SFU

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MEMORANDUM

ATTENTION	Senate	**DATE**	June 3, 2021
FROM	Catherine Dauvergne, Vice-President, Academic and Provost and Chair, SCUP	**PAGES**	1 of 1
RE:	Full Program Proposal for a Graduate Certificate in Digital Innovation (SCUP 21-22)		

At its June 2nd, 2021 meeting, SCUP reviewed and approved the Full Program Proposal for a Graduate Certificate in Digital Innovation.

Motion:
That Senate approve and recommend to the Board of Governors the Full Program Proposal for a Graduate Certificate in Digital Innovation within Beedie School of Business, effective Spring 2022.

For Information:
Included in the full program proposal and approved by SCUP subject to approval by Senate:
1. New calendar entry: Graduate Certificate in Digital Innovation

C: A.Gemino

SFU GRADUATE AND
POSTDOCTORAL STUDIES

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8888 University Drive
Burnaby, BC V5A 1S6

MEMORANDUM ——————————————————————————————

ATTENTION	Senate Committee on University Priorities (SCUP)	**DATE**	May 21, 2021
FROM	Jeff Derksen, Chair of Senate Graduate Studies Committee (SGSC)		
RE:	Full program proposal: Graduate Certificate in Digital Innovation		

For approval:
At its meeting on May 4, 2021, SGSC approved the full program proposal for a Graduate
Certificate in Digital Innovation from the Beedie School of Business and is recommending it to
SCUP for approval, effective **Spring 2022.**

Motion:
That SCUP approve and recommend to Senate the full program proposal for a Graduate Certificate
in Accounting with Digital Innovation within the Beedie School of Business, effective Spring
2022.

For Information:
Included with the full program proposal and approved by SGSC subject to approval by Senate:
   1) New calendar entry: Graduate Certificate in Digital Innovation

SIMON FRASER UNIVERSITY   ENGAGING THE WORLD

Segal Graduate School   Office of the Associate Dean   TEL 778.782.9255   gemino@sfu.ca
                         500 Granville Street   FAX 778.782.5122
                         Vancouver, BC V6C 1W6

Memo to SGSC

To: **Senate Graduate Studies Committee**
From: **Andrew Gemino, Associate Dean, Graduate Programs**
Re: **Calendar and Curriculum Changes for Spring 2022**
Date: **April 7, 2021**

The following calendar and curriculum revisions have been approved by the Beedie School of Business and are being forwarded to the Senate Graduate Studies Committee for approval. These program changes should be effective for **Spring 2022**.

Please include the following on the next SGSC agenda.

Graduate Certificate in Digital Innovation

- **New Program Proposal: Graduate Certificate in Digital Innovation**

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

_____
Dr. Andrew Gemino
Associate Dean, Graduate Programs
Beedie School of Business

SIMON FRASER UNIVERSITY
ENGAGING THE WORLD

Graduate Certificate in Digital Innovation

Full Program Proposal

April 20, 2021

Beedie School of Business

Executive Summary

SFU's Beedie School of Business is creating a new certificate program for students who want to advance within or transition into the technology ecosystem. Informed by feedback from industry, this transformative program will empower students to enhance their knowledge in the principles of database and business solution design while developing their critical thinking and communication skills. This will allow them to support organizations as they unlock innovation and go through a technological change.

To remain competitive in today's marketplace, organizations must invest in their most important asset, their people. Upskilling an organization's employees fills knowledge gaps and helps to boost productivity. It also attracts new employees into the organization to drive innovation and change. However, education about technology's benefits, resources to provide training, capital for services, and workers including manager and executives are often lacking. This certificate program aims to address these needs.

PART A [3 pages maximum]

Proposed credential to be awarded

Graduate Certificate in Digital Innovation

Location of program

Burnaby

Academic unit(s) offering proposed program

Beedie School of Business

Anticipated program start date

Spring 2022

Anticipated completion time

Two terms

Summary of proposed program

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

This program is being proposed to educate students about technology's benefits, help them find resources to train workers in their companies, and drive them to want to utilize equipment and services that enable technology solutions across the workforce.

This program will focus on the principles of database and business solution design while developing critical thinking and communication skills. According to a report from the World Economic Forum[1], "the transition to the new world of work will be both human- and tech-centric". This report, entitled "Jobs of Tomorrow: Mapping Opportunity in the New Economy", takes an in-depth look into new job creation, reviewing the shifting

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[1] World Economic Forum, Jobs of Tomorrow: Mapping Opportunity in the New Economy (2020). Retrieved from: http://www3.weforum.org/docs/WEF_Jobs_of_Tomorrow_2020.pdf

focus of employment to emerging professions of the future, the reasons behind it, and what skills will be required by these professions.

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

The Graduate Certificate in Digital Innovation aligns with the mandate of the institution as well as the Beedie School of Business's calling through a focus on innovation and collaboration.

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 and adapt to the shifting technology ecosystem.
- Academic Quality/Curriculum: timely and innovative program curriculum combined with blended delivery including online and face-to-face programming.
- Engagement: with the skills learned in the certificate, students add value to their organizations through upskilling and leading technological implementation.
- Bridging Divides: the program integrates digital innovation with critical thinking and strategic consulting to address the need for participants to advance professionally and organizations to advance economically.
- 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.

The potential opportunities for graduates of this program include filling knowledge gaps within organizations with regards to the technology ecosystem. This will allow them to support organizations as they unlock innovation and go through a technological change.

According to a study by the Information and Communication Technology Council (ICTC) [2], just a 1% increase in labour productivity as the result of adopting technology would yield $2.5 billion to the Canadian economy – $8 billion if multiple emerging technologies were well-adopted. Yet, today, just half of Canadian enterprises have enabled technology solutions across their workforce. Despite the compelling argument for greater adoption, Canadian enterprises and especially small and medium-sized enterprises (SMEs) have not embraced emerging technologies to the degree necessary to fuel the economy to go full speed.

Graduates can continue their studies in other diploma or master's programs to gain general business knowledge while having specialized knowledge in the area of digital innovation.

d) Delivery methods

The Graduate Certificate in Digital Innovation will be offered using a cohort model and a blended education delivery approach. That is to say that all coursework will include asynchronous and synchronous components in the form of face-to-face sessions

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[2] Information and Communications Technology Council (ICTC), Digital Adoption, Advancing Canada's place in a global economy (2014). Retrieved from: https://www.ictc-ctic.ca/wp-content/uploads/2014/07/AdoptionRoadmap.pdf

supported by an online learning management system, Canvas. 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 related programs lean towards more quantitative and technology-centered curriculum or a management consulting orientation. SFU Beedie's program leans on a blend between the adaptation of technology (such as in learning the principles of database and business solution design) and human-centered skill needed for implementation of technology (such as critical thinking and communication skills).

Similar local and national programs include the Digital Transformation Certificate offered through UBC's Executive Education, an informal Business Consulting MBA specialization from the Schulich School of Business, York University and Certified Management Consultant designations from: the University of Alberta (within their MBA); the University of Toronto's (offered through Continuing Studies); and the University of Waterloo (within the Master of Business Entrepreneurship and Technology (MBET) program);

Contact information

Andrew Gemino, Dean pro tem, Beedie School of Business, gemino@sfu.ca, 778.782.3653.

PART B [2 pages maximum]

PROGRAM DETAILS

a) Graduation requirements, target audience

Graduation requirements include the successful completion of a minimum of 12 units of course work to receive a Graduate Certificate in Digital Innovation credential. The certificate program will initially target a cohort of individuals interested in exploring graduate education offerings (recent graduates from post-secondary who want to transition into the workforce) with the intention of expanding to include future cohorts of current employees at organizations.

The program can grow to be offered in concurrent terms and to a broader audience through the blended learning format. The Beedie School of Business is looking into the steps needed to create a non-credit to credit pathway for this certificate through an advance credit arrangement, and to integrate the certificate into other graduate program requirements (such as the MBA) to award additional credentials in a specialized area for these students. An expansion of the target audience would specifically reach employees at organizations undergoing technological change or those who want to reskill into the digital economy.

b) Admission requirements

Applicants must satisfy the University admission requirements as stated in the Graduate General Regulations 1.3 in the SFU Calendar. Applicants should normally have an undergraduate degree with a minimum 3.0 cumulative grade point average.

c) Evidence of student interest and labour market demand

Evidence supporting the expected student interest in this program can be derived from The World Economic Forum report mentioned previously. With 6.1 million new job opportunities appearing over the next three years in tandem with the evolving need of the technological and economic context, mechanisms to support workers' transitions to new opportunities that lie ahead are needed.

According to the Government of Canada's Digital Charter in Action: A Plan by Canadians, for Canadians[3] from Innovation, Science and Economic Development (ISED) Canada, Canadians need help preparing for the workplace of the future and recognize automation and other innovative technologies have the ability to boost efficiency and help companies scale up and grow. However, it will be important to be mindful of potential disruption to the labour market. Canadians must have support to develop the skills and competencies needed at all stages of work, and across any career changes. Canada must look at smart, efficient and timely ways to train individuals so they are able to transition as quickly and smoothly as possible.

A report by Salesforce Canada and the Gandalf Group[4], who surveyed 406 Canadian business leaders in April & May of 2019, plus an additional 240 survey respondents, said that "a lack of expertise and budget constraints are the two top challenges for those who have not onboarded new technology".

The type of jobs that graduates are likely to access after graduation include professional occupations in business management consulting (NOC 1122) and information systems analysts and consultants (NOC 2171).

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

SFU Beedie plans to offer this certificate to those wanting graduate education in the area of digital innovation. The certificate will be available to individuals as well as those who have successfully completed the non-credit equivalent in the first year. The anticipated student enrolment for 2022 is expected at 20 students per cohort with a minimum viable cohort size of approximately 15 students. The minimum viable cohort size includes an analysis of direct, administrative and faculty costs.

Within the next three years, we expect to maintain a 20-student cohort. With an expanded target market to include the addition of the certificate being offered to other graduate program cohorts (such as the MBA) in 2022/23 we anticipate one additional cohort may be necessary. Therefore, we expect that the number of credentials awarded 2021/22

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[3] Innovation, Science and Economic Development (ISED) Canada's Digital Charter in Action: A Plan by Canadians, for Canadians (2019). Retrieved from: https://www.ic.gc.ca/eic/site/062.nsf/eng/h_00109.html

[4] Future Ready: Advancing Canadian Business in the Digital Economy (2019). Retrieved from: https://www.salesforce.com/ca/form/pdf/grow-your-business/

through to 2023/24 would be 20, 20, 40 respectively.

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

The resources required for the program include additional staff and faculty. Additional staff will be supported by the share of tuition provided by SFU to the program and startup costs will be covered by the Beedie School of Business as an investment that will be recovered through tuition revenue. Additional instructional costs will be covered by new faculty and temporary instructors. These additional faculty costs, including benefits, will also be covered by a share of tuition but only in cohorts larger than 15.

c) Faculty member's teaching/supervision

Numerous faculty members from our Innovation and Entrepreneurship, Management and Information Systems, and Management and Organization Studies areas would be ideal to teach in this certificate program offering.

Teaching loads will initially be impacted as SFU Beedie continues to push to recruit more faculty over the next few years as indicated in Beedie's 2018-2023 Five-Year Academic Plan. After which, this certificate will provide opportunities for faculty to further develop graduate instructional skills as well as increasing tuition revenue to support the faculty complement.

d) Proposed tuition and other program fees including a justification

The proposed tuition fees are $721.87 per unit, plus additional student fees as per the academic calendar. This per unit fee aligns with existing Graduate Certificate tuition within the Beedie School of Business including the Graduate Certificate in Science Technology Commercialization and the Graduate Certificate in Accounting with Digital Analytics. The total program fees will be $8,662.44 per student.

Please note that this per unit fee will be charged to everyone except those whose home program charges a per term fee and if completing the certificate is part of their home program requirements.

APPENDIX 1

Calendar Entry

Digital Innovation
Graduate Certificate

Description of Program

The Graduate Certificate in Digital Innovation features programming in the qualitative principles of database and business solutions design with an emphasis on critical thinking, consulting, and communication skills. Students in the program will learn how to adapt to and implement technology within an organization.

Admission Requirements

Applicants must satisfy the University admission requirements as stated in Graduate General Regulation 1.3 in the SFU Calendar. For more information, please contact the Beedie School of Business

Program Requirements

This program consists of course requirements for a minimum of 12 units. Course work may be substituted at the discretion of the academic director.

Students must complete all of

BUS 588 – Strategic Consulting and Advising (3)
BUS 589 – Business Solutions Design (3)
BUS 590 – Innovation and Change Management (3)
BUS 592 – Special Topics (3)

Program Length

Students are expected to complete the program requirements within two terms.

Academic Requirements within the Graduate General Regulations

All graduate students must satisfy the academic requirements that are specified in the graduate general regulations, as well as the specific requirements for the program in which they are enrolled.

APPENDIX 2

Letters of Support

December 1, 2020

Dear Andrew Gemino,

I am an alumni of the MOT MBA at SFU and currently employed as a General Manager of Traction on Demand's Education Delivery team. We are a Salesforce Implementation Partner working directly with education institutions , so naturally I was interested in learning more about the Digital Innovation Graduate Certificate.

Traction on Demand is growing quickly and we are always looking to hire people who possess the skills identified in this new program, specifically critical thinking, consulting, and communication skills. Our onboarding experience has proven that technical skills are more easily taught than are the business and communication skills needed to support digital innovation and transformation. It is often the human side of things, such as change management, collaboration, and team dynamics, that create risk to technology projects.

Having a solid business understanding is critical; for example, being able to elicit business requirements and translate them to technical requirements is a highly sought after skill in this industry. Conversely, the ability to use data to make decisions and tell a story is increasingly important.

Consultants who work with technology projects will benefit from strengthening the competencies you are targeting with the Digital Innovation Graduate Certificate, as will professionals who may be switching from a solely technical position to one in which they are required to be more consultative in nature. This program will also benefit companies anticipating entering into transformative technology projects in the next 6-18 months and who may be concerned about their internal capabilities. I'm also pleased to see that these courses will be available to MBA students as part of their program requirements if they choose, given the significant role that digital innovation plays in business today.

As you know, our ecosystem is expected to continue to see growth for the foreseeable future. I am excited that SFU Beedie is marrying education and opportunity. If there is anything I can do to help please feel free to reach out.

Sincerely,

Paula Brunton
pbrunton@tractionondemand.com

December 1, 2020

Dear Andrew Gemino,

I enthusiastically support the Graduate Certificate in Digital Innovation that is being proposed by the Beedie School of Business. This program is an exciting blend of strategic advising, innovation, business process awareness and change leadership, which are key skills required to enable organizations throughout their digital transformations' journeys today. At Deloitte Digital, we are looking actively recruiting for these skillsets and we know that many of our client organizations that we work with would also be looking to grow their workforce with these skills. The applied nature of the program should provide an excellent opportunity for students to practice their early teamwork and collaboration skills which are critical as they transition into the emerging workforce of tomorrow focused on innovative thinking and solutions.

With the increasing demand and importance to digitize traditional processes, organizations are challenged with transformation largely due to a workforce that lacks the skills required to make these changes happen. Through programs like the Graduate Certificate in Digital Innovation at the Beedie School of Business, students will be able to hone the skills required to overcome the people barrier at organizations and meet the clear demands for these skills. The program's focus on digital literacy combined with the soft skills of critical thinking, communications and collaboration are directly on target for developing the type of students who would be highly sought-after following graduation.

The transitions that organisations will be making will require digitally literate, creative thinkers who can serve as trusted advisors to help innovate and facilitate transformational change. The Graduate Certificate in Digital Innovation program provides an excellent foundation from which to launch a successful career in the area of digital innovation.

Sincerely,

Nima Sarhangpour
Senior Manager | Deloitte Digital
https://linkedin.com/in/sarhangpour

Nov 27th, 2020

Dear Andrew,

I firmly believe the proposed graduate certificate in Digital Innovation is an important addition to prepare our students for the forthcoming challenges and opportunities in their careers, communities, and the world. While the days that robots with general artificial intelligence would walk into our workplaces to replace/relieve human workers are still very far in the future, our students are now entering/rejoining/becoming a workforce in what the World Economic Forum (WEF) calls the Fourth Industrial Revolution. In its *Future of Jobs Report 2020*, WEF predicts digital and automation technology would rapidly transform tasks, jobs and skills in the next five years, e.g., "by 2025, 85 million jobs may be displaced by a shift in the division of labour between humans and machines, while 97 million new roles may emerge that are more adapted to the new division of labour between humans, machines and algorithms" The recent pandemic is indeed one of the key drivers for such revolution at the incredible pace.

Digital and automation technology by itself does not create values. The value creation is in its integration and innovation with the business processes and customer experiences. Successful design and implementation of business technology in turns requires critical thinking, thorough business understanding, and effective communication. The case/simulation-based experiential learning approach in the proposed Digital Innovation certificate courses would allow students to acquire and/or further polish such in-demand skills and experiences by "doing" and reflecting.

Being an incoming graduate program academic director, I could not be more excited for our students to have the opportunities to develop the skills, knowledge and experiences essential to their future and our society.

Sincerely,

Jason Y. C. Ho, Ph.D.
Associate Professor
Beedie School of Business
Simon Fraser University