

The New Graduate Program at Université de Sherbrooke and the ISACA Model Curriculum for IS Audit and Control

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For the last several years, there have been market discrepancies between the demand of employers or clients and the supply of qualified IT auditors. More recently, the legal (Sarbanes-Oxley and its equivalent in many countries) and business requirements for assurance in IT have sharply accentuated the need for qualified practitioners. The need is the same for IT governance and security management professionals.

While professional associations perform outstandingly in providing the best possible continuing professional education, it is up to universities and other institutions to provide practitioners needed to embrace these professions.

This article was created to discuss the development and implementation of a new graduate program in IT governance, audit and security at the Université de Sherbrooke in Québec, Canada. This program provides training or retraining for practitioners and by 2006 will generate a flow of qualified and, hopefully, certifiable professionals.

To address this very issue, the ISACA Québec chapter and Université de Sherbrooke are quite proud to have cooperated in producing a new university program worldwide that would be recognized by ISACA as being aligned under the new *ISACA Model Curriculum for IS Audit and Control* adopted late in 2004.

This story is shared so that it can be adapted by ISACA chapters that have some degree of cooperation with a university in their area.

How It Began

While the Quebec chapter was eager to develop a partnership with a university willing to present the program within the chapter's area of service, Université de Sherbrooke had figured that in the aftermath of the Sarbanes-Oxley Act, a graduate program was required. They were on the lookout for a partner to achieve this.

The Quebec chapter corroborated its own analysis with information from ISACA headquarters. This knowledge and the confidence it provided in the goals pursued became a basis of the new partnership between the Quebec chapter and Université de Sherbrooke.

The program was initially designed jointly by volunteers from the Québec chapter (M. Lambert, S. Bédard and A. Alaoui) and representatives of the Université de Sherbrooke (A. Elbekkali and S. Beaulieu), made official in late 2004 and courses offered as of January 2005.

More Complex Than First Appeared

Education systems in different countries all have their particularities. At the same time, communities served by ISACA chapters certainly have different priorities from universities. It is neither realistic nor desirable to take a graduate program description and copy-paste locally. At

the same time, the steps taken to design and roll out this program can readily be adapted to a local context.

The 2004 *ISACA Model Curriculum for IS Audit and Control* specifies requirements for 244 hours divided between seven areas, then topics and sub-topics. This subtle change in the curriculum from course-based to topic- and issue-based has met with much success. The graduate program at Université de Sherbrooke is based on 450 contact hours, articulated through 10, 45 hour courses.

Graduate programs in different universities all have their particularities. It is the same with all the red tape necessary to launch a new program. In this case, it was necessary first to look into a graduate diploma and postpone the master's degree until the first cohort was ready to enlist. Then again there was the need to offer a subset, called a micro program.

Why Sherbrooke Chose the Quebec Chapter

By monitoring the impacts of Sarbanes-Oxley and new national requirements, the university recognized the need for this type of program. Some professors were eager to engage in the process of putting a new program together and were on the lookout for a partner that had the proper perspective. Professor Elbekkali had been a member of the chapter for less than a year, but he determined that the Quebec chapter had the level of initiative and the right people for this.

Why the Quebec Chapter chose Université de Sherbrooke

Université de Sherbrooke is numbered among the best Canadian universities. It is very innovative and is often associated with great projects. It sees its mission to respond to new needs of the marketplace. It opened a campus on the south shore of Montreal as a commitment to deliver its classes in Quebec City. In addition, it accepted to undertake the risks associated with developing a new program with a global (ISACA) association that was determined to proceed with an internationally developed curriculum to which local priorities would be added.

10 Steps from Vision to Reality—What are the Critical Success Factors?

1. Have a vision.

Any great accomplishment starts with a vision. A big picture is needed of what type of mix will best answer the needs of current and future members. More precisely, decide who to reach out to (practitioners or students) and for what you want to prepare them. Among other things, this will bring a focus to either on a graduate or undergraduate curriculum.

2. Identify an academic partner.

Opportunities are evermore present from increasing competition amongst universities. Be proactive, if the ones closest do not see the light, expand the search as more and more universities offer off campus programs. For example, Dr. Adelhaq Elbekkali became the ISACA Academic Advocate for the Université de Sherbrooke. The Academic Advocate program encourages cooperation between the chapter and local universities. It promotes student membership in ISACA, use of the Model Curriculum and COBIT in Academia, CISA certification and library subscription to the *IS Control Journal*.

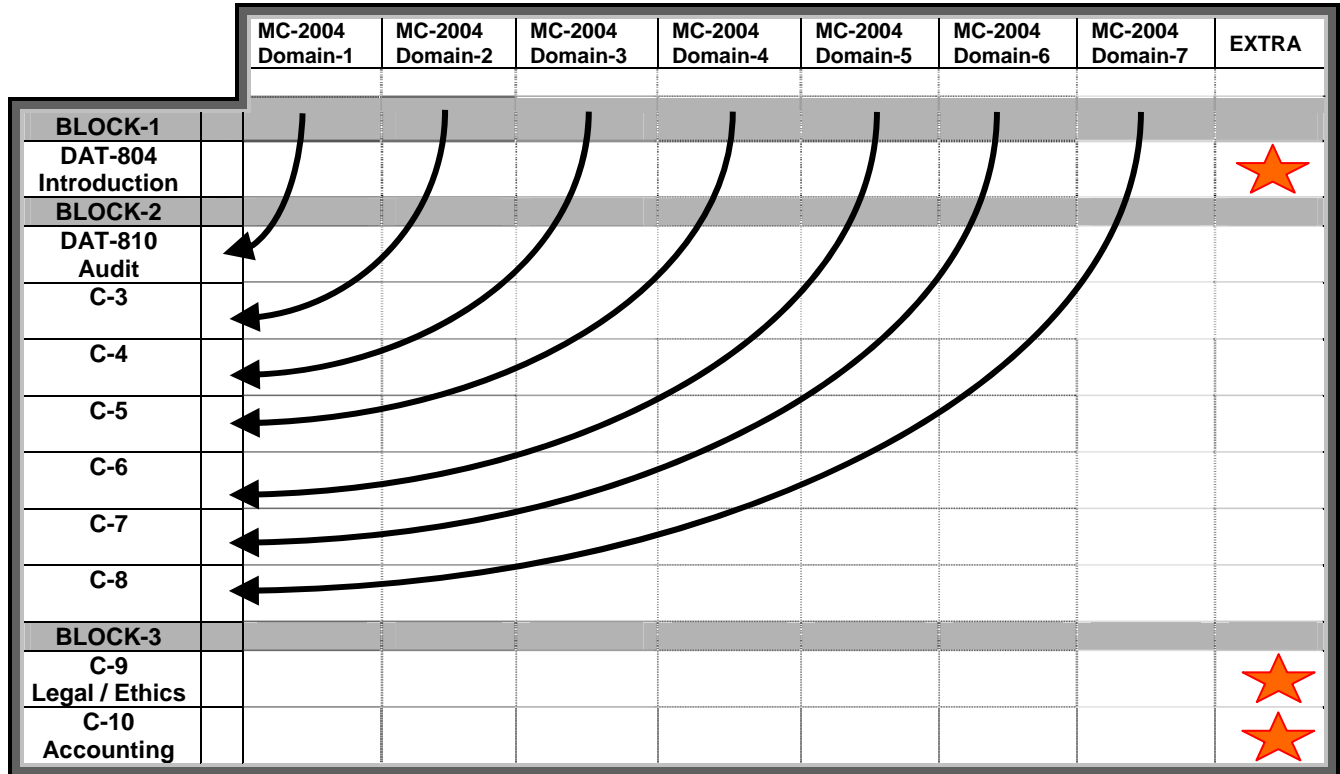
3. Set the proper foundation.
As of January 2004, countless e-mails and phone discussions allowed establishing relationships and high level parameters for the program. The chapter and the university both wanted this to be a win-win relationship. On one hand, university constraints made it more realistic to aim for a graduate diploma, keeping in mind that this could later expand to a full master's degree. On the other hand, our requirements were for the program to be ISACA-tized, COBIT-ized, CISA-tized and spiced with our own high priority issues such as ethics and law.
4. Design the program architecture.
This is a key goal indicator. Design a program that will match numerous criteria: the chapter's, the university's and the *ISACA Model Curriculum for IS Audit and Control*.

Fitting 244 hours into 450 contact hours first appeared very easy. WRONG! The international task force that produced the Model Curriculum kept it at a high level in terms of what should be achieved and organized this by areas, topics and sub-topics. The Model Curriculum is built so it can be used to fit into any specific university program structure. It allows the needed flexibility for universities and educational institutions around the world.

The Model Curriculum calls for teaching in seven areas that require between 19 and 58 teaching hours. On the other hand, the university's graduate diploma calls for ten, 3-hour credit courses. Each 3-hour credit course implies 45 contact hours including 42 teaching hours and 3 hours for evaluation. Note that on an average, each contact hour implies 2 hours of out of class readings or experimentation. Background as a speaker and as a CISA coordinator was a major factor in helping to settle this apparent mismatch.

All this points to one conclusion: hit the RESET key ... that is, start with a general introduction to IT governance, security and audit. Later, students from the first cohort said the course could be renamed the ISACA indoctrination course. The majority of the participants of the first cohort are now ISACA members in good standing.

As the diagram below depicts, the structure was initially set it up in three blocks:



5. Design course layouts.

At this stage it becomes necessary to thoroughly demonstrate that each course in the proposed program had enough material to be worthy of a 3-hour credit course.

6. Get formal approval of the program from the university structure.

This was almost transparent to the chapter; the university counterpart reported regularly on progress.

7. Recruit faculty.

From the beginning it was agreed that the very nature of this program calls for team-teaching. Albert Einstein said, “The only true knowledge is through experience.” The best mix of experience comes from a combination of regular professors and seasoned professionals holding ISACA certifications (CISA and/or CISM).

Subject matter experts (SMEs) who teach CISA review courses and are active in enhancing the profession should be fit to further develop courses that address the same common body of knowledge (CBK). On the other hand, regular academics will contribute to maintaining the high standards in place at Université de Sherbrooke. When others embark on this, please bear in mind that the most competent expert does not necessarily possess teaching skills. At the same time, some researchers can be disconnected with practitioner daily issues and concerns. Also, the location where the courses would be

delivered was considered and it was determined to get friends from the Montréal chapter around the table.

8. Recruit candidates.

All of the best laid plans are wasted if there are no bodies to fill the seats (customers). To assist in this effort, the Université de Sherbrooke advertised in selected newspapers and ensured coverage of Montréal, Québec and a province wide publication. In addition, two formal presentations were given in Quebec City.

9. Launch the program.

This was a high moment for all involved. The level of the first cohort was amazing. Unexpectedly, the first cohort came from Montreal and thus the courses were presented at the Longueuil Campus on the south shore of Montreal. The two first courses were Introduction to IT Governance, Security and Audit and Technical infrastructure.

10. Evaluate and adapt.

Adjusting to the needs of the clients has been a constant concern. The satisfaction rate is very high and the intention is to make adjustments immediately after this term. A special meeting with all those involved in teaching the courses of the entire program is planned to ensure common understanding and cohesiveness in the use of COBIT in Academia, assignments and the evaluation process. It has been determined that part of the evaluation should comprise questions in the same format as ISACA's certification exams to give the candidates a feeling for this measurement.

Challenges and Rewards

The first and greatest challenge was to pursue and successfully secure an academic partner. Once this was resolved, it was apparent that all the remaining issues could be addressed in due time. Advice for other chapters to consider in beginning an initiative such as this, is to use a more proactive approach and proceed with formal communications with the deans of administration faculties throughout the area.

The second greatest challenge was putting together a mix of requirements and fitting them into a well structured program. The final approval from university authorities was a great moment.

Then for it to become a reality, candidates needed to sign up. At the very first course, a little celebration was held and it was concluded that this was not the end of the journey but only the beginning.

Conclusion

As ISACA chapters of an international association, the focus is on meeting the demands of current and future members. The motto "think globally, act locally" applies perfectly well in this case. By following these steps contributions can be made to fill the gap between the demand and supply of qualified practitioners, generate a larger practice community and forge long lasting relationships between universities and ISAC chapters, and providing long-term growth.

For many years, universities have adapted existing courses and programs in response to the ongoing demand for qualified practitioners. Université de Sherbrooke and the ISACA Québec chapter want to provide candidates with a leading edge program by taking this new approach and continually developing this graduate program.

ISACA assumed a global leadership in establishing and updating a model curriculum to help universities incorporate the common body of knowledge in their programs and courses *2004 ISACA Model Curriculum for IS Audit and Control*. Taking advantage of the flexibility provided in this curriculum, the university and chapter managed to address the need in the most efficient way possible.

This is the **FIRST** graduate program specifically designed in Canada for practitioners in the areas of IT governance, audit and security—and we hope that there will be many more.