FOR APPROVAL **PUBLIC** **OPEN SESSION**

TO: UTSC Academic Affairs Committee

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DATE: October 14, 2021 for October 21, 2021

AGENDA ITEM: 2

ITEM IDENTIFICATION:

Minor Modifications: Undergraduate Curriculum Changes

JURISDICTIONAL INFORMATION:

University of Toronto Scarborough Academic Affairs Committee (AAC) "is concerned with matters affecting the teaching, learning and research functions of the Campus" (*AAC Terms of Reference, Section 4*). Under section 5.6 of its terms of reference, the Committee is responsible for approval of "Major and minor modifications to existing degree programs." The AAC has responsibility for the approval of Major and Minor modifications to existing programs as defined by the University of Toronto Quality Assurance Process (*UTQAP, Section 3.1*).

GOVERNANCE PATH:

1. **UTSC Academic Affairs Committee [For Approval] (October 21, 2021)**

PREVIOUS ACTION TAKEN:

No previous action in governance has been taken on this item.

HIGHLIGHTS:

This package includes out-of-cycle minor modifications of undergraduate courses that will be offered in Winter 2022, which require governance approval. Minor modifications to curriculum are understood as those that do not have a significant impact on program or course learning outcomes. They require governance approval when they modestly change the nature of a program or course.

- The Department of Historical and Cultural Studies (Report: Winter 2022 Out-of-Cycle New Courses)
    - 2 new courses
        - HISB96H3 Dangerous Ideas: Radical Books and Reimagined Worlds in Modern Europe
        - HISC22H3 The Second World War in Europe
- The Department of Management (Report: Winter 2022 Out-of-Cycle New Courses)
    - 2 new courses
        - MGOC15H3 Introductory Business Data Analytics
        - MGOC65H3 Economics of the Environment and Climate Change

FINANCIAL IMPLICATIONS:

There are no net implications to the campus operating budget.

RECOMMENDATION:

Be It Resolved,

THAT the proposed Humanities and Management undergraduate curriculum changes for the 2021-22 academic year, as detailed in the respective curriculum report, be approved.

DOCUMENTATION PROVIDED:

1. 2021-22 Curriculum Cycle: Undergraduate Minor Curriculum Modifications for Approval Out-of-Cycle Report: Winter 2022 Out-of-Cycle New Courses, dated October 4, 2021.

UNIVERSITY OF TORONTO SCARBOROUGH

2021-22 Curriculum Cycle
Undergraduate Minor Curriculum Modifications for Approval
Report: Winter 2022 Out-of-Cycle New Courses

October 4, 2021

Historical & Cultural Studies (UTSC), Department of

2 New Courses:

HISB96H3: Dangerous Ideas: Radical Books and Reimagined Worlds in Modern Europe

Contact Hours:

Description:
The course is an introduction to some of the most radical European ideas from the eighteenth to the twentieth century. We will study ideas that challenged the existing political order and aimed to overturn the social status quo, ideas that undermined centuries of religious belief and ideas that posed new visions of what it meant to be human. This will include the study of classic texts written by well-known intellectual figures, as well as the study of lesser-known writers and people who challenged the received wisdom of the day.
European Area

Prerequisites: None.

Corequisites: None.

Exclusions: None.

Recommended Preparation: None.

Enrolment Limits: None.

Note: None.

Learning Outcomes:
Upon completion of this course, students will be able to:
1. Analyze written works to understand their meaning, argument, structure, evidence, and authorial assumptions.
2. Analyze the relationship between ideas and their broad historical context (i.e., social, economic, political, and intellectual).
3. Synthesize large amounts of information and determine significance
4. Use evidence to support arguments.
5. Understand the role of ideas in large historical transformations.
6. Develop a perspective from which to critique the existing social and political order and understand its historical development.
7. Understand the way that modern European ideas were both emancipatory and repressive.

Topics Covered:
1. Emergence of the modern women's rights movement and the formation of feminism
2. Development of the idea of universal human rights

3. Emergence of modern liberal arguments for free speech and liberty
4. Emergence of modern socialism and communism
5. Challenge posed by Darwinian evolution
6. Challenges of imagining a world without a god or gods
7. Development of psychoanalysis and the idea of the unconscious mind
8. Development of critiques of European Colonialism

Methods of Assessment:
Students will be assessed on participation in tutorials, written reader response journals, and through a series of scaffolded writing assignments, that will include two short papers and a longer final essay.

Mode of Delivery:
In Class

Breadth Requirements:
History, Philosophy & Cultural Studies

Rationale:
This course is being offered to expand B-level course offerings in European History. Currently there are only two B-level courses (HISB93 and HISB94, which are two parts of a survey of Modern European history as a whole). This new course complements those offerings by focusing on the history of ideas and introducing students to modern European history through a series of case studies of important ideas and themes that grew out of the historical context and challenged the existing order of things. Many of the ideas that are the focus of the course had great effects and consequences in European and world history. This is particularly true of the development of Liberalism, Socialism, Feminism, Darwinism, Secularism, and critiques of Colonialism. The content and consequences of these ideas still has great relevance for our contemporary world. The course will enable students to grasp the connections between this past and our world today, it will also present them skills and perspectives to utilize in their continued study of History as well as their study of topics in the other programs in the Department of Historical and Cultural Studies.
The course will serve the general student body as well as specialists, majors, and minors in History.
This new course will not replace any existing courses.
This course will cover the same time period in European History as HISB93 and HISB94, but it will have a different focus. The existing courses survey all aspects of this history including politics, economics, industrial transformations, warfare, social developments, cultural change, and artistic production. This new course will have a narrower focus on ideas. The courses will complement one another since the more that students know about the general historical context the more they will get out of a study of ideas and vice versa.

Consultation:
Consultation was done with the Chair HCS, the full Curriculum Committee of HCS, and the Program Coordinator of History. The Registrar's Office approved the new course code on August 31, 2021. The proposal was approved by the HCS DCC on September 10, 2021.

Resources:
The course will be taught by regular faculty. The course will require TA support if the enrollment is above the unit's agreed upon threshold for receiving TA support. The TA Support will be covered by the existing budget of the unit.

HISC22H3: The Second World War in Europe

Contact Hours:

Description:
This course examines the impact of Second World War on the political, social, and cultural fabric of European societies. Beyond the military and political history of the war, it will engage topics including, but not limited to, geopolitical and ideological contexts; occupation, collaboration and resistance; the lives of combatants and civilians in total war; the Holocaust and the radicalisation of violence; and postwar memory.
European Area

Prerequisites:
Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses

Corequisites: None.

Exclusions: None.

Recommended Preparation: None.

Enrolment Limits: None.

Note: None.

Learning Outcomes:
Upon the completion of this course, students will be able to:
1. Read primary sources critically and contextually
2. Master and critically engage with historiographical debates surrounding the war
3. Formulate contestable and critical interpretations of key historical problems, supported by detailed argumentation and evidence
4. Build historical understanding of the contexts, causes and outcomes of the Second World War
5. Understand the relationship between the war and genocide
6. Trace the war's impact on and continued resonance for contemporary societies.

Topics Covered:
1. Causes and contexts of the Second World War in Europe
2. Pivotal political and military developments
3. Total war: experiences of combatants and civilians
4. Collaboration and resistance
5. The Holocaust and the radicalization of violence
6. Liberation and postwar reconstruction
7. Legacies and contested memories of the war

Methods of Assessment:
Students will post weekly reading responses to the online discussion board; these in turn will serve as scaffolding for midterm and final papers in which they draw on the assigned primary and secondary sources to construct an argument responding to a major historiographical debate surrounding the war. This format allows them to dissect the texts collectively and then refine their ideas in the longer argumentative essays.

Mode of Delivery:
In Class

Breadth Requirements:
History, Philosophy & Cultural Studies

Rationale:
This course will expand Historical and Cultural Studies' offerings in twentieth-century and contemporary European history. It provides an opportunity for students to deepen and problematize their understanding of WW2, the Holocaust, and their enduring legacies. It also complements existing course offerings in Canadian, United States, African and Asian history that include discussions of WW2's impact on global societies. Currently, there are no courses devoted to the war or the Holocaust at UTSC, though there are comparable offerings at St. George and Mississauga.
The course will be offered as a C level elective and will also emphasize the development of students' skills in the critical reading of primary and secondary sources, as well as writing and argumentation. The class will also explore visual culture, including both contemporary artefacts (propaganda, newsreels, etc.) and subsequent representations on film, television and digital media.

Consultation:
New course code was approved by the Office of the Registrar on August 31, 2021.
Proposal was approved by HCS DCC on September 10, 2021.

Resources:
This course will be taught by regular faculty. If TA support is required, it will be covered by the unit's existing budgets.

Management (UTSC), Department of

2 New Courses:

MGEC65H3: Economics of the Environment and Climate Change

Contact Hours:

Description:
This course provides an Economic framework to understand issues around the environment and climate change. The economic toolkit to understand these issues includes externalities, tradeoffs, cost-benefit analysis, marginal analysis, and dynamic accounting. The course will cover optimal policy approaches to pollution, carbon emissions, and resource extraction. These include carbon taxes, subsidies, cap-and-trade systems, bans, and quotas. Both theoretical and empirical approaches in Economics will be discussed.

Prerequisites:
MGEB02H3 and MGEB12H3

Corequisites: None.

Exclusions: None.

Recommended Preparation: None.

Enrolment Limits:
40

Note: None.

Learning Outcomes:
Upon completion of this course, students will be able to:
1. Conduct statistical analysis, including the ability to answer policy-related questions using analytic and quantitative techniques. Examples include multiple regression, maximum likelihood, and extracting useful information from large datasets which can then be presented in visual form.
2. Understand and appreciate trade-offs in crafting public policy. For example, understanding both the social and economic costs of carbon taxes in conjunction with their environmental benefits.
3. Appreciate the limits of market-based solutions in achieving desirable and efficient outcomes. Specifically, understanding why profit- or utility-maximizing choices by firms and individuals can lead to welfare-reducing environmental outcomes.
4. Think critically about choices made by governments, firms, and individuals in the context of environmental issues.
5. Understand the importance of incentives in explaining the behaviour of individuals and firms.
6. Source, cite and critique academic research in the area.

Topics Covered:
1. Externalities, market failure and public goods
2. Market and non-market approaches to pollution and emissions.
3. Carbon taxes and the cap-and-trade system.
4. Free-riding and border leakage effects.
5. Subsidies and incentives.
6. Economic methods for preventing or mitigating carbon emissions and their consequences.

Methods of Assessment:
Assessment will consist of a midterm and final exam, and three to four individual assignments. The assignments will need to be completed in R, or comparable statistical programming software. Exam questions will test students' understanding of the trade-offs around environmental regulation, the costs and benefits of various approaches, and their recollection and understanding of the academic literature in environmental economics.

Mode of Delivery:
In Class

Breadth Requirements:

Social & Behavioural Sciences

Rationale:
Economic analysis is a key tool for understanding optimal policies towards the environment. The economics framework has been traditionally applied to classic environmental issues such as air and water pollution; forest management; sustainable fishing; plastic recycling etc. But this field has received a huge and urgent impetus due to the crisis of climate change. Policy-related issues now include carbon taxes, green technology subsidies, cap-and-trade programs, etc.
There is currently no course at UTSC that incorporates economic analysis of environmental and climate-related issues. Given the high level of interest from students, the increased attention from policymakers, and the fierce urgency of the climate crisis, it is long overdue that such a course is offered.
There is a course at the St. George campus (Environmental Economics & Policies, ECO313) that is similar in some ways, however, that course goes much deeper into one particular area—resource extraction—and places less emphasis on the other issues around environmental economics that this course proposes. Moreover, that course is offered infrequently and, is also difficult for students at UTSC to get access to. That course is also sufficiently differentiated from MGEC65H3 that it does not need to be listed as an exclusion for this proposed course.
MGEC65H3 will serve specialist students in Economics and can act as an elective for students in the BBA program and students in other disciplines at UTSC. However, we recognize that the pre-requisite structure of the course may cause barriers to students in departments outside of Management.
The required prerequisites are MGEB02H3 (Price Theory) and MGEB12H3 (Quantitative Methods in Economics). MGEB02 provides the necessary theoretical underpinning to understand the economic models that the course will use, while MGEB12H3 provides the statistical and econometric background that students will need for empirical analysis in this area.
Limit of 40 students. This course will be discussion-intensive and will also require students to complete projects and assignments using statistical programming software, which requires more intensive one-on-one time.

Consultation:
Ambarish Chandra consulted with Elizabeth Dhuey, and the Area Coordinator for Economics, before proposing this new course. They agreed that Prof. Chandra has the necessary background and expertise to deliver this course. In addition, Professor Chandra has consulted with noted environmental economists at other institutions (notably, Sumeet Gulati) at UBS to obtain feedback and advice on designing this course. Professor Chandra has also consulted the outlines for similar courses taught at other institutions.
Professor Chandra has also sent this proposal to colleagues at DPES and is waiting to hear any feedback they may have, which can then be incorporated into the course.
The new course code was approved by Tammy Parsonson in the Registrar's office on June 14, 2021.
Curriculum Committee approved the course on September 17, 2021.

Resources:
This course will be taught by regular faculty (Ambarish Chandra). There are no resources required, as it will be part of the faculty member’s regular, on-load teaching. The course will require TA support for which the department’s existing budget will be used. No equipment, laboratory resources, or other fees will be required.

MGOC15H3: Introductory Business Data Analytics

Contact Hours:

Description:
The course lays the foundation of business data analytics and its application to Management. Using state-of-the-art computational tools, students learn the fundamentals of processing, visualizing, and identifying patterns from data to draw actionable insights and improve decision making in business processes.

Prerequisites:
MGEB12H3

Corequisites:
MGOC10H3

Exclusions:
MGT458H5, (MGOD30H3)

Recommended Preparation: None.

Enrolment Limits:
40

Note: None.

Learning Outcomes:
The course MGOC15H3 – Introductory Business Data Analytics provides the core principles of data analytics for Management students. Lectures will equip students with cutting-edge approaches to clean, process, visualize and identify patterns from small or large-scale data sources to address modern business challenges. Specifically, students will learn how to write a Managerial narrative from data to draw actionable insights and improve decision making.
Upon the completion of this course, students will be able to:
1. Retrieve and merge disparate data sources, including scrapping and advanced tools for non-structured data (e.g., extracting information from tweets or videos).
2. Clean data to ensure that statistical inference is reliable and unbiased. For example, how to handle missing fields from data, identify inconsistencies, or transform data to make it more suitable for advanced analysis (e.g., Normalization).
3. Conduct exploratory data analysis to identify patterns from data. For example, how to use correlation techniques in a principled way to draw associations between different data pieces, such as sales of a product and customer classes.
4. Use data visualization tools to communicate the insights from data in a clear, ethical, and effective way. This ranges from classical plots and their benefits/limitations to sophisticated dashboards using dynamic plots that Managers can adjust in real-time.
These tools are now fundamental within all areas of modern Management, where data plays a key role in the business processes. Once equipped with this structured information, students can leverage analytics models from our co-requisite, Analytics for Decision Making, to extract the value of data for evidence-based managerial decisions.

Topics Covered:
1. Introduction to the Analytics Process
   - Designing Managerial questions from data
   - Data representation, examples of Analytics in Management
   - Ethical implications of data.
2. Data Retrieval:
   - Structured and unstructured data sources
   - Basics of Structured Query Language (SQL) and non-SQL languages (document/graph) to extract information from (Big) data.
   - Scrapping, merging data sets.
3. Data Manipulation
   - Slicing, filtering, merging, and pivoting data to prepare it for analytics.
   - Boolean operations for conditional reasoning on data.
4. Data Cleaning:
   - Techniques to identify field inconsistencies or bias in data
   - Removal and imputation strategies
5. Exploratory Data Analysis: Basic and Advanced Methods
   - Methodological strategies to identify patterns from data
   - Discrete vs. continuous variable analysis
   - Advanced non-linear correlations (e.g., rank correlations), addressing and comparing non-Normal distributions.
6. Data Visualization and Communication
   - Basic plots and what they convey (or not convey)
   - Dashboards via PowerBI and Tableau
   - Dynamic plotting schemes

Finally, in collaboration with the BRIDGE, the course will offer basic programming tutorials in Python, R, and PowerBI to augment lectures

Methods of Assessment:
Students will work on hands-on problems in the form of assignments inspired by real-world scenarios. These will comprise most of the course grade. Their rationale is to emphasize practice in a wide array of data techniques and concepts. Further, there will also be a midterm and a final exam. The assignments, midterm, and final exam will account for 30%, 25%, and 45% of the course grade, respectively.
The final assignment will be more extensive and require a 10 to 15-page written report on a challenging data analytics problem. It will involve a large-scale dataset (e.g., not loadable in a regular machine) using resources from the BRIDGE. All reports will be evaluated based on the soundness of the approach (50% of the grade), correct use of the software (25%),

and quality of writing/presentation (25%). The last component evaluates the appropriate use of plots and tables to visualize the data.

Mode of Delivery:
In Class

Breadth Requirements:
Quantitative Reasoning

Rationale:
The material covered here corresponds to the first half of a proposed new course MGOD31H3 – Advanced Business Analytics which replaces MGOD30H3. Although MGOD30H3 was received exceptionally well by students, three comments have been pervasive from the course evaluations and students' feedback:

1. Students would like to have such data skills in their second or third year, as opposed to the fourth year when the course is offered. They indicated that many of the techniques they learn in class, such as efficient manipulation of datasets, would have been significantly helpful both for their work terms as well as for other courses in Management.
2. The course content is relatively compressed given the nature of the skills involved. Students learn techniques that require non-trivial technologies for processing and visualizing data, which is also challenging for individuals who already have programming experience from previous courses.
3. Students expressed strong interest in spending more time on the experiential learning project offered by MGOD30H3.

Given that the introductory data material will be already covered in MGOC15H3, we can expand the advanced content as well as the project engagement of MGOD30H3, both of which would now become the central scope of the new course MGOD31H3.
With expanding the advanced content of course materials, we thought it would be better to retire MGOD30H3 and create two new courses MGOC15H3 and MGOD31H3 which would then have the capacity to incorporate all the changes; as well as focus on the experiential learning component and advanced Managerial aspects.
We are requesting an enrollment limit of 40 students because of the extensive use of computational tools. In particular, the course requires constant communication between instructors and individual students to aid with their programming questions in class and other technical aspects of our tools, given the interactive design of the lectures.
Finally, the pre-requisite MGEB12H3 – Quantitative Methods in Economics II is required because the proposed course makes ample use of fundamental statistical techniques for data cleaning and exploratory analysis, such as hypothesis testing (as a statistical technique to gather evidence from data), confidence intervals (to understand the impact of sample size), and multiple linear regression (as a basis for more advanced regression methods, such as logistic regression). These topics are covered extensively in MGEB12H3. The co-requisite MGOC10H3 - Analytics for Decision Making, in turn, provides skills on how to translate data insights into managerial actions through mathematical models. More specifically, students learn the required data types and structure that such models require as input for effective decision-making. These are key skills when choosing the appropriate data cleaning strategies and data manipulations that are extensively covered in MGOC10H3.

Consultation:
Internal Consultation (Dept. of Management, UTSC):

- Prof. Hugh Lawrence (Strategy)
- Prof. Tarun Dewan (Marketing)
- Prof. Igor Averbakh (Operations)

The Departmental Curriculum Committee approved this proposal on February 18, 2021
New course code was approved by Tammy Parsonson in the Registrar's office on Jan. 21, 2021

Resources:
The course will use BRIDGE resources that are already in place. Specifically, computers and lab time for our lectures. All tools considered (Python, PowerBI, Tableau) are either free or free-to-use for academic purposes, where we can obtain special licenses. The course will be taught by regular Operations/Analytics faculty and will require regular TA support covered by the unit's existing budget.