DATE: November 8, 2019

TO: Council Committee on the Faculty of Graduate Studies and Research

FROM: Nicholas (Nick) Jones, Dean

RE: Council Committee on the Faculty of Graduate Studies and Research

AGENDA for Wednesday, November 13, 2019 in AH 527.

1. APPROVAL of the AGENDA

2. APPROVAL of MINUTES – September 10, 2019 [Attachment 1]

3. Follow-up report from Executive of Council – September 25, 2019

4. REPORT FROM THE VICE-PRESIDENT (RESEARCH)

5. REPORTS FROM FGSR
   5.1 Dean
   5.2 Faculty Administrator
   5.3 PhD Committee
   5.4 Scholarship and Awards Committee

6. REPORTS FROM FACULITES
   6.1 Faculty of Arts
   6.2 Faculty of Engineering and Applied Science
   6.3 Faculty of Science
   6.4 Johnson-Shoyama Graduate School of Public Policy

7. OTHER BUSINESS

8. ADJOURNMENT

NOTE:
The next meeting is scheduled for Thursday, January 9, 2020 at 2:30PM in AH 527.
The deadline for submission of agenda items will be Tuesday, December 24, 2019.
FOLLOW UP REPORT FROM
EXECUTIVE OF COUNCIL MEETING
September 25, 2019

Items in bold indicate further approval is required by Council, Senate and/or possibly the Board. Other items reached final approval at Executive of Council unless otherwise indicate and only in certain cases will go to Senate for information.

MOTION 1: Faculty of Business Administration – MAdmin Program Change
MOTION 2: Faculty of Science – Program Change
6. Reports from Faculties

6.1 FACULTY OF ARTS

MOTION 1: Course Change

<table>
<thead>
<tr>
<th>Current</th>
<th>Proposed</th>
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<tbody>
<tr>
<td>GEOG 839 – Remote Sensing of the Environment Basic concepts of remote sensing, a review of sensors and their images, emphasis on image interpretation and analysis, and introduction to application areas in geographic studies. Upon successful completion you will be capable of undertaking basic computer-assisted image analysis to extract information from the image data.</td>
<td>GEOG 839 – Remote Sensing of the Environment Basic concepts of remote sensing, a review of sensors and their images, emphasis on image interpretation and analysis, and introduction to application areas in geographic studies. Upon successful completion you will be capable of undertaking basic computer-assisted image analysis to extract information from the image data. Prior applied experience with GIS is expected.</td>
</tr>
</tbody>
</table>

**Rationale:**
The rationale for this is that GEOG 203 (Introduction to Geographic Information Systems) was made a prerequisite for the undergraduate section of this course GEOG 309 (Introduction into Remote Sensing in Geography) previously. This revision of the course description for GEOG 839 “Remote Sensing of the Environment” ensures concurrence with our undergraduate program.

(end of Motion 1)

6.2 FACULTY OF ENGINEERING AND APPLIED SCIENCE

MOTION 1: New Course
That ENPC 831 - Industrial Gas Processing be created effective 202010.

**ENPC 831 Industrial Gas Processing (3)**
Design and operation criteria encountered in industrial gas processing industry. Topics include physical and chemical properties and overall phase equilibrium of light hydro- carbons, field treatment of natural gas, gas transportation, gas hydrates, sour gas treating, dewpoint control, fractionation, gas separation processes, NGL production, sulphur recovery, environmental control and economic considerations.
*Cross listed with ENIN 831.

**Rationale:**
ENPC 831 will be equivalent to the existing ENIN 831. This course is a good fit to the Process Systems Engineering (PSENG) program and is quite popular with PSENG students. The
PSENG program requires MEng students to take four ENPC courses. ENIN 831 is taught on a regular basis, and cross listing as an ENPC course will provide more flexibility to our graduate students.

(end of Motion 2)

**MOTION 2: New Course Change**
That the directed reading course ENEV 886CT be converted to a new regular course ENEV 854 effective 202010.

**ENEV 854 Cold Region Hydraulic and Engineering (3)**
An introduction to the fundamentals used in cold region research and engineering. Topics will include: river and lake ice mechanics, river ice engineering, sediment transport under ice conditions, the ice impact to hydraulic infrastructures.

**Rationale:**
To allow the EVSE program to teach ENEV 854 as part of its regular course offerings.

(end of Motion 2)

6.3 FACULTY OF SCIENCE

**MOTION 1: Historical Course**
That CS 903 - Computer Science Project Continuation be made historical effective 202010.

**CS 903 Computer Science Project Continuation (0)**
MSc Project Route students who are unable to complete and defend their project by the end of the credit limit of their program may register in this course to maintain their full-time status.

*Note:* Students may register in CS 903 a maximum of two times.

**Prerequisites:** completion of 9 credits of CS 902 or CS 901, and 30 credits in total

**Rationale:**
This course was created with the purpose of giving MSc Project Route students an option for course registration in situations where they had already completed all credit requirements, but had not yet defended their project report. The course was activated in 201830 in reaction to FGSR changing its regulations to only allow MSc Thesis Route students from registering in the Maintenance of Candidacy courses: GRST 995AA or GRST 995 AB.

FGSR has since reversed that change. Effective fall 2019, non-thesis based students will now be eligible to register for the post program maintenance courses (GRST 995AA full time and GRST 995AB part time). As a result, CS 903 will no longer be necessary effective 201930.

(end of Motion 1)
MOTION 2: New Courses
That the following two new courses be created effective 2020.
PHY 871 - Experimental Methods of Subatomic Physics
PHY 885 – Approved Summer School

**PHY 871 Experimental Methods of Subatomic Physics (3)**
Basic techniques of experimental nuclear and particle physics. Interaction of particles in matter; cosmic rays and natural radiation; particle accelerators and beam optics; particle detection techniques; detector design issues; data acquisition systems.
Pre-Requisite: Permission of the Department Head

**Rationale:**
A large fraction of our incoming graduate students do not have any experience with subatomic physics instrumentation or data acquisition, and have been taking a hybrid class with PHY 471 listed as PHY 871. This course entry formalizes this arrangement. To properly set expectations, it would be helpful to also formalize and clarify the expectations of the graduate students compared to the undergraduates. The graduate students are expected to do a more sophisticated data analysis for each experiment (using ROOT), and to keep a more comprehensive logbook including detailed note taking and a discussion of the theory of each experiment. In addition, the graduate students will write a term report on one of the experiments (each student a different experiment, chosen in consultation with the instructor), including: theory discussion, physics goals of the experiment, context; detailed instructions on how to perform the experiment; data analysis, unexpected features of the data, and possibly a comparison to Monte Carlo simulation; statistical and systematic uncertainty analysis.

**PHY 885 Approved Summer School (1-3)**
This course is available to full-time Physics graduate students in good standing. Students will participate in a summer school offered by an approved institute. The school and credit award must be approved by a committee of 3 faculty members, consisting of Physics Graduate Coordinator, Department Head and one other member (typically the supervisor).
NOTE: This class can be taken more than once in a program, for a maximum total of 3 credit hours provided the institute and course content are different each time.

**Rationale:**
Many nationally and internationally recognized institutions offer summer schools for graduate students, including the TRIUMF Summer Institute (TSI), Tri-Institute Summer School on Elementary Particles (TRISEP), HUGS (Hampton University Graduate School) at Jefferson Lab, US National Nuclear Physics Summer School (NNPSS), etc. These schools offer unique opportunities for our graduate students to study specialized topics from experts. Typically, these summer schools are not formal classes (so they cannot be taken as transfer credit), but they are a very valuable learning experience for students. These courses would allow our students to participate in these schools for credit.

Students will only be able to take a maximum of 3 credit hours from such institutes during their degree program. Credit for each summer school would have to be approved by a committee of three faculty members, consisting of the Graduate Coordinator, Department Head, and one other member (typically the supervisor), who will also determine the number of credits (1-3) that
will be awarded for the summer school. The class will be a C/NC course; the student's grade will be determined by the committee, possibly with consultation with the institute offering the course. Students will be required to complete a short report or give a presentation about the course (all aspects of the evaluation will be decided by the committee when the course is approved).

(end of Motion 2)

6.4 JOHNSON-SHOYAMA GRADUATE SCHOOL OF PUBLIC POLICY

<table>
<thead>
<tr>
<th>MOTION 1: New Courses</th>
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<tbody>
<tr>
<td>That the following new courses be created effective 202010.</td>
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<tr>
<td>JSGS 856 – Health Information Privacy Policy</td>
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<td>JSGS 857 – Data Science for Analytics and Decision Support</td>
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<tr>
<td>JSGS 858 – Enterprise Information Management</td>
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<tr>
<td>JSGS 887 – Clinical Terminologies and Classification Systems</td>
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<tr>
<td>JSGS 888 – Health Informatics and Health Information Technology</td>
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**JSGS 856 Health Information Privacy Policy (3)**
This course covers legislation, regulation and standards governing access, use, and disclosure of health information, the ethics of information privacy, privacy program management, and privacy by design. Students will examine privacy, compliance, and risk policies and procedures, as well as emergent issues such as medical identity theft and fraud, genomic privacy, and social media health platform privacy.

**JSGS 857 Data Science for Analytics and Decision Support (3)**
This course covers the key data literacy and data analysis skills required to investigate complex data sets to answer pressing health care questions and effectively communicate results to peers. Taking a broad-but-shallow approach, the course follows the stages of the cross-industry standard process for data mining (CRISP-DM) data life cycle; students will learn to import and filter data using databases, how to prepare data for analysis, to choose appropriate data visualizations, to perform exploratory data analysis to understand the properties of data, to use modern machine learning techniques to analyze data, and how best to present your findings and use them to inform evidence-based decision making.

**JSGS 858 Enterprise Information Management (3)**
An in-depth analysis of health information functions critical to health care operations; enterprise information governance with a focus on information as a strategic asset; and the role of health information professionals in quality improvement, care coordination, and performance and utilization management. Implementing strategic and organizational change and integrating best practices in project management will also be covered.

**JSGS 887 Clinical Terminologies and Classification Systems (3)**
This course introduces the principles of taxonomy and purposes of controlled terminologies and classification systems used in Canada and internationally. It addresses the importance of standards conformance, design of semantically interoperable info structures, and the processes, policies and procedures used in the collection, coding, and mapping of health data. Labs require
working with health data sets and data tools.

**JSGS 888 Health Informatics and Health Information Technology (3)**

An integrative course on information technology used for tactical and strategic decision making in all facets of health care. Focuses on defining information needs, interpreting the capabilities of health information systems, setting forth feasible alternatives, adhering to international and national standards, and guiding the diffusion of information technology.

**Rationale:**

In order to create a Major in HIIM, these five new courses are required. These courses will appeal to new and current students interested in the varied health care administration and senior management roles that HIIM professionals assume in practice (e.g., chief information officer, privacy officer).

(end of Motion 1)

### MOTION 2: Health Informatics and Information Management (HIIM) Program

That the Health Informatics and Information Management (HIIM) within the Master of Health Administration be created effective 2020.

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>JSGS 814 Biostatistics for Public Health</td>
</tr>
<tr>
<td>1.5</td>
<td>JSGS 830AA MHA Residency I</td>
</tr>
<tr>
<td>1.5</td>
<td>JSGS 830AB MHA Residency II</td>
</tr>
<tr>
<td>3</td>
<td>JSGS 834 Financial Management of Health Care Organizations</td>
</tr>
<tr>
<td>3</td>
<td>JSGS 856 Health Information Privacy Policy</td>
</tr>
<tr>
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<tr>
<td>3</td>
<td>Elective in MHA program</td>
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<tr>
<td>3</td>
<td>Elective in MHA program</td>
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<tr>
<td><strong>30</strong></td>
<td><strong>Total</strong></td>
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</tbody>
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**Rationale:**

The Major in HIIM is designed around traditional subject matter and integrating newer areas of core competency to be responsive to future health information needs. As an advanced practice professional degree, students will strengthen analytical and evaluation skills, knowledge of health system collection and use of data, and overall leadership and strategic thinking abilities. This track will allow its graduates to step into new industry roles and functions as the health system undergoes change. The aim for the MHA Major in HIIM is to be accredited by the Canadian College of Health Information Management (CCHIM) / Canadian Health Information Management Association (CHIMA), or international equivalent. [Attachment 2]

(end of Motion 2)
FOR INFORMATION ONLY

Course Change

MATH 841 (441) General Topology
Introduction to homotopy groups, and to the homology and cohomology of topological spaces.
Prerequisite: MATH 341

7. Other Business

8. Adjournment