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**MEMORANDUM**

<b>ATTENTION</b>	Senate	<b>DATE</b>	November 19, 2020
<b>FROM</b>	Jon Driver, Vice-President, Academic and Provost <i>pro tem</i> , and Chair, SCUP	<b>PAGES</b>	1 of 1
<b>RE:</b>	Full Program Proposal for a Graduate Certificate in Accounting with Digital Analytics ( <a href="#">SCUP 20-52</a> )		

At its October 7th, 2020 meeting, SCUP reviewed and approved the Full Program Proposal for a Graduate Certificate in Accounting with Digital Analytics within the Beedie School of Business.

**Motion**

That Senate approve and recommend to the Board of Governors the Full Program Proposal for a Graduate Certificate in Accounting with Digital Analytics within the Beedie School of Business, effective Fall 2021.

C: A. Gemino




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MEMORANDUM

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ATTENTION Senate Committee on University Priorities (SCUP)      DATE November 6, 2020  
FROM Jeff Derksen,  
Chair of Senate Graduate Studies  
Committee (SGSC)   
RE: Full program proposal: Graduate Certificate in Accounting with Digital Analytics

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**For approval:**

At its meeting of November 3, 2020, SGSC approved the full program proposal for a Graduate Certificate in Accounting with Digital Analytics from the Beedie School of Business and is recommending it to SCUP for approval, effective **Fall 2021**.

**Motion:**

That SCUP approve and recommend to Senate the full program proposal for a Graduate Certificate in Accounting with Digital Analytics within the Beedie School of Business, effective Fall 2021.

**For Information:**

Included with the full program proposal and approved by SGSC subject to approval by Senate:

- 1) Program Change (calendar revision): Graduate Certificate in Accounting with Digital Analytics



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**Memo to SGSC**

**To: Senate Graduate Studies Committee**  
**From: Andrew Gemino, Dean pro tem (previously Associate Dean, Graduate Programs)**  
**Re: New Program Proposal**  
**Date: October 6, 2020**

The following curriculum revisions have been approved by the Beedie School of Business and are forwarded to the Senate Graduate Studies Committee for approval. This program should be effective for program continuation in Fall 2021.

Please include them on the next SGSC agenda.

- ~~NEW PROGRAM proposal: Master of Science in Accounting with Cognitive Analytics~~
- ~~NEW PROGRAM proposal: Graduate Certificate in Accounting with Digital Analytics~~

Thank you for your attention herein. Should you have any questions or concerns, please do not hesitate to contact me.

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Dr. Andrew Gemino  
Professor, Management Information Systems  
Dean pro tem (previously Associate Dean, Graduate Programs), Beedie School of Business



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**Graduate Certificate  
in Accounting with Digital Analytics**

Full Program Proposal

October 20, 2020  
Beedie School of Business

## **Executive Summary**

The Graduate Certificate in Accounting with Digital Analytics provides students with foundational knowledge in digital analytics for accounting. Students who have completed 15 units of foundational coursework and a project course will be eligible for this certificate if they have maintained a minimum 2.5 cumulative grade point average.

As previously submitted under Cohort Special Arrangement, the certificate program provides introductory courses towards developing accounting professionals with data analytics capabilities. This includes empowering accountants to embrace change and think critically. Accounting firms, large and small, have recognized the importance of digital analytics in accounting practice showing a considerable need of a program of this kind for the profession.

## **PART A [3 pages maximum]**

### **Proposed credential to be awarded**

Graduate Certificate in Accounting with Digital Analytics

### **Location of program**

Primarily online, with some face-to-face sessions (Vancouver: Segal campus, and offsite)

### **Academic unit(s) offering proposed program**

The Beedie School of Business (SFU Beedie).

### **Anticipated program start date**

Fall 2021

### **Anticipated completion time**

Two terms

### **Summary of proposed program**

#### **a) Aims, goals and/or objectives of the proposed program**

The Graduate Certificate in Accounting with Digital Analytics is intended to solidify the foundation for digital analytics, and the Master of Science in Accounting with Cognitive Analytics builds upon this foundation.

The aim of the program is to develop accounting professionals with digital analytic capabilities. By creating an educational program to support the advancement of analytical skills, Beedie will be preparing accounting business professionals to embrace the changes

coming to the industry and provide the skills they need to upskill in their role. Graduates from the Certificate program will be:

- knowledgeable about how the profession has evolved technologically
- accomplished in accounting practices
- empowered with data and analytic technologies
- prepared to collaborate across teams within their organization

**b) Anticipated contribution of the proposed program to the mandate and strategic plan of the institution**

The Certificate aligns with SFU's mission as well as the Beedie School of Business (SFU Beedie) calling through a focus on innovation and collaborative capabilities with attention on digital analytical skills..

It also aligns with SFU's Academic Plan 2019-24 by addressing the following challenges:

- Student life, learning and success: participants learn how to use the latest analytics tools and are invited to local networks to learn from each other.
- Academic Quality/Curriculum: Innovative program delivery including blended online and face-to-face programming and a project course.
- Engagement: with the skills learned in the certificate, students add value to the accounting practice by initiating change at a local level
- Bridging Divides: the program integrates data and analytics across the accounting profession to address the need for this application to advance professionally
- Faculty Renewal: the program provides opportunities for faculty to further develop graduate program/course design and instructional skills as well as increasing the tuition revenue to support the faculty complement

**c) Potential areas/sectors of employment for graduates and/or opportunities for further study.**

As the Certificate is geared towards students with high levels of familiarity with accounting, participants will obtain career development through a focus on collaborative teaming. The Certificate project course allows for team-based learning in digital analytics techniques that can be applied to the workplace. This will lead to upskilling in terms of professional development and possible new role definitions in the accounting profession. Graduates will be prepared to take on additional projects in digital analytics within their organization or can continue with their studies with the Master of Science in Accounting with Cognitive Analytics. The masters program builds upon the foundation for digital analytics with applications of predictive analytics and machine learning techniques that are signature to cognitive analytics approaches.

**d) Delivery methods**

A blended education delivery approach that includes face-to-face sessions integrated with an online learning management system (LMS) form the basis of the certificate. The asynchronous LMS component, on Canvas, allows for students to immerse themselves in learning on their own schedule while encouraging a collaborative, team-based approach

which is further supported by the face-to-face sessions. This blended model helps to engage students and increase learning retention.

**e) Related programs in the institution or other British Columbia post-secondary institutions.**

Most Canadian digital analytics certificate programs are offered through Continuing Studies programs. Most of these programs are focused on the technical aspects of statistics and data science rather than data and analytic in a business context. Such related programs include: Ryerson University, G. Raymond Chang School of Continuing Education, Certificate in Data Analytics; York University School of Continuing Studies, Data Analytics Certificate; University of Toronto School of Continuing Studies, Data Analytics Certificate;

**Contact information**

Andrew Gemino, Dean pro tem, Beedie School of Business, [gemino@sfu.ca](mailto:gemino@sfu.ca), 778-782-3653.

**PART B [2 pages maximum]**

**PROGRAM DETAILS**

**a) Graduation requirements, target audience**

Student must complete 15 credits of coursework including one project course to receive a Graduate Certificate in Accounting with Digital Analytics credential. The certificate program is geared towards students already working within an accounting profession or firms (e.g., the accounting services, tax, or auditing departments) primarily at the Junior Accountant or mid-level managers.

Therefore, accountants will be the targeted recruitment group. Demand for this program can be determined by a survey conducted by SFU Beedie following the completion of the Certificate program where 93% of Vancouver students said that they would recommend the certificate program to a colleague.

**b) Admission requirements**

Admission requirements for the certificate include an undergraduate degree in business, management, commerce, or other suitable quantitatively oriented programs and a minimum of two years of applicable work experience. Candidates holding a professional designation such as a CPA and evidence of strong mathematics competency would also be ideal candidates.

**c) Evidence of student interest and labour market demand**

There is a significant unmet need for further education in the areas of data analytics, specifically in the area of accounting, audit and tax. CPA Canada has recognized the changes data and analytical skills are bringing to the profession providing evidence of demand for data analytics education as the “digitization of transactions is quickly transforming the landscape and nature of work” (CPA Canada Foresight: The Way Forward, p. 7).

The type of jobs that candidates are likely to access after graduation include analytic team leads. If students choose to complete the Master of Science in Accounting with Cognitive Analytics program, additional positions such as lead business analysts and managers of

business analytics teams become available to them. These appear under the NOC codes of 1111 – Financial auditor and accountants, 1112 – Financial and investment analysts, 2171 – Information systems analysts and consultants, and 2172 – Database analysts and data administrators.

**d) Eligibility for scholarships, awards, and financial aid**

Certificate students will not be eligible for internal scholarships, awards, or financial aid. However, students may be eligible for external and donor funded scholarships, awards, and financial aid, so long as they meet the eligibility criteria.

## RESOURCES

**a) Enrolment Plan**

We expect to run a Certificate program in parallel with the MSc so that students who take the Certificate will move immediately into the MSc after completing the certificate coursework.

In its first cohort of the Certificate program in December 2019, enrolment consisted of 75 students and 68% or 51 students opted to continue onto the Master's program in 2020. This was higher than anticipated enrolment with a further 24% or 18 students of the Certificate cohort expressing interest in taking the Master's program in 2021.

Our modest expectations of the future program enrolments include that approximately 50% of students who take the Certificate will move immediately into the MSc after completing the certificate coursework and that Certificate cohorts would consist of approximately 80-100 students.

**b) Resources required and/or available to implement the program (financial and personnel) including any new faculty appointments**

Existing resources will be utilized. Canvas will be the online course delivery tool. Face-to-face sessions are minimal, meaning limited physical resources are needed. Face-to-face sessions will be held at the Segal Graduate School or offsite utilizing corporate space with an industry partner organization, with no requirement for additional lab space, library space, or other on-campus facilities. Students will not utilize in-house Beedie resources such as the Career Management Centre or student engagement opportunities. Administrative resources will come from existing Beedie Graduate Program staff at the Segal Graduate School. Existing faculty will be utilized, with no new hires planned

**c) Faculty member's teaching/supervision**

SFU Beedie has exceptional, world class faculty with skills and expertise in data and analytics with a history of innovative programming. During the cohort special arrangement, our faculty have successfully taught in this graduate business program using an executive education-model of instructional delivery.

In both the MSc and the Certificate programs, participants must complete a work-related project to earn their credential. This feature provides students with an important applied experience while reducing individual faculty supervision requirements and the impact on faculty resources that is necessary in thesis-based programs.

**d) Proposed tuition and other program fees including a justification**

The proposed tuition fees are \$693.83 per unit, plus additional student fees of approximately \$200 per term (without a U-Pass, as the proposed program is primarily



delivered online) as per the academic calendar. This per unit fee is based on the existing Master of Science in Finance tuition.

The total program fees will be \$10,407.45 per student.

**PART C: Appendices**

**Appendix 1 Calendar entry**

Please see attached.

**Appendix 2 Letters of support**

Please see attached



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# APPENDIX 1

Graduate Certificate in Accounting with Digital Analytics  
Calendar Entry

## Calendar Entry Change for Graduate Certificate in Accounting with Digital Analytics

<p>Summary of change: Description change (from auditing to accounting) and course title changes.</p>
<p>Rationale for change: To better reflect the updated content of the program</p>
<p>Effective term and year: Fall 2021</p>
<p>Will this change impact current students? If yes, what is the plan for current students? No</p>

FROM	TO
<p>As institutions and their audit committees are increasingly concerned with technology and data analysis, providing instruction in the form of a Certificate in Accounting with Digital Analytics delivers the data analysis knowledge expected of professional financial services employees in order for them to advance professionally. Through educational programs that support the development of data analysis skills, financial service professionals will be prepared to embrace the changes coming to the <del>auditing</del> profession and obtain the skills they need to play a vital role in helping client organizations create value.</p> <p>[...] Program Requirements</p> <p>The Graduate Certificate in Accounting with Digital Analytics consists of course work and an applied project for a minimum of 15 units. Courses from other SFU graduate business programs, or a special topic course, may be substituted at the discretion of the academic director.</p> <p>Students must complete all of</p> <p>BUS 830 – <del>Foundations of Business Systems and Data</del> (3) BUS 831 – Analyzing and Visualizing <del>Accounting</del> Data (3)</p>	<p>As institutions and their audit committees are increasingly concerned with technology and data analysis, providing instruction in the form of a Certificate in Accounting with Digital Analytics delivers the data analysis knowledge expected of professional financial services employees in order for them to advance professionally. Through educational programs that support the development of data analysis skills, financial service professionals will be prepared to embrace the changes coming to the <b>accounting</b> profession and obtain the skills they need to play a vital role in helping client organizations create value.</p> <p>[...] Program Requirements</p> <p>The Graduate Certificate in Accounting with Digital Analytics consists of course work and an applied project for a minimum of 15 units. Courses from other SFU graduate business programs, or a special topic course, may be substituted at the discretion of the academic director.</p> <p>Students must complete all of</p> <p>BUS 830 – <b>Data Management and Business Solutions</b> (3)</p>

BUS 832 – <del>Data Analytics for Auditing Practice</del> (3) BUS 838 – <del>Collaboration, Teaming, and Agile Methods</del> (3) [...]	BUS 831 - Analyzing and Visualizing <b>Business Data</b> (3) BUS 832 – <b>Accounting Data Analytics</b> (3) BUS 838 – <b>Creativity, Collaboration and Leading Change</b> (3) [...]
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# APPENDIX 2

Letters of Support

October 30, 2020

To Whom it May Concern:

Re: SFU Beedie Master of Science in Accounting with Cognitive Analytics

The Chartered Professional Accountants of British Columbia (CPABC) is the only training, governing, and regulatory body for professional accountants, with over 37,000 CPA members and 5,000 CPA students. Our primary mission is to protect the public by enforcing the highest professional and ethical standards, which includes ensuring only qualified individuals enter into membership. To become a CPA, students must complete pre-requisite courses, a rigorous post-graduate program and final exam, and complete relevant practical experience requirements.

CPABC works closely with post-secondary institutions like Simon Fraser University (SFU), as many future CPA students complete their pre-requisite requirements there and at other institutions across the province. These institutions play an integral role in the CPA education pathway, ensuring students are ready and able to enter into the CPA program after completing their undergraduate education.

For some time, the profession has recognized that we live in a swiftly evolving digital environment led by the overwhelming pervasiveness of technological change. Businesses are moving to real-time data when making decisions, there is an exponential increase in data to draw from, and the scope and nature of work for professional accountants is changing. This is why the profession recently updated the CPA Practical Experience Competency May to ensure data analytics and information systems were incorporated throughout the learning experience.

The continuation of the Master of Science in Accounting with Cognitive Analytics at the Beedie School of Business at SFU will create a foundation for students focused on digital skills, and new tools and technologies that are essential now and into the future, and are now a core part of the CPA program.

We support the Master of Science program, and believe it will set students up for success within the CPA program as they continue to advance their skills in data and analytics.

Sincerely,

Lorena Christensen, CPA CMA  
Director, Student Recruitment and Employer Relations  
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October 5, 2020

To Whom it May Concern.

**RE: SFU Beedie's Proposed Master of Science in Accounting with Cognitive Analytics**

I am writing to express my support for the proposed **Master of Science in Accounting with Cognitive Analytics at Simon Fraser University's Beedie School of Business**.

In April of 2019, KPMG partnered with SFU Beedie to launch this Master's program, an industry-leading program that provides our audit professionals with the opportunity to build their skills for the future. Through specialized courses on the latest advancements in technology and data and analytics, this program prepares professionals for an era of machine learning, artificial intelligence, and other digital advances.

The impetus to deliver this program was born from an understanding that serving today's global companies requires more than a deep knowledge of accounting and auditing. Harnessing the power of data requires industry professionals that are savvy about data and analytics, and have the critical thinking skills needed to translate data patterns and anomalies into higher quality audits, all while providing relevant and meaningful business insights. This integration of human, digital, and performance skills is crucial to the success of our profession and this program is enabling our people to upskill.

We selected SFU Beedie to deliver this program because of the school's ability to deliver forward-looking education programs. Given the success of our partnership with Beedie, I am confident to support the proposed Master of Science in



Accounting with Cognitive Analytics degree. I am confident that Beedie is committed to providing the skills training that professionals need in order to deliver positive economic, social and environmental impact in a complex global world.

Sincerely,

A handwritten signature in black ink that reads 'Kristen Carscallen'. The signature is written in a cursive style with a long horizontal flourish extending to the right.

Kristen Carscallen