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MEMORANDUM

ATTENTION Senate

DATE October 15, 2020

FROM Jeff Derksen,
Chair of Senate Graduate Studies
Committee (SGSC)

RE: Program Change



For information:

Acting under delegated authority at its meeting of October 6, 2020, SGSC approved the following program change, effective **Summer 2021**:

Faculty of Communication, Art and Technology
School of Interactive Arts and Technology

- 1) Program change (Degree Audit, program changes): Visual Analytics Graduate Certificate



MEMORANDUM

ATTENTION:	Senate Graduate Studies Committee
FROM:	Philippe Pasquier, Chair, FCAT Graduate Studies Committee
RE:	SIAT Program and Course Changes
DATE:	September 2, 2020

FCAT GSC has voted to approve the changes to SIAT's Visual Analytics Graduate Certificate ~~and associated seminar course.~~

Please put this item on the next SGSC agenda. In addition to this memo, please find enclosed the respective supporting documents.

Sincerely,

Philippe Pasquier, Ph.D.
Associate Dean, Academic, FCAT
Chair, FCAT Graduate Studies Committee

cc Halil Erhan, Graduate Program Chair, SIAT

stw/PP



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MEMORANDUM

ATTENTION Philippe Pasquier **DATE** July 28, 2020
FROM Halil Erhan, SIAT Graduate Program Chair **PAGES** 1
RE: SIAT Visual Analytics Certificate Structure Change

The School of Interactive Arts and Technology has recently approved a structure change to the Visual Analytics Certificate ~~and a related unit increase of the Visual Analytics Seminar Course~~. These changes were approved by the School of Interactive Arts and Technology on July 22nd, 2020.

Halil Erhan
Associate Professor and Graduate Chair,
School of Interactive Arts and Technology,
Simon Fraser University



SIMON FRASER UNIVERSITY
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Current Format

STUDENT SERVICES
Fall Calendar

Please note:

To view the Summer 2020 Academic Calendar, go to www.sfu.ca/students/calendar/2020/summer.html.

School of Interactive Arts and Technology | Faculty of Communication, Art and Technology
Simon Fraser University Calendar | Fall 2020

Visual Analytics

GRADUATE CERTIFICATE

The graduate certificate in visual analytics (VA) is an interdisciplinary graduate program consisting of technology and theory courses along with courses on applications of this new field from the Schools of Interactive Arts and Technology and Computing Science, from the Faculty of Business, Faculty of Education, and the Faculty of Communication, Art and Technology.

The graduate certificate combines the four key aspects of visual analytics: cognition, technology, society, and integration. Integration is realized in a practical sense through completion of a substantial research project using visual analytics methods, typically the student's thesis work or a separate significant research project. This falls under the jurisdiction of the student's department or school, and is thus outside of the scope of requirements for the VA Certificate. Support for integration is provided by the VA Certificate program however, through facilitating participation of the Certificate Management Committee members on supervisory committees and through the Visual Analytics seminar series.

The program is offered at the Burnaby and Surrey campuses.

For further information, visit <http://www.sfu.ca/siat/grad.html>.

Admission Requirements

Prospective students must apply to Simon Fraser University for admission and meet the normal admission requirements for a graduate degree prior to undertaking the VA Graduate Certificate Program. The VA Certificate program does not allow direct admission.

Certificate students must be enrolled and in good standing in a graduate degree program at SFU, and must graduate in order to receive the Certificate. Qualified students should submit their registration information to the VA Certificate Program Steering Committee as early as possible. Upon registration they will be classified as a VA Certificate Student and placed on the mailing list for announcements of VA events such as lectures and special courses.

Program Requirements

Students complete a total of five courses, including

IAT 856 - Visual Analytics Graduate Seminar (1)

and four additional courses from at least two different Schools and must include at least one from each of the following three lists of courses

Cognitive Processes

Courses fulfilling this requirement must cover the cognitive processes that underlie analytic practice, grounded in the practical application of VA technologies to support human cognitive processes.

EDUC 892 - Cognitive Tools and Multimedia Learning (4)

IAT 812 - Cognition, Learning and Collaboration (3)

IAT 854 - Visually Enabled Reasoning (3)

Visual Analytics Technology

Courses fulfilling this requirement examine the creation, selection, and customization of information systems in the student's discipline or area of interest. This includes data processing and modeling as well as interactive visualization.

BUS 709 - Managing Information (3)

CMPT 721 - Knowledge Representation and Reasoning (3)

CMPT 767 - Visualization (3)

IAT 813 - Artificial Intelligence in Computational Art and Design (3)

IAT 814 - Visualization and Visual Analytics (3)

Social Systems

Courses fulfilling this requirement examine the impact of advanced visual analytic technology on individuals, organizations, and society in order to determine how it can best be designed and introduced to support social and collaborative processes.

BUS 621 - Information Technology and Organizational Transformation (4)

CMNS 815 - Social Construction of Communication Technologies (5)

EDUC 893 - Organizational and Social Aspects of Learning Technology Design (4)

Course Lists

Other courses that achieve the same goals, e.g. special topics courses, can be proposed by departments or schools to the VA Certificate Committee.

Students may also petition for approval of a course by the committee. Upon approval by the committee the course will be added to the list of approved courses in the appropriate category. A maximum of two courses can be from the student's home department.

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CALENDAR ENTRY

Visual Analytics

GRADUATE CERTIFICATE

Description of Program

The graduate certificate in visual analytics (VA) is an interdisciplinary graduate program consisting of technology and theory courses along with courses on applications of this new field from the Schools of Interactive Arts and Technology and Computing Science, from the Faculty of Business, Faculty of Education, and the Faculty of Communication, Art and Technology.

The graduate certificate combines the four key aspects of visual analytics: cognition, technology, society, and integration. Integration is realized in a practical sense through completion of a substantial research project using visual analytics methods, typically the student's thesis work or a separate significant research project. This falls under the jurisdiction of the student's department or school, and is thus outside of the scope of requirements for the VA graduate certificate. Support for integration is provided by the VA graduate certificate program however, through facilitating participation of the SIAT Graduate Program Committee members on supervisory committees and through the Visual Analytics seminar series.

The program is offered at the Burnaby and Surrey campuses.

For further information, visit <http://www.sfu.ca/siat/grad.html>.

Admission Requirements

Applicants must satisfy the University admission requirements as stated in the [Graduate General Regulations 1.3](#) in the SFU Calendar. There is no direct entry to the VA graduate certificate.

VA graduate certificate students must be enrolled and in good standing in a graduate degree program at SFU, and must graduate in order to receive the graduate certificate. Qualified students should submit their registration information to the SIAT Graduate Program Committee as early as possible.

Program Requirements

This program consists of course work for a minimum of 12 units.

Students complete

IAT 856 - Visual Analytics Graduate Seminar (3)

and three additional courses that in total cover the following areas. Course selection must be approved by the SIAT Graduate Program Committee.

Cognitive Processes

Courses fulfilling this requirement must cover the cognitive processes that underlie analytic practice and human problem-solving. Course work may include:

EDUC 892 - Cognitive Tools and Multimedia Learning (4)

IAT 812 - Cognition, Learning and Collaboration (3)

PSYC 925 - Seminar in Cognitive Processes (3)

Visual Analytics Technology

REVISED
CALENDAR ENTRY

Courses fulfilling this requirement examine the creation, selection, and customization of information systems in the student's discipline or area of interest. This includes data processing and modeling as well as interactive visualization. Course work may include:

BUS 709 - Managing Information (3)

CMPT 767 – Visualization (3)

IAT 814 - Visualization and Visual Analytics (3)

GEOG 657 – Geovisualization Interfaces (4)

Social Systems

Courses fulfilling this requirement examine the impact of advanced data technology on individuals, organizations, and society in order to determine how it can best be designed and introduced to support social and collaborative processes. Course work may include:

BUS 621 - Information Technology and Organizational Transformation (4)

CMNS 815 - Social Construction of Communication Technologies (5)

CRIM 812 – Criminal Networks (3)

PSYC 960 – Seminar in Social Psychology (3)

REM 625 - Risk Assessment and Decision Analysis for Management of Natural Resources (3)

IAT 803 - Science, Technology and Culture (3)

Subject to SIAT Graduate Program Committee approval, students may fulfill these requirements through other appropriate graduate courses at Simon Fraser University.

Course work must be selected from at least two academic units, with a maximum of two courses from the student's home department.

Program Length

Students are expected to complete the program requirements within the normal completion time of their graduate degree.

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.