12 CACMS Standards comprised of 95 Elements, many of which are curriculum related.

Medical students had a significant role in this process, which included membership on the ASC and sub-committees. Student leads were also required to organize the Independent Student Analysis (<http://cumming.ucalgary.ca/2016accreditation/files/2016accreditation/csm-isa-final-.pdf>) which is a survey and report of student perspectives on the educational program including courses and curriculum, student support services, and the environment for learning. An aggregate 90% response rate was achieved across the three classes, strengths and weaknesses in the UME program were identified, and recommendations were made to improve the program.

In November 2015, all accreditation documentation (<http://cumming.ucalgary.ca/2016accreditation/files/2016accreditation/university-of-calgary-self-study-report-2015.pdf>) was submitted to CACMS in preparation for the accreditation site visit from February 28-March 2, 2016. The site visit team reviewed the accreditation documentation, and held meetings with faculty members, medical students and staff. Based on the information collected, the team composed a written report with recommendations on whether CSM was compliant with the CACMS Standards.

This extensive review process is intended to be an exercise in quality assurance and improvement, with goals similar to the curriculum review mandated by the Office of the Provost. Although the curriculum review format required by the Office of the Provost was not used, this Public Report provides an overview of the process and findings of the accreditation review which is inclusive of all the components of a curriculum review. The “guiding questions” are dictated by CACMS, but include curriculum mapping activities, identification of strengths and weaknesses in the program and curriculum, and result in recommendations intended to improve the program. Outside of the 8 year accreditation review, UME curriculum review occurs on an ongoing basis by UME internal committees responsible for the curriculum.

## Major Findings

The UME program has again been granted continued accreditation by CACMS and LCME for the maximum time of eight years, without the need for additional site visits which have recently been required of a number of Canadian medical schools. This continued accreditation status speaks to the many strengths of the program. The full report can be accessed at: <http://cumming.ucalgary.ca/2016accreditation/files/2016accreditation/1-cumming-school-medicine-full-site-visit-report.pdf>.

There are three Elements that CACMS/LCME found to be “Unsatisfactory”, and require corrective action. Although these Elements are not curriculum-related, they are listed here:

<b>Element</b>	<b>Finding</b>
1.4 – Affiliation agreements.	There is no affiliation agreement applicable to medical students for Stanton Territorial Health Authority (NWT).
3.3 – Diversity, pipeline programs and partnerships	There is no evidence of ongoing, systematic and focused recruitment and retention activities at the faculty and senior leadership level of Aboriginal, visible minorities and persons with disabilities. The Committee notes that the Cumming School of Medicine is however doing excellent work with regards to student diversity.
12.5 – Non-involvement of providers of student health services in student assessment	The Cumming School of Medicine has a policy to address the non-involvement of providers of Student Health Services in student assessment. The policy does not delineate the responsibility of the faculty and the school, and leaves the onus on the student. Discussions with faculty during the site visit indicated a lack of awareness of this policy.

There are seven other Elements that were rated as “Satisfactory, with a need for monitoring”. Issues regarding these Elements had been identified by the CSM during the self-study process, with corrective actions taken prior to the accreditation site visit. However, as the implemented solutions are relatively new, CACMS requires additional data to ensure that the issues have been resolved.

<b>Element</b>	<b>Finding</b>
3.2 - Community of Scholars/Research Opportunities	A repository of research opportunities was recently created. There are no data yet on the effectiveness of the repository at improving first and second-year student awareness of research opportunities.
3.6 – Student Mistreatment	Recommendations of the Student Mistreatment Task Force have been largely adopted and implementation is underway. The student body views these efforts positively. Data on delivery and impact is not yet available.
6.3 – Self-Directed and Life-Long Learning	Students expressed a high level of dissatisfaction with the amount of study time available for self-directed learning.
9.4 – Assessment System	There has been improvement in the direct observation of students taking history and performing physical examinations during the Surgery clerkship, as evidenced by mid-year end-of-rotation evaluations from the Class of 2016. This needs to be monitored for sustainability.
9.7 – Timely Formative Assessment and Feedback	Surveys (GQ, ISA and end-of-rotation) indicate that students were not consistently receiving formal mid-point feedback in the Surgery clerkship. Strategies to improve this were implemented in 2015.
11.2 – Career Advising	Additional activities addressing student satisfaction with guidance when choosing electives have recently been implemented. Data on the effectiveness of these activities are needed. This has been a recurrent concern.
12.1 – Financial Aid/Debt Management Counseling/Student Educational Debt	Debt is higher than the national average. A Financial Literacy curriculum was implemented in October, 2015 and is being further developed. This needs to be monitored for effectiveness.

All of the remaining 85 Elements were rated as “Satisfactory” by CACMS.

## ACTION PLAN

An action plan was created immediately upon receipt of the report from CACMS, and a follow-up report to CACMS is due in March 2018. Faculty leads have been assigned to each of these Elements, and corrective actions and data collection are already in progress for many of the Elements cited. All Elements will be addressed in the short term.

Element	Action & Progress
1.4 – Affiliation Agreements	The health authorities in the NWT are in the process of amalgamating. The affiliation agreement issue has been raised, and the inclusion of medical students in a new agreement will be pursued once the amalgamation is complete.
3.2 - Community of Scholars/Research Opportunities	Data from the Canadian Graduation Questionnaire, the annual research symposium, and end-of-year survey will be reviewed to ensure that students are aware of and have access to sufficient research opportunities.
3.3 – Diversity, Pipeline Programs and Partnerships	Additional data on CSM faculty diversity will be collected, current policies will be reviewed, and additional policies will be considered. Policies will be communicated to those responsible for faculty and leadership recruitment, with documentation of these communications. Diversity data will be reviewed regularly by senior leadership to assess whether the policies and communications have had an impact.
3.6 – Student Mistreatment	Recommendations of the CSM Student Mistreatment Task Force have been largely adopted and implementation is underway. Two Student Advisors have been appointed, an on-line safe zone has been created for reporting and information ( <a href="http://mistreatment.ucalgary.ca">http://mistreatment.ucalgary.ca</a> ), mandatory training modules are being developed for faculty and students, and data will be reviewed from end-of-year surveys to assess the impact of these changes.
6.3 – Self-Directed and Life-Long Learning	An internal task force which included student representation recently reviewed the curriculum to assess content, eliminate redundancy, and maximize independent study time (IST). As a result, the UME program now starts 2 weeks earlier, a student flex day policy has been approved, and IST is now at 30% of total time. These changes have been communicated to the students. A question identical to the IST question in the Independent Student Analysis will be added to the end-of-year survey to monitor students’ perception of adequacy of IST. Data will be reviewed from the end-of-year surveys to ensure this has been corrected.
9.4 – Assessment System	Mid-year end-of-rotation evaluations from the Class of 2016 have already demonstrated improvement in the direct observation of students taking history and performing physical examinations during the Surgery clerkship. Data will be reviewed from the Canadian Graduation Questionnaire and end-of-rotation feedback to ensure this has been corrected.
9.7 – Timely Formative Assessment and Feedback	Strategies to improve this in the Surgery Clerkship were implemented in 2015 based on student concerns, and data from the Canadian Graduation Questionnaire and end-of-rotation feedback will be reviewed to ensure that formal mid-point feedback is provided consistently.

11.2 – Career Advising	Additional activities addressing student satisfaction with guidance when choosing electives have recently been implemented. Data will be reviewed from the Canadian Graduation Questionnaire, numbers/feedback from electives sessions, and a new question in the end-of-year survey to ensure that the actions taken have been effective.
12.1 – Financial Aid/Debt Management Counseling/Student Educational Debt	A Financial Literacy curriculum was implemented in October, 2015 and is being further developed. Data will be reviewed from the Canadian Graduation Questionnaire and end-of year surveys to ensure that the new Financial Literacy curriculum has been effective.
12.5 – Non-Involvement of Providers of Student Health Services in Student Assessment	Similar policies from other medical schools will be reviewed, with possible changes to be made to existing CSM policy while still ensuring confidentiality. Evidence of student and faculty awareness of the policy will be documented.

## Communication Plan

The findings and action plan from this review will be communicated to faculty members, instructors, students and staff through announcements via email and the CSM website. Progress on the Action Plan will be reviewed by the Undergraduate Medical Education Committee and UME leadership, and communicated to senior leadership in the CSM. Required updates on progress to CACMS will occur by dates predetermined by CACMS.

## Conclusion and Next Steps

The accreditation review process has demonstrated that the Undergraduate Medical Education program has a strong curriculum and learning environment, and is responsive to the needs of students and faculty. Findings from the process now present an opportunity to continue program improvement to address the issues identified during the self-study process and in the CACMS report. The Action Plan to address accreditation concerns will be reviewed regularly to ensure that identified issues have been resolved, with interim progress reports to be submitted to CACMS (March 2018) and the Office of the Provost (mid-review cycle). This will position the UME program for continued success and leadership in the field of medicine.