



SOCIETY OF ACTUARIES

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# THE CANADIAN INSTITUTE OF ACTUARIES UNIVERSITY ACCREDITATION PROGRAM

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**THE CANADIAN INSTITUTE OF ACTUARIES (CIA)** is the national organization of the actuarial profession in Canada. Member driven, the Institute is dedicated to serving the public through the provision of actuarial services and advice of the highest quality by the profession. The Institute holds the duty of the profession to the public above the needs of the profession and its members as one of its Rules of Professional Conduct.

The CIA promotes the advancement of the actuarial profession in Canada through research, sponsors programs for the education and qualification of members and prospective members, ensures that actuarial services provided by its members meet extremely high professional standards, is self-regulating and enforces rules of professional conduct, and is an advocate for the profession with governments and the public in the development of public policy.

In light of these areas of focus and the need to respond to and anticipate changes in the business environment, the CIA wishes to ensure that the profession continues to evolve and meet the needs of future generations of actuaries in Canada. In response to this challenge, the Institute is focused on how the profession can attract the best and brightest talent to the profession now, to build a strong, unified, and sustainable Institute over the long term. One component

of this strategy is how the Institute educates and qualifies members.

The CIA recognizes the education and examination systems of the Society of Actuaries and the Casualty Actuarial Society towards fulfilling the eligibility requirements for the ACIA and FCIA designations, and values the good relationships that it has with its education partners. The CIA also recognizes the education and examination systems of other organizations through mutual recognition agreements. The CIA supplements these outsourced aspects of education and examinations with additional Canadian-specific content at the fellowship level, through its practice education course (PEC), and continuing professional development requirements. To further enhance the existing education and qualification processes, the Institute identified an opportunity to better leverage the high quality actuarial education offered in Canadian universities.

A great deal of work has been completed over the past three years by the Institute. An accreditation committee (AC) was formed in 2010 with the mandate to build upon the work that had been completed on accreditation, and to implement an accreditation program in Canada. The AC worked with the CIA staff to develop and implement the Institute's university accreditation program (UAP).

In order to have input from its education partners, representatives of the Casualty Actuarial Society (CAS) and the Society of Actuaries (SOA) were invited to join the AC as observers.

The goal of the UAP is to provide exemptions for some preliminary examinations while maintaining the strong standards of the exam-based entrance to the profession. The CIA believes that the UAP will allow for a rich and rewarding university experience that will make travel time to the FCIA designation more predictable and produce stronger, more capable actuaries for the future. The UAP policy, approved by the CIA board in March 2011, provides for exemptions for exams FM/2, MFE/3F, MLC/3L and C/4. No exemptions are available for the probability exam. Students will be required to complete the examination of the SOA/CAS/CIA for exam P/1 as well as the fellowship exams, modules and other eligibility requirements for the associate (ACIA) and fellow (FCIA) designations of the CIA.

Beginning in September 2012, accredited universities will be able to offer courses which will provide students with the option of applying to the CIA to gain exemptions from writing the examinations noted above.

The remainder of this article contains information on the criteria for accreditation,

the process followed, and the final recommendations of the AC and the Eligibility and Education Council (EEC) to the CIA board for the accreditation of the Canadian universities which met the accreditation requirements.

The AC invited 16 universities to apply for accreditation on a course basis. In order to assess whether the UAP criteria were satisfied, a separate accreditation panel (AP) was formed for each of the 11 universities that applied. Each AP generally consisted of a member of the AC, an academic and a fellow of the CIA, as well as a representative from the CIA staff. Members of an AP may not have been affiliated with the university to which they were assigned within the past three years. Each AP conducted a site visit of approximately 1.5 days in length to assess the university's application. The visits consisted of a series of meetings with key members of the faculty and, where possible, the instructors who would be teaching the courses eligible for exemption.

Discussions with program and department heads as well as the dean or dean's representative allowed the AP to assess the university's commitment to the UAP and to the long-term enhancement of actuarial education in Canada. Discussions also focussed on the university's discipline process, which must have stringent and detailed procedures in place to ensure that the integrity of grades is maintained. The AP also met with the individual course instructors and lecturers, and compared the responses of the first group with those of the individual instructors with respect to their perspectives on accreditation, their views on the importance and commitment to hiring fellows as faculty

members, and generally their commitment to their actuarial science program.

The number and type of faculty of each university are considered one of the key criteria for accreditation. The UAP policy calls for each university to have a minimum faculty complement to demonstrate a commitment to actuarial education and to the sustainability

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of the program. Typically, this requirement anticipates a faculty with at least four full-time faculty members, one of whom must hold a fellow-level designation and who will serve as the university's accreditation actuary (AcA). The AcA ensures that the courses being used for exemption purposes continue to meet the criteria and expectations of the CIA over the long term. The AcA works closely with the CIA to ensure that standards are maintained. The AcA role may be filled through a part-time or consulting role for a transitional period of up to four years. The AP met with the nominated accreditation actuary in each university to assess that individual's long-term commitment to the role, how they perceived their level of influence within the program, and their general orientation towards the UAP.

Using the learning objectives for each SOA/CAS/CIA examination, a syllabus mapping form was completed by each university for each exam in advance of its meetings with the AP. The form required the university to map its courses to all of the learning objectives,

with minimum exam syllabus coverage of 85 percent. Where syllabus coverage was less than 100 percent, universities were asked to identify what additional material would be covered to make up any shortfall. During the meetings with individual course instructors, the AP reviewed the university's course outlines against the syllabus mapping form. Instructors were asked to provide examples

of additional material taught outside the syllabus, including real-world examples to ensure that students receive a broad and realistic preview of the profession.

The university course outlines were also reviewed with respect to how the final course grade is calculated. Each course for exemption must have at least 80 percent of the final course grade coming from examination or test conditions. And, the total number of hours of examination within the courses required for exemption must exceed the number of hours of examination on the SOA/CAS/CIA examinations.

Course instructors were asked to supply exam scripts for each course as well as sample anonymous student exams for high achieving students, as well as for those who were not as successful, to determine the depth and breadth of the examination questions being used, how well the students were able to respond, and how hard or easy a particular instructor may have marked

in order to assess whether improvement in grading standards was required. In particular, the AP was interested in seeing the quality of responses from students and the corresponding marks given to students in the target exemption mark range of B or higher.

Upon completion of the AP's site visit, the panel was charged to write a report

To ensure a thorough review, the AC went back to each university to gather further historical information for each course regarding the number of students completing the course with a grade of B, B+ or A-, over the past two offerings. Typically two to three courses are mapped to each SOA/CAS/CIA exam syllabus, and students are required to achieve the minimum grade in every course to qualify for each exemption.

There is also a compound effect that needs to be considered because in most cases, a student is required to achieve the minimum grade on more than one course to receive an exam exemption from the CIA. The AC concluded that the expected number of students who will receive exemptions will likely be less than the proportion of students who pass the traditional examinations.

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using a standardized template to record the findings of the site visit and to make a recommendation to the accreditation committee.

The AC then reviewed the reports from each AP and met over two days to review and prepare their recommendation to the EEC. The AC's work included a thorough review of the estimated maximum percentage of students who would meet the minimum grade in each course required for each exemption in order to set a minimum exemption grade for each course in each university. The process for setting these grades was rigorous. In their original application, universities were asked to propose an exemption grade of B or higher for each course mapped to the SOA/CAS/CIA exam syllabus. B was chosen as the minimum requirement in order to be more stringent than the grade (B-) required for validation by education experience (VEE) within the current SOA/CAS/CIA examination structure.

The estimated number of exemptions for each course mapped to each exam was then compared to data supplied by the SOA and CAS on the overall passing percentages for each SOA/CAS/CIA exam that would be eligible for exemption. The AC also received information from the SOA for Canadian universities which included the number of successful candidates at each university-based test center for each of the exams in question. The AC noted that this data may not reflect all the students from that university writing examinations, that some students may not be enrolled in the actuarial science program but may still be writing exams, and that the statistics for some universities would be based on a rather small sample size of students. The AC also noted that there was a noticeable difference in success rates among Canadian universities. The AC attempted to recognize all of these factors in setting the minimum grade required for exemptions for each course in each university and concluded that it would be difficult to have one single grade apply to all universities and all courses.

A minimum exemption grade for each course in each university was then set by the AC that would produce an estimated number of exemptions lower than the overall passing percentage for the same SOA/CAS/CIA exams. In addition, the overall principle of keeping the final exemption grades between B and A- was applied. It is important to note that the recommended exemption grades are a starting point for year one of the program. Exemption grades and percentages will be monitored yearly against early predictions to assess whether adjustments are needed.

Upon completion of their review of the AP reports and the establishment of the minimum exemption grades, the AC prepared its report and recommendations for accreditation for consideration by the EEC. The EEC subsequently accepted the recommendations of the AC, and as a result, five universities received full accreditation (term of five years), and three universities received provisional accreditation (term of three years). Provisional accreditation provides universities with the same rights and benefits as fully accredited universities; however, some changes to the program may be required within an agreed-upon time frame.

The UAP Policy anticipated an appeal process for universities wishing to appeal the decision

of the EEC regarding their application. For each university appeal, an appeal investigation panel was formed to review the original application, the AP report and other relevant information. The appeal investigation panel prepared a confidential report for consideration by an appeal review panel, which had the authority to make a final determination. Three universities appealed the initial recommendation of the accreditation committee, and as a result of the appeal process, two additional universities were accredited.

### **SUMMARY OF THE CRITERIA FOR ACCREDITATION**

The criteria for accreditation are outlined in Section 3 of the UAP Policy, which is available on the CIA website or by sending a request to [accreditation@actuaries.ca](mailto:accreditation@actuaries.ca), and is broadly summarized below.

1. 85 percent coverage of SOA/CAS/CIA syllabus;
2. Additional material where less than 100 percent coverage;
3. Typically four full-time faculty, one of whom must be a fellow;
4. Accreditation actuary (fellow) approved by the CIA;
5. Strong testing procedures with at least 80 percent of a grade from examination-like setting;
6. Strong university discipline measures; and
7. Exemption grades of B or higher on each course required for exemption.

In addition to the policy criteria, the accreditation committee has developed guidelines for the accreditation program to aid in interpreting the policy. These guidelines will continue to evolve during the life of the program.

### **ACCREDITED UNIVERSITIES**

The following universities are accredited for courses beginning on, or after, September 2012. (Listed in alphabetical order)

**Concordia University**  
**Simon Fraser University**  
**Université du Québec à Montréal**  
**Université Laval**  
**University of Calgary**  
**University of Manitoba**  
**University of Regina**  
**University of Toronto**  
**University of Waterloo (Undergraduate and Graduate Program courses)**  
**University of Western Ontario**

### **PROCESS FOR GRANTING EXEMPTIONS TO STUDENTS**

Students who achieve the minimum grade requirement in the accredited courses will submit an application form along with official university grade transcripts. An application fee of 80 percent of the corresponding SOA/CAS exam fee will apply. The AC considered a transitional measure where students who had achieved the minimum grade in accredited courses prior to September 2012 could apply to receive exemptions from the CIA. The AC decided against recommending retroactive exemptions despite the fact that many students will feel that they have been disadvantaged. The main reason is that the courses had not been evaluated by the CIA and would not have reflected any changes requested by the CIA to meet the minimum accreditation requirements.

### **NEXT STEPS**

The CIA will appoint an external examiner for each university for ongoing monitoring and review. In addition, the CIA will maintain regular communications with the accreditation actuary in each accredited

university to provide support and assistance where necessary.

There are a number of additional actions that need to be completed to implement the accreditation program. Many participants in the accreditation process identified that some form of recognition from our education partners is a key step in the long-term success of the UAP. Therefore, gaining recognition and acceptance from the SOA/CAS of CIA exemptions is a top priority for the CIA. The AC has been actively providing information to both the SOA and CAS for their review. In addition, because the CIA uses the education and examination systems of the SOA and CAS to qualify candidates for the ACIA and FCIA designations, it recognizes the importance of ensuring a continued clear pathway for all CIA candidates, including those with UAP exemptions, to fulfill those qualification requirements.

Other program-specific activities include the recruitment and training of external examiners to be appointed to review the accredited universities, ongoing monitoring and review of the program, and the development of administrative procedures by the CIA secretariat.

Questions or comments may be directed to: [accreditation@actuaries.ca](mailto:accreditation@actuaries.ca). 

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