UNIVERSITY
AT ALBANY
State University of New York

Senior Vice President for Academic Affairs & Provost

May 29, 2018

Dr. Jinliu (Grace) Wang
Interim Provost and Vice Chancellor for Academic Affairs
State University of New York
State University Plaza
Albany, NY 12246

Dear Dr. Wang:

On behalf of the faculty at the University at Albany, I am pleased to transmit a proposal for curricular update to our existing M.S. program in Information Science, adding two additional concentration tracks.

This proposal has been fully considered and approved through our campus governance system. We are appreciative for anticipated efforts by staff in your Office of Program Review for the consideration of the proposal. Should there be any technical questions or the need for additional materials, please have inquiries directed to Jonathan Bartow, Vice Dean for Graduate Education (jbartow@albany.edu) at our campus. As always, we thank you for your on-going support.

Sincerely,

James R. Stellar
Senior Vice President for Academic Affairs and Provost

Enclosure
c. Dean Kevin Williams
Dean Robert Griffin
Vice Dean Jon Bartow

University Hall, 308
1400 Washington Avenue, Albany, New York 12222
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SUNY The State University of New York

Program Revision Proposal: Changes to an Existing Program

Form 3A

Version 2016-10-13

SUNY approval and SED registration are required for many changes to registered programs. To request a change to a registered program leading to an undergraduate degree, a graduate degree, or a certificate that does not involve the creation of a new program,[1] a Chief Executive or Chief Academic Officer must submit **a signed cover letter and this completed form** to the SUNY Provost at *program.review@suny.edu*.

Section 1. General Information		
a) Institutional Information	Institution's 6-digit SED Code:	**210500**
	Institution's Name:	**University at Albany, SUNY**
	Address:	***1400 Washington Avenue, Albany, NY 12222***
b) Program Locations	List each campus where the entire program will be offered (with each institutional or branch campus 6-digit SED Code): Albany 210500	
	List the name and address of off-campus locations (i.e., extension sites or extension centers) where courses will offered, **or check here [X] if not applicable**:	
c) Registered Program to be Changed	Program Title:	**Information Science**
	SED Program Code	**91339 - Information Science** **The revised MSIS Program additionally updates multi-award bachelor/master's and MA/MS programs with the following SED Program Codes: 28812-28829, 28831, 28833-28834, 28836-28849, 28851, 28853-28860, 28869, 29079, 89052 & 89063.**
	Award(s) (e.g., A.A., B.S.):	M.S.
	Number of Required Credits:	Minimum [36] If tracks or options, largest minimum [ ]
	HEGIS Code:	1601
	CIP 2010 Code:	11.0401
	Effective Date of Change:	August 1, 2018
	Effective Date of Completion[2]	
d) Campus Contact	Name and title: **Jonathan Bartow, Vice Dean for Graduate Education** Telephone and email: **Telephone: (518) 437-5062, E-mail: jbartow@albany.edu**	
e) Chief Executive or Chief Academic Officer Approval	**Signature affirms that the proposal has met all applicable campus administrative and shared governance procedures for consultation, and the institution's commitment to support the proposed program.** ***E-signatures are acceptable.*** Name and title: **James R. Stellar, Provost and Senior Vice President for Academic Affairs** Signature and date: 6/5/18	
	If the program will be registered jointly[3] with one or more other institutions, provide the following information for each institution:	
	Partner institution's name and 6-digit SED Code: N/A	

[1] To propose changes that would create a new program, Form 3B, Creating a New Program from Existing Program(s), is required.

[2] If the current program(s) must remain registered until enrolled students have graduated, the anticipated effective date by which continuing students will have completed the current version of the program(s).

[3] If the partner institution is non-degree-granting, see SED's CEO Memo 94-04.

	Name, title, and signature of partner institution's CEO (or **append** a signed letter indicating approval of this proposal):

Section 2. Program Information

Section 2.1. Changes in Program Content

[ ] No changes in program content. *Proceed to Section 2.2.*

a) Check all that apply. Describe each proposed change and why it is proposed.

[ ] Cumulative change from SED's last approval of the registered program of one-third or more of the minimum credits required for the award (e.g., 20 credits for associate degree programs, 40 credits for bachelor's degree programs)
[ ] Changes in a program's focus or design
[X] Adding or eliminating one or more options, concentrations or tracks. *This revision is contingent upon prior action on the M.S. Information Science program update proposal submitted to NYSED in March 2018.*

[ ] Eliminating a requirement for program completion (such as an internship, clinical placement, cooperative education, or other work or field-based experience). Adding such requirements must remain in compliance with SUNY credit cap limits.
[ ] Altering the liberal arts and science content in a way that changes the degree classification of an undergraduate program, as defined in Section 3.47(c)(1-4) of Regents Rules

The University at Albany's MS degree in Information Science (MSIS) provides a strong basis for knowledge and information-based study and careers. As the world of data, information, and knowledge evolves, so too will our degree. Currently, we propose to add two new concentrations to our degree. These concentrations are in Intelligence Analysis and Data Analytics.

Both Intelligence Analysis and Data Analytics are high job growth areas (US Bureau of Labor Statistics, Occupational Outlook Handbook) with employers who are searching for candidates with strong credentials and experience beyond and undergraduate degree although not necessarily at the PhD level. In addition, the large number of undergraduates in our Bachelors programs include a significant number seeking graduate degrees in these and other areas. Currently those students seek other programs, frequently at other Universities. This presents a growth opportunity for the University.

The Intelligence Analysis concentration takes advantage of the University's new College of Emergency Preparedness, Homeland Security, and Cybersecurity (CEHC), of which the MSIS program is now a part. The existing MSIS provides a suitable framework for an Intelligence Analysis concentration that is heavily dependent on the knowledge of the acquisition, management, and analysis of information—the core focus of the MSIS.

The Data Analytics concentration will add a strong, forward-looking technical dimension to the MSIS program. As sensors, computers, and networks provide more and more data about our world, it is important that we be able to gather, store, analyze and base predictions upon these data. In the context of the MSIS, this concentration is about the active, technical efforts to gather data, and to turn it into actionable knowledge. Approaching it from the information and knowledge-based perspective of the MSIS program differentiates it from other disciplinary approaches to data analysis, such as computer science, or mathematics/statistics. The program also leverages, and ties into, existing concentrations in CEHC's Informatics BS program, and its Information Science Ph.D. program.

b) **Provide** a side-by-side comparison of all the courses in the existing and proposed revised program that clearly indicates all new or significantly revised courses, and other changes.

36 Credit MSIS Program	Proposed 36 Credit MSIS Program
IST 601: The Information Environment (3)	IST 601: The Information Environment (3)
IST 602: Information and Knowledge Organization (3)	IST 602: Information and Knowledge Organization (3)
IST 608: Research Methods (3)	IST 608: Research Methods (3)
IST 614: Administration of Information Agencies (3)	IST 614: Administration of Information Agencies (3)
IST 668: Internship (3)	IST 668: Internship (3)
Archives/Records Administration Track	Archives/Records Administration Track
Core/Required Track Courses: -IST 546: Fundamentals of Records Management (3) -IST 547: Electronic Records Management (3) -IST 654: Preservation Management in Archives and Libraries (3) [or IST 660: Archival Representation (3)] - IST 656: Archives and Manuscripts (3)	Core/Required Track Courses: -IST 546: Fundamentals of Records Management (3) -IST 547: Electronic Records Management (3) -IST 654: Preservation Management in Archives and Libraries (3) [or IST 660: Archival Representation (3)] - IST 656: Archives and Manuscripts (3)
Track Electives: 9 credits	Track Electives: 9 credits
Library and Information Services Track	Library and Information Services Track
Core/Required Track Courses: -IST 603: Information Processing (3) -IST 605: Information Sources and Services (3)	Core/Required Track Courses: -IST 603: Information Processing (3) -IST 605: Information Sources and Services (3)
Track Electives: 15 credits	Track Electives: 15 credits
Information Management & Technology Track	Information Management & Technology Track
Core/Required Track Courses: -IST 533: Information Storage and Retrieval (3) -IST 611: Information Systems (3) -IST 565: Human Information Behavior (3) -IST 560: Information and Public Policy (3)	Core/Required Track Courses: -IST 533: Information Storage and Retrieval (3) -IST 611: Information Systems (3) -IST 565: Human Information Behavior (3) -IST 560: Information and Public Policy (3)
Track Electives: 9 credits	Track Electives: 9 credits
	Intelligence Analysis Track
	Required Track Courses: **-EHC 557 Intelligence Analysis (4)** **-IST 667 Intelligence Analysis Research Seminar (3)**
	Tool Options: 3-4 credits, new course: **-IST 529 Text Analysis (3)**
	Track Electives: 12 credits, new courses: **-EHC 628 Leaders and Individual Assessment (3)** **-EHC 629 Transnational Organized Crime (3)**
	Data Analytics Track
	Required Track Courses: **-IST 506 Database Systems and Data Analysis (3)** **-INF 624 Predictive Modeling (3)**
	Tool Options: 3-4 credits, new course: **-IST 529 Text Analysis (3)**
	Track Electives: 12 credits, new courses: **-INF 625 Data Mining (3)** **-INF 626 Big Data and Stream Analytics (3)**

	-INF 627 Data Analytics Practicum (3)

c) For each new or significantly revised course, **provide** a syllabus at the end of this form, and, on the ***SUNY Faculty Table*** provide the name, qualifications, and relevant experience of the faculty teaching each new or significantly revised course. NOTE: *Syllabi for all courses should be available upon request. Each syllabus should show that all work for credit is college level and of the appropriate rigor. Syllabi generally include a course description, prerequisites and corequisites, the number of lecture and/or other contact hours per week, credits allocated (consistent with SUNY policy on credit/contact hours), general course requirements, and expected student learning outcomes.*

See syllabi at end of form.

d) What are the additional costs of the change, if any? If there are no anticipated costs, explain why.

We anticipate the additional costs of this change to be two additional tenure track faculty and 1 staff support person to administer the program and the internship requirement.

Section 2.2. Other Changes

Check all that apply. Describe each proposed change and why it is proposed.

[ ] Program title
[ ] Program award
[ ] Mode of delivery
NOTES: *(1) If the change in delivery enables students to complete 50% of more of the program via distance education, submit a Distance Education Format Proposal* as part of this proposal. *(2) If the change involves adding an accelerated version of the program that impacts financial aid eligibility or licensure qualification, SED may register the version as a separate program.*
[ ] Format change(s) (e.g., from full-time to part-time), based on SED definitions, for the **entire** program
1) State proposed format(s) and consider the consequences for financial aid
2) Describe availability of courses and any change in faculty, resources, or support services.
[ ] A change in the total number of credits in a certificate or advanced certificate program
[ ] Any change to a registered licensure-qualifying program, or the addition of licensure qualification to an existing program. **Exception:** Small changes in the required number of credits in a licensure-qualifying program that do not involve a course or courses that satisfy one of the required content areas in the profession.

Section 3. Program Schedule and Curriculum

a) For **undergraduate programs**, complete the ***SUNY Undergraduate Program Schedule*** to show the sequencing and scheduling of courses in the program. If the program has separate tracks or concentrations, complete a ***Program Schedule*** for each one.

NOTES: *The **Undergraduate Schedule** must show **all curricular requirements** and demonstrate that the program conforms to SUNY's and SED's policies.*

- *It must show how a student can complete all program requirements within SUNY credit limits, unless a longer period is selected as a format in Item 2.1(c): two years of full-time study (or the equivalent) and 64 credits for an associate degree, or four years of full-time study (or the equivalent) and 126 credits for a bachelor's degree. Bachelor's degree programs should have at least 45 credits of upper division study, with 24 in the major.*
- *It must show how students in A.A., A.S. and bachelor's programs can complete, within the first two years of full-time study (or 60 credits), no fewer than 30 credits in approved SUNY GER courses in the categories of Basic Communication and Mathematics, and in at least 5 of the following 8 categories: Natural Science, Social Science, American History, Western Civilization, Other World Civilizations, Humanities, the Arts and Foreign Languages*
- *It must show how students can complete Liberal Arts and Sciences (LAS) credits appropriate for the degree.*
- *When a SUNY Transfer Path applies to the program, it must show how students can complete the number of SUNY Transfer Path courses shown in the Transfer Path Requirement Summary within the first two years of full-time study (or 60 credits), consistent with SUNY's Student Seamless Transfer policy and MTP 2013-03.*
- *Requests for a program-level waiver of SUNY credit limits, SUNY GER and/or a SUNY Transfer Path require the campus to submit a Waiver Request –with compelling justification(s).*

EXAMPLE FOR ONE TERM: Undergraduate Program Schedule

Term 2: Fall 20xx	Credits per classification						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Prerequisite(s)**
ACC 101 Principles of Accounting	4			4	4		
MAT 111 College Mathematics	3	M	3	3			MAT 110
CMP 101 Introduction to Computers	3						
HUM 110 Speech	3	BC	3			X	
ENG 113 English 102	3	BC	3				
Term credit total:	16	6	9	7	4		

b) *For **graduate programs**, complete the **SUNY Graduate Program Schedule**. If the program has separate tracks or concentrations, complete a **Program Schedule** for each one.*

NOTE: *The **Graduate Schedule** must include all curriculum requirements and demonstrate that expectations from Part 52.2(c)(8) through (10) of the Regulations of the Commissioner of Education are met.*

SUNY Undergraduate Program Schedule (***OPTION: You can paste an Excel version of this schedule AFTER this line, and delete the rest of this page.***)

Program/Track Title and Award: _____

a) Indicate **academic calendar type:** [ ] Semester [ ] Quarter [ ] Trimester [ ] Other (describe):

b)

Term 1:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
Term credit totals:							

Term 2:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
Term credit totals:							

Term 3:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
Term credit totals:							

Term 4:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
Term credit totals:							

Term 5:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
Term credit totals:							

Term 6:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
Term credit totals:							

Term 7:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
Term credit totals:							

Term 8:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
Term credit totals:							

Program Totals (in credits):	**Total Credits:**	**SUNY GER:**	**LAS:**	**Major:**	**Elective & Other:**	**Upper Division:**	**Upper Division Major:**	**Number of SUNY GER Categories:**

KEY Cr: credits **GER:** SUNY General Education Requirement (Enter Category Abbreviation) **LAS:** Liberal Arts & Sciences (Enter credits) **Maj:** Major requirement (Enter credits) **TPath:** SUNY Transfer Path Courses (Enter credits) **New:** new course (Enter X) **Co/Prerequisite(s):** list co/prerequisite(s) for the noted courses **Upper Division:** Courses intended primarily for juniors and seniors **SUNY GER Category Abbreviations:** American History (AH), Basic Communication (BC), Foreign Language (FL), Humanities (H), Math (M), Natural Sciences (NS), Other World Civilizations (OW), Social Science (SS), The Arts (AR), Western Civilization (WC)

SUNY Graduate Program Schedule OPTION: You can insert an Excel version of this schedule AFTER this line, and delete the rest of this page.)

Program/Track Title and Award: Information Science, Data Analytics, M.S.

a) Indicate academic calendar type: [X] Semester [ ] Quarter [ ] Trimester [ ] Other (describe):
b) Label each term in sequence, consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)
c) Use the table to show how a typical student may progress through the program; copy/expand the table as needed.
d) Complete the last row to show program totals and comprehensive, culminating elements. Complete all columns that apply to a course.

Term 1:Fall 1

Course Number & Title	Credits	New	Co/Prerequisites
IST 601: The Information Environment	3		
IST 602: Information and Knowledge Organization	3		
Tools course elective	3		
IST 506: Database Systems and Data Analysis (formerly IST 658)	3		
Term credit total:	12		

Term 2:Spring 1

Course Number & Title	Credits	New	Co/Prerequisites
IST 614: Administration of Information Agencies	3		IST 602
INF 624: Predictive Modeling	3	X	IST 506
IST 608: Research Methods	3		
Data Analytics Elective	3		
Term credit total:	12		

Term 3: Fall 2

Course Number & Title	Credits	New	Co/Prerequisites
IST 668: Internship	3		
Data Analytics Elective	3		
Data Analytics Elective	3		
Data Analytics Elective	3		
Term credit total:	12		

Term 4:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 5:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 6:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 7:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 8:

Course Number & Title	Credits	New	Co/Prerequisites)
Term credit total:			

Program Total:	Total Credits: 36	Identify the required comprehensive, culminating element(s), such as a thesis or examination, including course number(s), if applicable: IST 668: Internship

New: X if new course **Prerequisite(s)**: list prerequisite(s) for the listed courses

SUNY Graduate Program Schedule ***OPTION: You can insert an Excel version of this schedule AFTER this line, and delete the rest of this page.)***

Program/Track Title and Award: Information Science, Intelligence Analysis, M.S.

e) Indicate **academic calendar** type: [X] Semester [ ] Quarter [ ] Trimester [ ] Other (describe):

f) **Label each term in sequence**, consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)

g) Use the table to show **how a typical student may progress through the program**; copy/expand the table as needed.

h) Complete the last row to show program totals and comprehensive, culminating elements. **Complete all columns that apply to a course.**

Term 1:Fall 1

Course Number & Title	Credits	New	Co/Prerequisites
IST 601: The Information Environment	3		
IST 602: Information and Knowledge Organization	3		
EHC 557: Intelligence Analysis	3		
Tools course elective	3		
Term credit total:	12		

Term 2:Spring 1

Course Number & Title	Credits	New	Co/Prerequisites
IST 614: Administration of Information Agencies	3		IST 602
IST 608: Research Methods	3		
Intelligence Analysis Elective	3		
Intelligence Analysis Elective	3		
Term credit total:	12		

Term 3: Fall 2

Course Number & Title	Credits	New	Co/Prerequisites
IST 667: Intelligence Analysis Research Seminar	3	X	
IST 668: Internship	3		
Intelligence Analysis Elective	3		
Intelligence Analysis Elective	3		
Term credit total:	12		

Term 4:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 5:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 6:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 7:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 8:

Course Number & Title	Credits	New	Co/Prerequisites)
Term credit total:			

Program Total:	Total Credits: 36	Identify the required comprehensive, culminating element(s), such as a thesis or examination, including course number(s), if applicable: IST 668: Internship

New: X if new course **Prerequisite(s)**: list prerequisite(s) for the listed courses

Program/Track Title and Award: Information Science, **Archives/Records Administration, M.S. (no change from March 2018 proposal)**

i) Indicate **academic calendar** type: [X] Semester [ ] Quarter [ ] Trimester [ ] Other (describe):

j) **Label each term in sequence**, consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)

k) Use the table to show **how a typical student may progress through the program**; copy/expand the table as needed.

l) Complete the last row to show program totals and comprehensive, culminating elements. **Complete all columns that apply to a course.**

Term 1:Fall 1

Course Number & Title	Credits	New	Co/Prerequisites
IST 601: The Information Environment	3		
IST 602: Information and Knowledge Organization	3		
IST 546: Fundamentals of Records Management	3		
IST 656: Archives and Manuscripts	3		
Term credit total:	12		

Term 2:Spring 1

Course Number & Title	Credits	New	Co/Prerequisites
IST 614: Administration of Information Agencies	3		
IST 547: Electronic Records Management	3		
IST 654: Preservation Management in Archives and Libraries [or IST 660: Archival Representation]	3		
IST 608: Research Methods	3		
Term credit total:	12		

Term 3: Fall 2

Course Number & Title	Credits	New	Co/Prerequisites
Elective	3		
IST 668: Internship	3		
Elective	3		
Elective	3		
Term credit total:	12		

Term 4:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 5:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 6:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 7:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 8:

Course Number & Title	Credits	New	Co/Prerequisites)
Term credit total:			

Program Total:	**Total Credits: 36**	**Identify the required comprehensive, culminating element(s), such as a thesis or examination, including course number(s), if applicable: IST 668: Internship**

New: X if new course **Prerequisite(s)**: list prerequisite(s) for the listed courses

SUNY Graduate Program Schedule ***OPTION: You can insert an Excel version of this schedule AFTER this line, and delete the rest of this page.)***

Program/Track Title and Award: Information Science, Library and Information Services, M.S. (no change from March 2018 proposal)

m) Indicate **academic calendar** type: [X] Semester [ ] Quarter [ ] Trimester [ ] Other (describe):

n) **Label each term in sequence,** consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)

o) Use the table to show **how a typical student may progress through the program**; copy/expand the table as needed.

p) Complete the last row to show program totals and comprehensive, culminating elements. **Complete all columns that apply to a course.**

Term 1:Fall 1

Course Number & Title	Credits	New	Co/Prerequisites
IST 601: The Information Environment	3		
IST 602: Information and Knowledge Organization	3		
IST 614: Administration of Information Agencies	3		
Elective	3		
Term credit total:	12		

Term 2:Spring 1

Course Number & Title	Credits	New	Co/Prerequisites
IST 603: Information Processing	3		
IST 605: Information Sources and Services	3		
IST 608: Research Methods	3		
Elective	3		
Term credit total:	12		

Term 3: Fall 2

Course Number & Title	Credits	New	Co/Prerequisites
IST 668: Internship	3		
Elective	3		
Elective	3		
Elective	3		
Term credit total:	12		

Term 4:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 5:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 6:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 7:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 8:

Course Number & Title	Credits	New	Co/Prerequisites)
Term credit total:			

Program Total:	Total Credits: 36	Identify the required comprehensive, culminating element(s), such as a thesis or examination, including course number(s), if applicable: IST 668: Internship

New: X if new course **Prerequisite(s)**: list prerequisite(s) for the listed courses

SUNY Graduate Program Schedule ***OPTION: You can insert an Excel version of this schedule AFTER this line, and delete the rest of this page.)***

Program/Track Title and Award: Information Science, **Information Management & Technology, M.S. (no change from March 2018 proposal)**

q) Indicate **academic calendar** type: [X] Semester [ ] Quarter [ ] Trimester [ ] Other (describe):

r) **Label each term in sequence,** consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)

s) Use the table to show **how a typical student may progress through the program;** copy/expand the table as needed.

t) Complete the last row to show program totals and comprehensive, culminating elements. **Complete all columns that apply to a course.**

Term 1:Fall 1

Course Number & Title	Credits	New	Co/Prerequisites
IST 601: The Information Environment	3		
IST 602: Information and Knowledge Organization	3		
IST 614: Administration of Information Agencies	3		
IST 611: Information Systems	3		
Term credit total:	12		

Term 2:Spring 1

Course Number & Title	Credits	New	Co/Prerequisites
IST 565: Human Information Behavior	3		
IST 560: Information and Public Policy	3		
IST 608: Research Methods	3		
Elective	3		
Term credit total:	12		

Term 3: Fall 2

Course Number & Title	Credits	New	Co/Prerequisites
IST 533: Information Storage and Retrieval	3		
IST 668: Internship	3		
Elective	3		
Elective	3		
Term credit total:	12		

Term 4:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 5:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 6:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 7:

Course Number & Title	Credits	New	Co/Prerequisites
Term credit total:			

Term 8:

Course Number & Title	Credits	New	Co/Prerequisites)
Term credit total:			

Program Total:	Total Credits: 36	Identify the required comprehensive, culminating element(s), such as a thesis or examination, including course number(s), if applicable: IST 668: Internship

New: X if new course **Prerequisite(s):** list prerequisite(s) for the listed courses

Section 4. SUNY Faculty Table

a) If applicable, provide information on faculty members who will be teaching new or significantly revised courses in the program. Expand the table as needed.

b) Append at the end of this document position descriptions or announcements for each to-be-hired faculty member

(a) Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.)	(b) % of Time Dedicated to This Program	(c) Program Courses Which May Be Taught (Number and Title)	(d) Highest and Other Applicable Earned Degrees (include College or University)	(e) Discipline(s) of Highest and Other Applicable Earned Degrees	(f) Additional Qualifications: List related certifications and licenses and professional experience in field.
PART 1. Full-Time Faculty					
Michael Young, Director, Intelligence Analysis	50	EHC 557, EHC 628, IST 529, IST 667	PhD, The Ohio State University	Political Science	15 years professional intelligence experience.
George Berg, Director, Data Analytics	50	INF 624, INF 625, INF 626, INF 627	PhD, Northwestern	Computer Science	
Eric Stern	13	EHC 628	PhD, Stockholm University	Political Science	
Brandon Behlendorf	13	EHC 629	PhD, University of Maryland	Criminology and Criminal Justice	
Brian Nussbaum	13	EHC 629, IST 667	PhD, University at Albany	Political Science	7 years professional intelligence experience
James Steiner	13	EHC 557, IST 667	PhD, Georgetown University	Economics	33 years professional intelligence experience.
Part 2. Part-Time Faculty					
Part 3. To-Be-Hired Faculty (List as TBH1, TBH2, etc., and provide expected hiring date instead of name.)					

(a)	(b)	(c)	(d)	(e)	(f)
Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.)	**% of Time Dedicated to This Program**	**Program Courses Which May Be Taught (Number and Title)**	**Highest and Other Applicable Earned Degrees (include College or University)**	**Discipline(s) of Highest and Other Applicable Earned Degrees**	**Additional Qualifications: List related certifications and licenses and professional experience in field.**
TBH-1	50%	EHC 628, EHC 629	PhD	Political Science, International Relations, Intelligence Studies	
TBH-2	50%	INF 624, INF 625, INF 626, INF 627	PhD	Data science, Informatics, Information Science, Math, Computer Science	

THE COLLEGE OF EMERGENCY PREPAREDNESS, HOMELAND SECURITY AND CYBERSECURITY

UNIVERSITY AT ALBANY State University of New York

EHC 628: Leaders and Individual Assessment (3 cr)

Day/Time: Tuesday and Thursday 8:45 – 10:05 AM
Location: HU 109
Instructor: Dr. Michael D. Young
Contact: myoung4@albany.edu

Office Location and Hours:
Tuesday and Thursday HU B-16 10:15 – 11:15 AM
342 Draper Hall by appointment

Course Description:
This course provides a theoretical overview of approaches to the remote assessment of individuals, including psychobiography, motivations, leadership trait analysis, operational code, cognitive mapping, and integrative complexity, along with contextual influences on assessments and individual behavior, and methodological considerations. The major course project is an in-depth assessment of an individual using one or more of the approaches studied.

Student Learning Objectives:
By end of course, students should be able to do the following (not an exhaustive list):

- Evaluate articles and lead discussions on remote assessment.
- Describe and contrast at least four methods of remote assessment for individuals and leaders.
- Identify and evaluate at least two methodological challenges for remote assessment.
- Describe and provide examples of behavioral indicators along with potential implications.
- Construct and present a leader profile using at least one of the methods discussed in the course
- Submit documents and interpret results from profilerplus.org for at least one coding scheme used for remote assessment.

Prerequisites: None.

Grading:
This course is A-E graded and the grades are determined based on six graded assignments:

Discussion leader 20% (2 at 10%)

Background study of political leader. 20%
A psychobiographical analysis of a selected leader, including an evaluation of the strengths and weakness of the psychobiographical approach.

Behavioral indicator study. 10%
An analysis of common behaviors exhibited by your leader in the last 2-3 years and the implications of those behaviors, along with an evaluation of the strengths and weaknesses of behavioral indicators.

Leader Profile Peer Review Draft. 10%

Leader Profile 40%
Using one or more of the assessment techniques covered in the class and/or readings provide an in-depth overview of your leader. This assessment should include the behaviors we might expect to see from this leader in situations likely to arise in the 6-12 months, along with expected reactions to specific proposed policy initiatives/alternatives by the US or US allies. Include an evaluation of the strengths and weaknesses of your selected approaches.

Grade Determination:

Although philosophically I would prefer not to "grade", grades for this course are based on the total number of points a student, compleing all assignments successfully, would earn. Each assignment will carry a fixed number of points. At the end of the semester your final grade will be based upon the number of points you've attained divided by the maximum number of points that could possibly be attained. For example, if the maximum amount of possible points possible is 125 and you have accrued 100 points your final grade will be 100 divided by 125 or 80% (a B-); if you accrued 110 out of 125 it will be 88 (or a B+), etc. The University at Albany uses a letter-based grading system and utilizes pluses and minuses (+/-) to allow for variaions of the assigned grades. Acceptable grades are **A, A-, B+, B, B-, C+, C, C-, D+, D, D-, E ("E" being the designation for failure). The University does not use grades of A+ or F.**

- 95-100=A
- 94-90 = A-
- 86-89 = B+
- 83-85 = B
- 82-80 = B-
- 76-79 = C+
- 73-75 = C
- 72-70 = C-
- 66-69 = D+
- 63-65 = D
- 62-60 = D-
- 59 and below = E (Designation for failure or E)

Required Readings:

Jerrold Post (ed.), (2003), *The Psychological Assessment of Political Leaders*. University of Michigan Press.

Hermann, Margaret G., Thomas Preston, Baghat Korany, and Timothy M. Shaw. (2001). "Who LeadsMatters: The Effects of Powerful Individuals." *Leaders, Groups, and Coalitions: Understanding thePeople and Processes in Foreign Policymaking*, pp.83-131.

Khong, Yuen Foong (1992). *Analogies at War: Korea, Munich, Dien Bien Phu, and the Vietnam Decisions of 1965*. Princeton, N.J.: Princeton University Press.

Hudson, Valerie M. (2005). "Foreign Policy Analysis: Actor-Specific Theory and the Ground of International Relations." Foreign Policy Analysis, Vol. 1, pp.1-30.

McClelland, David C. (1987). "Is Personality Consistent?" Chapter 9, Motives, Personality, and Society.

M. Schafer and S.G. Walker (eds.) (2006). *Beliefs and Leadership in World Politics: Methods and Applications of Operational Code Analysis*. Palgrave.

Additional reading will be provided via Blackbaord.

Software Packages:

Profilerplus.org

Lecture and Reading Schedule:

Dates	Lecture Title	Readings	Notes
Week 1	Who Leads Matters!	Hermann, et al:"Who Leads Matters: The Effects of Powerful Individuals."	Leader selected.
Week 2	The Evidence: Words and Deeds.	Schafer, Mark and Young, Michael D. (1998). "Method in Our Madness: Ways of Assessing Cognition." *Mershon International Studies Review*.	
Week 3	Psychobiography	Post: "Psychoanalytic Assessments of Character and Performance in Presidents and Candidates: Some Observations on Theory and Method"; "William Jefferson Clinton's Psychology"; "Saddam Hussein of Iraq: A Political Psychology Profile". Runyan "Why Did Van Gogh Cut Off His Ear?: The Problem of Alternative Explanations in Psychobiography."	

Dates	Lecture Title	Readings	Notes
Week 4	Motivations	Post: "Measuring the Motives of Political Actors at a Distance." Winter: "Things I've Learned About Personality From Studying Political Leaders At a Distance." Winter: "Leader Appeal, Leader Performance, and the Motive Profiles of Leaders and Followers: A Study of American Presidents and Elections." Young et al: "Motives and Crisis Behavior".	Background study due
Week 5	Leadership Trait Analysis	Kaarbo, Juliet and Hermann, Margaret G. (1998). "Leadership Styles of Prime Ministers: How Individual Differences Affect the Foreign Policy Process." Dyson, Stephen Benedict. (2006). "Personality and Foreign Policy: Tony Blair's Iraq Decisions," Kille, Kent J. (2006). "The Secretary-Generalship: The Individual Behind the Office,"; "A Secretary-General's Avenues for Influence," Mitchell, David (2007). "Determining Indian Foreign Policy: An Examination of Prime Ministerial Leadership Styles."	
Week 6	Operational Code	George, Alexander L. (1969). "The Operational Code: A Neglected Approach to the Study of Leadership and Decision-making." Schafer & Walker: *Beliefs and Leadership in World Politics: Methods and Applications of Operational Code Analysis.*	
Week 7	Cognitive Mapping	Axelrod, (1976) "The Cognitive Mapping Approach to Decision Making" Young, (1996) "Cognitive mapping meets semantic networks" Van Esch and De Jong (2017) National culture trumps EU socialization: the European central bankers' views of the euro crisis	
Week 8	Using ProfilerPlus.org	In-class account requests, logon and exercises on profilerplus.org	Behavioral indicator study due
Week 9	Integrative Complexity	Post: "Assessing Integrative Complexity at a Distance: Archival Analyses of Thinking and Decision Making,"; "Assessing Political Leaders in Theory and in Practice," Suedfeld & Tetlock "Integrative Complexity at Forty: Steps Toward Resolving the Scoring Dilemma" Suedfeld & Rank: "Revolutionary Leaders: Long-term Success as a Function of Changes in Conceptual Complexity." Foster & Keller: "Leaders' Cognitive Complexity, Distrust, and the Diversionary Use of Force."	

Dates	Lecture Title	Readings	Notes
Week 10	Methodological Issues	Conway, et. al.:"Automated Integrative Complexity." Tetlock, et. al.: "Integrative Complexity Coding Raises Integratively Complex Issues." Young & Hermann: "Increased Complexity Has Its Benefits." Houck, et. al.: "Automated Integrative Complexity: Current Challenges and Future Directions." Winter, David G. *Workbook for Determining Motive Scores of Leaders*. (Coding Manual)	
Week 11	Political Culture, Generation Effects, and Birth Order	Holsti, and Rosenau (1980). "Does Where You Stand Depend on When You Were Born?: The Impact of Generation on Post-Vietnam Foreign Policy Beliefs." Stewart, L.H. (1977). "Birth Order and Political Leadership." Hermann, (1979). "Who Becomes a Political Leader?: Some Societal and Regime Influences on Selection of a Head of State." Inglehart, (1981). "Post-Materialism in an Environment of Insecurity." Central Intelligence Agency. (2003). *The Next Generation of World Leaders: Emerging Traits and Tendencies*. (all) Post, (2005). "When Hatred is Bred in the Bone: Psycho-cultural Foundations of Contemporary Terrorism." Hudson, (2007). "Culture and National Identity," Yan and Hunt (2005). "A Cross Cultural Perspective on Perceived Leadership Ayman, Roya and Karen Korabik (2010). "Leadership: Why Gender and Culture Matter." Amodio, et. al. (2007): "Neurocognitive Correlates of Liberalism and Conservatism,"	
Week 12	Crises, Stress, and Health	Hermann (1979) "Indicators of stress in policymakers during foreign policy crises" Salas & Martin (2017) "Decision-Making Under Stress: Emerging Themes and Applications" Clemente, (2006) "CIA's Medical and Psychological Analysis Center (MPAC) and the Health of Foreign Leaders"	
Week 13	Problem Representation, Counterfactuals, and the Use of Analogy in Decision Making	Khong, Yuen Foong (1992). *Analogies at War: Korea, Munich, Dien Bien Phu, and the Vietnam Decisions of 1965*. (all) Brown et al (2014) "Making Sense of Sensemaking in *Organization Studies*"	Leader Profile draft due to peer reviewer
Week 14	Advancing the discipline (art?) of leadership analysis	Prospective discussions based on semester readings and profile project.	Leader Profile Peer Review
Week 15	Profile Presentations		Leader Profile due.
Final Exam	Profile Presentations		

Policies:

Attendance and Participation Policy: Regular attendance is recommended and generally related to the grade attained. However, as the students are paying for the course I assume they will decided how best to receive value for their dollars. I expect students to have read and thought about the material or tasks assigned for that week. If language or some other barrier inhibits you from participating actively, you should meet with the instructor during the first two weeks of class to devise a solution. Attendance is not participation.

Missed Exams and Assignments:
Students missing an exam or assignment without prior approval of the instructor (or documentation of an emergency medical situation) will receive a "0" for that exam or assignment unless they have a valid and documented excuse. UAlbany's medical excuse policy can be reviewed at: http://www.albany.edu/health_center/medicalexcuse.shtml.

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THE COLLEGE OF EMERGENCY PREPAREDNESS, HOMELAND SECURITY AND CYBERSECURITY
UNIVERSITY AT ALBANY State University of New York

EHC 629: Transnational Organized Crime (3 cr.)

Wednesdays, 2:45pm – 5:35pm
Spring 2019
(1 x week for 2 hrs, 50 minutes)

Instructor:
Brandon Behlendorf
University at Albany
E-mail: bbehlendorf@albany.edu
Phone: (518) 442-5782
Office Hours: Wednesdays, 1:30pm-2:30pm or by appointment

Course Description Structure and Requirements:
This class introduces the major ideas and problems associated with the study of international and transnational crime in the context of global politics. It will examine transnational criminal activities, illicit markets, those individuals and organizations involved in such crime, and how governments attempt to respond to and cope with such criminality.

In order to understand the various phenomena that constitute transnational crime, there are both substantive and theoretical insights that are required. This course will pursue substantive knowledge of various illicit goods and industries, as well as the actors and organizations that take part in such "black market" trade. Besides examining the crimes themselves, and those engaged in them, this course will use certain theoretical perspectives to examine the dynamics that underpin and enable such activities, including concepts from organizational studies (like hierarchies and networks), the analysis of business and political economy ("the firm" and markets), and numerous concepts from political science (the salience of borders, sovereignty, globalization, and others).

This course will also look closely at efforts by government and law enforcement agencies to respond to crime that does not respect traditional jurisdictional or national borders, often using some of the same theoretical insights that may help to illuminate the criminal side of this phenomenon. In addition it will examine how criminal activities impact states and governments negatively, including through funding insurgencies and instability, drawing states into conflicts, and weakening state control.

It is increasingly hard to understand global politics without understanding the dark underside of globalization. This course will offer substantive insights and theoretical insights to help students examine the "other" global economy.

Student Learning Objectives:
By end of course, students should be able to (not an exhaustive list):

- Understand the breadth and dynamics of transnational crime
- Understand the challenges such crime poses to governments and law enforcement worldwide, and some of the ways in which they respond
- Use theoretical perspectives from several different disciplines to understand transnational crime in the broader context of global politics
- Engage the phenomena of transnational crime both as a policy issue, and as an area of scholarship

Prerequisites: Completion of at least 24 MSIS credits, including program core courses.

Grading:
The grading for this course is fairly straightforward.

Participation is a key facet of your grade, and counts for 20% of your grade. This includes three components: Attendance, Preparation (reading) **and Active Participation** in class discussion. This class depends heavily on student discussion, and if there is evidence that students are arriving unprepared to engage, the instructor may institute reading quizzes to establish who is prepared.

Two smaller papers (of 2-3 pages) counts for 20% of your grade each. These smaller papers will require you to actively engage readings and utilize themes and theories discussed in class. There will be 3 topics offered, and every student must select two of these papers to write. The assignments will be distributed 2 weeks before their due date.

The final 40% of your grade is based on your term paper proposal and term paper - a 6-8 page analytical memo - details of which will be provided later in the semester. 10% of that will be based on a 1 page paper proposal

20%	Participation**
20%	Short Paper 1
20%	Short Paper 2
10%	Final Paper Proposal
30%	Final Paper – Analytical Memo

** The instructor reserves the right to institute reading quizzes at any time if it appears reading is not being completed.

Grade Determination:

Although philosophically I would prefer not to "grade", grades for this course are based on the total number of points a student, completing all assignments successfully, would earn. Each assignment will carry a fixed number of points. At the end of the semester your final grade will be based upon the number of points you've attained divided by the maximum number of points that could possibly be attained. For example, if the maximum amount of possible points possible is 125 and you have accrued 100 points your final grade will be 100 divided by 125 or 80% (a B-); if you accrued 110 out of 125 it will be 88 (or a B+), etc. The University at Albany uses a letter-based grading system and utilizes pluses and minuses (+/-) to allow for variations of the assigned grades.

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- 83-85 = B
- 82-80 = B-
- 76-79 = C+
- 73-75 = C
- 72-70 = C-
- 66-69 = D+
- 63-65 = D
- 62-60 = D-
- 59 and below = E (Designation for failure or E)

Description of Course Requirements:
Students will be expected to prepare for class discussions by doing **all readings** thoroughly and **in advance**. Readings should not only be completed, but also it is expected that students come to class and **discuss** the readings. THERE WILL BE A LOT OF READING FOR THIS CLASS. This will not be a traditional lecture class, rather student engagement will be expected and required. As such, participation counts very heavily in this course.

Attendance is required for this class. While I understand that we all have numerous other activities and responsibilities, because of the importance of engagement and discussion for this class, you simply can't succeed without being present. ***All students will be allowed 3 unexcused absences during the course of the semester***. Absences beyond these three will negatively affect your participation grade. Absences for which there is a legitimate medical or other university-approved purpose (sports, campus service, etc) will not result in any penalization – as long as they are brought to the instructor's attention before the absence.

Required Readings:

Naim, Moises. (2005) Illicit: How Smugglers, Traffickers and Copycats are Hijacking the Global Economy. Doubleday Books.

Hoffman, Bruce. (1999/2006) Inside Terrorism. Columbia University Press. **(2006 version is preferable)

Kenney, Michael. From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies and Competitive Adaptation.

Schedule:

Dates	Lecture Title	Readings	Notes
Week 1.1	Introduction/ Housekeeping/ Why study international crime and LE in Global Politics?		
Week 1.2	Transnational Crime – History and Models of Crime	Peter Andreas – Gangster's Paradise: The Untold History of the United States and International Crime. http://www.watsoninstitute.org/pub/06_Andreas.pdf United Nations Office on Drugs and Crime – The Globalization of Crime: A Transnational Organized Crime Threat Assessment (2010 – Chapters 1,2,9,11) https://www.unodc.org/documents/data-and analysis/tocta/TOCTA_Report_2010_low_res.pdf	
Week 2.1	Transnational Crime – Model 1: The Firm or Family	Europol – Threat Assessment: Italian Organized Crime (2013) https://www.europol.europa.eu/sites/default/files/publications/italian_organised_crime_threat_assessment_0.pdf Steven Strang – Project SLEIPNIR: An Analytical Technique for Operational Priority Setting https://www.e-education.psu.edu/drupal6/files/sgam/Project%20SLEIPNIR%20An%20Analytical%20Technique%20for%20Operational%20Priority%20Setting.pdf	
Week 2.2	Transnational Crime – Model 2: The Market	Letizia Paoli – The Paradoxes of Organized Crime. http://www.cerium.ca/IMG/pdf/Paoli_2002_The_paradoxes_of_organized_crime.pdf Curtis and Wendel. Toward the Development of a Typology of Illegal Drug Markets. (pg 8-23) http://www.popcenter.org/library/crimeprevention/volume_11/06-Curtis.pdf	
Week 3.1	Transnational Crime – Model 3: The Proto-State	Skaperdas, S. 2001. The Political Economy of Organized Crime: Providing Protection When the State Does Not. Economics of Governance. http://www.socsci.uci.edu/~sskaperd/SkaperdasEoG01.pdf Goga and Goradema - Cape Town's Protection Rackets: A Study of Violence and Control. (2014) http://www.issafrica.org/uploads/Paper259_IDRC.pdf	

Dates	Lecture Title	Readings	Notes
Week 3.2	Transnational Crime – Model 4: Networks	Phil Williams - Transnational Criminal Networks (in Networks and Netwars) http://www.rand.org/content/dam/rand/pubs/monograph_reports/MR1382/MR1382.ch3.pdf CRS - Organized Crime: An Evolving Challenge for US Law Enforcement. http://fas.org/sgp/crs/misc/R41547.pdf Andrew Papachristos – Gang World (Foreign Policy) http://www.foreignpolicy.com/articles/2005/03/01/gang_world	
Week 4.1	Drugs – Networks and Markets	Kenney Ch. 1 – The Architecture of Drug Trafficking Kenney Ch. 2 – How Narcos Learn UN Office on Drugs and Crime – Estimating the Value of Illicit Drug Markets (2005) https://www.unodc.org/pdf/WDR_2005/volume_1_chap2.pdf	
Week 4.2	Drugs – Impacts: Crime and Conflict	Office of the Attorney General of California – Gangs Beyond Borders: California and the Fight Against Transnational Organized Crime (2014) https://oag.ca.gov/sites/all/files/agweb/pdfs/toc/report_2014.pdf Hal Brands – Mexico's Narco-Insurgency and US Counterdrug Policy http://www.strategicstudiesinstitute.army.mil/pdffiles/pub918.pdf	
Week 5.1	Counter-Narcotics Enforcement	Kenney Ch. 3 – How Narcs Learn Jamie Bartlett (Ars Technica) Darknet Drug Services Kept Alive by Great Customer Service http://arstechnica.com/tech-policy/2014/08/dark-net-drug-markets-kept-alive-by-great-customer-service/	
Week 5.2	The Arms Trade - Small Arms	Naim Chapter 3 Rachel Stohl. Fighting the Illicit Trafficking of Small Arms (SAIS Review) http://faculty.maxwell.syr.edu/rdenever/IntlSecurity2008_docs/Stohl_TraffickingSmallArms.pdf	PAPER 1 DUE

Dates	Lecture Title	Reading	Notes
Week 6.1	The Arms Trade - Small Arms (US Borders)	KONRAD/University of Saint Diego - The Way of the Gun: Estimating Firearms Traffic Across the US-Mexico Border (2013) http://catcher.sandiego.edu/items/peacestudies/way_of_the_gun.pdf James Verini – Arming the Drug Wars http://upstart.bizjournals.com/news-markets/international-news/portfolio/2008/06/16/Examining-the-US-Mexico-Gun-Trade.html?page=all	
Week 6.2	The Arms Trade - the WMD Supermarket	William Langewiesche – The Wrath of Khan (Atlantic) http://www.theatlantic.com/magazine/archive/2005/11/the-wrath-of-khan/304333/ William Langewiesche – The Point of No Return (Atlantic) http://www.theatlantic.com/magazine/archive/2006/01/the-point-of-no-return/304500/	
Week 7.1	Human Smuggling	Naim Chapter 5 Peter Landesman – The Girls Next Door (NY Times) http://www.nytimes.com/2004/01/25/magazine/25SEXTRAFFIC.html	
Week 7.2	Resource Crime – Diamonds and Minerals	CRS - Diamonds and Conflict: Background, Policy and Legislation (2003) http://royce.house.gov/uploadedfiles/rl30751.pdf CRS - Conflict Minerals in Central Africa: US and International Responses (2012) http://fas.org/sgp/crs/row/R42618.pdf	
Week 8.1	Illicit Licit Goods - Case Study: Cigarettes	Shelley, L. Melzer, S. The Nexus of Organized Crime and Terrorism: Two Cases in Cigarette Smuggling. International Journal of Comparative and Applied Criminal Justice. http://www.traccc.gmu.edu/pdfs/publications/illicit_trade_publications/Shelley_Melzer.pdf House Committee on Homeland Security – Tobacco and Terror: How cigarette Smuggling is Funding Our Enemies Abroad http://www.foxnews.com/projects/pdf/Cigarette_smuggling_042408.pdf	PAPER 2 DUE
Week 8.2	Miscellaneous Illicit Goods	Naim Chapter 8 Alice Blondel – The Logs of War (Le Monde Diplomatique) http://mondediplo.com/2004/01/15timber Bryan Christy - The Kingpin (National Geographic) http://ngm.nationalgeographic.com/print/2010/01/asian-wildlife/christy-text	

Dates	Lecture Title	Readings	Notes
Week 9.1	Proposal consultation		
Week 9.2	Financial Crime - Money Laundering	Naim Chapter 7 Phil Williams. Crime, Illicit Markets and Money Laundering (Carnegie) http://carnegieendowment.org/pdf/files/mgi-ch3.pdf	FINAL PAPER PROPOSAL DUE
Week 10.1	Intellectual Property Crime	Naim Chapter 6 IP Crime Group (UK) – IP Crime Annual Report 2012/2013 (Chapters 1 and 2) http://www.ipo.gov.uk/ipcreport12.pdf	
Week 10.2	Cyber Crime – Varieties of Cyber Crime	CRS – Botnets, Cybercrime and Cyberterrorism: Vulnerabilities and Policy Issues for Congress (2008) http://fas.org/sgp/crs/terror/RL32114.pdf Price Waterhouse Coopers – US Cybercrime: Rising Risks, Reduced Readiness (2014) http://www.pwc.com/en_US/us/increasing-it-effectiveness/publications/assets/2014-us-state-of-cybercrime.pdf McAfee - Net Losses: Estimating the Global Cost of Cyber Crime (2014) http://www.mcafee.com/ca/resources/reports/rp-economic-impact-cybercrime2.pdf	PAPER 3 DUE
Week 11.1	Cyber Crime – Individuals, Organizations, States	Trend Micro – Russian Underground 101 (2012) http://www.trendmicro.com/cloud-content/us/pdfs/security-intelligence/white-papers/wp-russian-underground-101.pdf Mandiant – APT 1: Exposing one of China's Cyber Espionage Units (2013) http://intelreport.mandiant.com/Mandiant_APT1_Report.pdf	
Week 11.2	Cyber Crime – Responding to Cyber Crime	Michael Riley. How Russian Hackers Stole the Nasdaq (Bloomberg Businessweek) http://www.businessweek.com/articles/2014-07-17/how-russian-hackers-stole-the-nasdaq Stewart Baker. The Attribution Revolution: Raising the Costs for Hackers and Their Customers (2013) http://www.judiciary.senate.gov/imo/media/doc/5-8-13BakerTestimony.pdf	
Week 12.1	Terrorism - What is it?	Hoffman Chapter 1-2	
Week 12.2	Terrorism - Who and Why	Hoffman Chapter 3-5	

Dates	Lecture Title	Readings	Notes
Week 13.1	Counter Terrorism	David Kilcullen – Countering Global Insurgency. http://smallwarsjournal.com/documents/kilcullen.pdf Jim Steiner - Needed: State Level, Integrated Intelligence Enterprises (CIA) https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/csi-studies/studies/vol.-53-no.-3/pdfs/U-%20Steiner-NYStateHomelandSecurity-web.pdf	
Week 13.2	Political Corruption	Moises Naim – The Corruption Eruption (1995) http://carnegieendowment.org/1995/06/01/corruption-eruption US Dept of Justice – The Threat of Russian Organized Crime (2001) https://www.ncjrs.gov/pdffiles1/nij/187085.pdf	
Week 14.1	Weak and Failed States	OECD – Transnational Organised Crime and Fragile States (2012) http://www.crime-prevention-intl.org/fileadmin/user_upload/Publications/Transnational_organised_crime_and_fragile_states_2012.pdf Gretchen Peters – How Opium Profits the Taliban (USIP) http://www.usip.org/sites/default/files/resources/taliban_opium_1.pdf	
Week 14.2	Grey Zones 1	Makarenko, T. (2004). The crime-terror continuum: tracing the interplay between transnational organised crime and terrorism. Global crime, 6(1), 129-145. Kupatadze, A. (2007). Radiological smuggling and uncontrolled territories: the case of Georgia. *Global Crime*, *8*(1), 40-57.	
Week 15.1	Grey Zones 2	Oehme III, C. G. (2008). Terrorists, Insurgents, and Criminals—Growing Nexus?. *Studies in Conflict & Terrorism*, *31*(1), 80-93. Cornell, S. E. (2009). The interaction of drug smuggling, human trafficking and terrorism. *Human trafficking and human security*.	FINAL PAPER DUE
Week 15.2	Concluding Thoughts and Wrap Up		

Policies:

Attendance and Participation Policy: Regular attendance and participation is required. If students accrue more than five unexcused absences they will automatically fail the course. If language or some other barrier inhibits you from participating actively, you should meet with the instructor during the first two weeks of class to devise a solution. Attendance is not participation.

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Grade Complaints: Students or teams that feel their exams or assignments have been graded incorrectly should follow a three-step procedure. First, the student or team should carefully read the exam or assignment and identify the precise problem with the grading. Second, the student or team must send a written appeal explaining why their answer was appropriate to the instructor. Third, the instructor will meet with the student or team to discuss the appeal and resolve the conflict. If this process is not satisfactory, students may file a grievance with the CEHC Grievance Committee.

INF 624: *Predictive Modeling* (3 cr) Fall 2018

I tell my students, 'When you get these jobs that you have been so brilliantly trained for, just remember that your real job is that if you are free, you need to free somebody else. If you have some power, then your job is to empower somebody else. This is not just a grab bag candy game.' – Toni Morrison

Course Instructor

Instructor: George Berg
Email: gberg@albany.edu
- Office Hours:
  Tuesdays and Thursdays: 2:50 – 3:50 in the Campus Center. Ground floor near the rear grand staircase.
- Wednesdays: 2:50 – 3:50 in Draper XXX.

Other Contact Info:
- Office: UAB 413
- Phone: 1-518-437-4937
- Twitter: @GBerg_UAlbany
- FB: @GeorgeBergUAlbanyCS

Course Description

INF 624 *Predictive Modeling* (3)
Fundamental concepts and techniques to discover patterns in data, identify variables with predictive power, and to develop predictive models. Topics include statistical, data mining and machine learning concepts and methods: data selection, representation, cleaning and preprocessing; algorithms such as classification, clustering and association rules; advanced techniques such as deep learning, and text and web mining. Best practices on the selection of methods and tools to build predictive models.
Prerequisite(s): IST 506.

Expected Student Outcomes

This is a comprehensive graduate course in concepts and applications of data analytics.
By the end of this course, students will

- Understand the statistical, machine learning, and data mining concepts involved in examining data to discern meaningful patterns, and to create predictive models.
- Use various computer packages to implement the above concepts and use them to analyze data.

Class Meetings

Lecture

The lecture meets twice week: Tuesdays and Thursdays, 1:15 – 2:35 PM in Husted 225.

Required Text

Thomas W. Miller, *Modeling Techniques in Predictive Analysis*, Pearson FT Press, 2014. ISBN-13 978-0133892026.

Recommended Text

There is no recommended text for this class.

Additional Readings

There will be readings that will be available to the students online or via Blackboard. When these readings are assigned, the class will be told where they can be found.

TEAM-BASED LEARNING (TBL)

This course uses Team-based Learning (TBL). This section describes how we will be using TBL in this class.

AN ABSOLUTELY CRUCIAL POINT: The course is divided into learning modules. You ***must*** do the readings for each module ***before*** the unit's start. This is because each unit starts with a Readiness Assessment Test (RAT). Readings must be done before the RAT tests for the module (dates given in the syllabus below). The RAT tests are based solely upon the readings, and not on lecture or other in-class preparation beforehand.

Teams

This course will be using a Team-Based-Learning (TBL) format (http://www.teambasedlearning.org). This instructional method aims to help develop your learning skills and will be done in a way that will hold teams accountable for using course content to make decisions that will be reported publicly and subject to cross-team discussion/critique. You will be assigned to a team with approximately 6 members. Teams will be formed during the first week of the term. Teams will work together for most in-class activities throughout the semester.

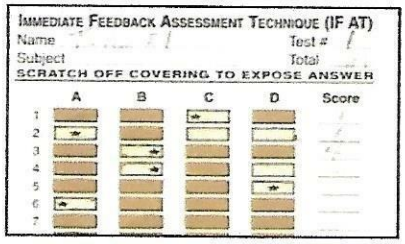
Your grade will be influenced by team performance on team-based assignments. While in many courses, group work can be structured unfairly, such that some students end up doing all the work while everyone shares in the credit, two factors will prevent that from happening in this class. First, nearly all graded team work will be preceded by one or more preparatory assignments, for which each individual will be accountable (e.g. the RATs), thus ensuring that individual team members are each prepared to contribute to the team effort. Second, each individual's contribution to team work will be assessed by his or her teammates several times during the semester.

Phase 1 – Preparation: You will complete **specified readings** to begin each module

Phase 2 – Readiness Assurance Test: At the first class meeting of each module, you will be given a **Readiness Assurance Test** (RAT). The RAT test (10 multiple-choice questions) measures your comprehension of the assigned readings, and helps you learn the material needed to begin problem solving in phase 3. The purpose of phase 2 is to ensure that you and your teammates have sufficient foundational knowledge to begin learning how to apply and use the course concepts in phase 3. **RATs are closed book and based on the assigned readings.**

- **Individual RAT (iRAT)** – You individually complete a 10 question multiple-choice test based on the readings.

- **Group/Team RAT (gRAT)** - Following the iRAT, the same multiple-choice test is re-taken with your team. These tests use a "scratch and win" type answer cards known as an IF-AT. You negotiate with your teammates, and then scratch off the opaque coating hoping to reveal a star that indicates a correct answer. *Your team is awarded **10** points if you uncover the correct answer on the **first** scratch, **6** points for **second** scratch, and **2** point for **third** scratch.* No points are awarded for fourth or fifth.



- **Appeals Process** - Once your team has completed the team test, your team has the opportunity to complete an appeal. The purpose of the appeal process is to allow your team to identify questions where you disagree with the question key or question wording or ambiguous information in the readings. Instructors will review the appeals outside of class time and report the outcome of your team appeal at the next class meeting. Only teams are allowed to appeal questions (no individual appeals).

- **Feedback and Mini-lecture** - Following the RATs and Appeal Process, the instructor may provide a short clarifying lecture on any difficult or troublesome concepts.

Phase 3 - In-Class Activities: You and your team use the foundational knowledge, acquired in the first two phases, to make decisions that will be reported publicly and subject to cross-team discussion/critique. We will use a variety of methods to have you report your team's decision at the end of each activity. The presentation of your team responses is critical to the team grade. You should expect each team member to present individually and for the entire team to present with smooth transitions.

Grading

Category	Assignment Type	Weight Within Category	Category Weight in the Course
Individual Grades			(45% – 70%)*
	iRAT Tests	25%	
	Individual Assignments	35%	
	Midterm Exam	15%	
	Final Exam	25%	
Team Grades			(20% – 45%)*
	gRAT Tests	50%	
	Team Exercises	50%	
Class Participation and Peer Evaluation			(10% – 25%)*
	Peer Evaluation	75%	
	Class Participation (Instructor Determined)	25%	

Total			**100%**

* The class will determine the grade weights on 08/25/2018. Student teams will negotiate the exact proportions of individual grades, team grades, and peer evaluation for the course, with in the ranges given above. For example, they may agree on individual grades at 50%, team grades at 30%, and peer evaluation at 20% of a students' course grade. The percentages *must* total to 100%, of course.

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Although philosophically I would prefer not to "grade", grades for this course are based on the total number of points a student, completing all assignments successfully, would earn. Each assignment will carry a fixed number of points. At the end of the semester your final grade will be based upon the number of points you've attained divided by the maximum number of points that could possibly be attained. For example, if the maximum amount of possible points possible is 125 and you have accrued 100 points your final grade will be 100 divided by 125 or 80% (a B-); if you accrued 110 out of 125 it will be 88 (or a B+), etc. The University at Albany uses a letter-based grading system and utilizes pluses and minuses (+/-) to allow for variations of the assigned grades. Acceptable grades are **A, A-, B+, B, B-, C+, C, C-, D+, D, D-, E ("E" being the designation for failure). The University does not use grades of A+ or F.**

- 95-100=A
- 94-90 = A-
- 86-89 = B+
- 83-85 = B
- 82-80 = B-
- 76-79 = C+
- 73-75 = C
- 72-70 = C-
- 66-69 = D+
- 63-65 = D
- 62-60 = D-
- 59 and below = E (Designation for failure or E)

Policies

Attendance: Your in-class performance is key to your success in this course. Attendance, itself, is not explicitly graded (but it does factor into class participation). Instead, graded in-class activities and assignments constitute an important part of the course grade. Keeping a passing average on these is not possible without consistent attendance. Missing class means the student earns an automatic zero for all individual and team activities or assignments missed. No make-up opportunities will be available.

Tardiness: Missing an assignment or activity that happens before a student arrives or after a student leaves also earns a zero. No make-up opportunities will be available. Tardiness also factors into class participation.

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Make-up Policy: There are generally no make-up opportunities for missed assignments except in extenuating circumstances. Instead of asking to make up missed work, please use the course 'safety valves' described below.

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Safety Valve 2: If you become seriously ill during the semester, or become derailed by unforeseeable life problems, and have to miss so many assignments that it will ruin your grade, schedule a meeting with the instructor in order to make arrangements for you to drop the course to save your grade point average. Don't wait until it's too late to do this when you get in trouble.

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In-class assignments may be done only on the days they are scheduled.

Withdrawal from the Course: The **drop date** for the Fall 2018 semester is **Monday, November 9, 2018 for graduate students in full semester courses.** That is the last date you can drop a course and receive a 'W'. It is your responsibility to take action by this date if you wish to drop the course. In particular, grades of "incomplete" will not be awarded to students because they missed the drop deadline. Given that dropping a course can have financial aid implications, please see your advisor or the Financial Aid office before dropping a course so you understand the implications that action can have on your aid.

Electronic Devices: For some team activities, you will need to use a phone/tablet/laptop. Other than that, make sure your devices are put away during class unless we are using them in a team exercise. *Non-class device use will count negatively against the entire class's participation grade.*

Students with Disabilities: Students who feel that they have disabilities that require special arrangements for them to take the course *must* register with the Disability Resource Center. Students are eligible for special services to which both the Center and the professor agree. In general, *it is the student's responsibility* to contact the professors at least one week before the relevant assignment to make arrangements. You can contact the Disability Resource Center in Campus Center 137, or at 442-5490, if needed.

Incompletes: As per both the Graduate and Undergraduate Bulletins, the grade of Incomplete (I) will be given "only when the student has nearly completed the course requirements but because of circumstances beyond the student's control the work is not completed." A student granted an incomplete will make an agreement specifying what material must be made up, and a date for its completion. The incomplete will be converted to a normal grade on the agreed upon completion date based upon whatever material is submitted by that time.

Important: Incompletes will *not* be given to students who have not fulfilled their classwork obligations, and who, at the end of the semester, are looking to avoid failing the course. This is asking for special treatment.

Responsible Use of Information Technology: Students are required to read the University at Albany Policy for the Responsible Use of Information Technology available at the ITS website: https://wiki.albany.edu/display/public/askit/Responsible+Use+of+Information+Technology+Policy

Academic Integrity

In this class, some course work and examinations are *individual* exercises. The individual work that you do must be *yours* – not that of other students, friends, tutors, *etc*. While it may seem like the easy way out of doing the assignments to copy them from others, this strategy will backfire on the tests, when you will not know the material you would have learned from doing the assignments. You may of course form study groups, discuss assignments and techniques in general terms, *etc.*, but the assignments themselves *must* be your own work. In particular, two or more people may not create an individual assignment together and submit it for credit. *Please ask if you have any questions about academic integrity.*

I am also personally offended by cheating, in part because it hurts the honest students in the class. We will try our hardest to catch cheaters. If we catch a student cheating, we will not go easy on him or her. Given that, is it really worth it?

The Graduate and Undergraduate Bulletins state the university's policies on academic integrity. You will be held to these policies. You are expected to be familiar with them.

A (non-exhaustive) list of unacceptable activities is:

- Allowing other students to see or copy your assignments.
- Examining or copying another student's assignments.
- Allowing other students to see or copy your work during an exam.
- Examining or copying another student's work during an exam.
- Getting answers or help from people, or other sources (*e.g.* research papers, web sites) without acknowledging them.
- Defacing or deleting class shared documents.
- Lying to the Professor about issues of academic integrity.

Any incident of academic dishonesty in this course, no matter how "minor" will result in

- No credit for the affected assignment.
- A written report will be sent to the appropriate University authorities.
- One of -
    - A final mark reduction by *at least* one-half letter grade (e.g. B → B-, C- → D+),
    - A Failing mark (E) in the course, and referral of the matter to the University Judicial System for disposition.

Policies from Graduate Bulletin: http://www.albany.edu/graduate_bulletin/regulations.html

Timeline

Week	Topics	Readings
1	Analytics and Data Science	Ch. 1.
2	Case: Advertising and Promotion	Ch. 2.
3	Database	App. 1.
4	Statistics	App. 2.
5	Statistics	
6	Case Studies I	
7	Regression and Classification	App. 3.
8	Regression and Classification	
9	Case Studies II	
10	Machine Learning	App. 4.
11	Machine Learning	
12	Case Studies III	
13	Comprehensive Case Studies I	
14	Comprehensive Case Studies II	

Miscellaneous

Extra credit opportunities
During the semester the university and others hold events that may be of interest to students in this course. If you attend an event and write a summary and reflection piece on the event (specified in individual assignments) you may receive extra credit worth up to 1% of the course value. A maximum of 5% of extra credit can be accrued this way.
There are no other extra credit mechanisms available in this course.

INF 625: *Data Mining* (3 cr)
Fall 2018

I tell my students, 'When you get these jobs that you have been so brilliantly trained for, just remember that your real job is that if you are free, you need to free somebody else. If you have some power, then your job is to empower somebody else. This is not just a grab bag candy game.' – Toni Morrison

Course Instructor

Instructor: George Berg
Email: gberg@albany.edu
- Office Hours:
  Tuesdays and Thursdays: 2:50 – 3:50 in the Campus Center. Ground floor near the rear grand staircase.
- Wednesdays: 2:50 – 3:50 in Draper 105.

Other Contact Info:
- Office: UAB 413
- Phone: 1-518-437-4937
- Twitter: @GBerg_UAlbany
- FB: @GeorgeBergUAlbanyCS

Course Description

INF 625 *Data Mining* (3)
Fundamental concepts and techniques to discover patterns in data, identify variables with predictive power, and to develop predictive models. Topics include data mining and machine learning concepts and methods: data selection, representation, cleaning and preprocessing; algorithms such as classification, clustering and association rules; advanced techniques such as deep learning, and text and web mining. Best practices on the selection of methods and tools to build predictive models.
Prerequisite(s): INF 506.

Expected Student Outcomes

This is a comprehensive graduate course in the analysis ("mining") of data to find relevant and significant patterns in data.
By the end of this course, students will

- Collect, store, edit and curate data sets to provide the basis of meaningful mining.
- Understand the foundational concepts and tools of data mining.
- Use various computer packages to implement the above concepts and to analyze data.
- Recognize privacy aspects of data and data mining, and prepare data repositories and analyses that are respectful of the privacy of those whose data is used.

Class Meetings

Lecture

The lecture meets twice week: Tuesdays and Thursdays, 1:15 – 2:35 PM in Husted 225.

Required Texts

Charu C. Aggarwal, *Data Mining: The Textbook*, Springer, 2015. ISBN-13 978-3-319-38116-9.

Recommended Text

There is no recommended text for this class.

Additional Readings

There will be readings that will be available to the students online or via Blackboard. When these readings are assigned, the class will be told where they can be found.

TEAM-BASED LEARNING (TBL)

This course uses Team-based Learning (TBL). This section describes how we will be using TBL in this class.

AN ABSOLUTELY CRUCIAL POINT: The course is divided into learning modules. You ***must*** do the readings for each module ***before*** the unit's start. This is because each unit starts with a Readiness Assessment Test (RAT). Readings must be done before the RAT tests for the module (dates given in the syllabus below). The RAT tests are based solely upon the readings, and not on lecture or other in-class preparation beforehand.

Teams

This course will be using a Team-Based-Learning (TBL) format (http://www.teambasedlearning.org). This instructional method aims to help develop your learning skills and will be done in a way that will hold teams accountable for using course content to make decisions that will be reported publically and subject to cross-team discussion/critique. You will be assigned to a team with approximately 6 members. Teams will be formed during the first week of the term. Teams will work together for most in-class activities throughout the semester.

Your grade will be influenced by team performance on team-based assignments. While in many courses, group work can be structured unfairly, such that some students end up doing all the work while everyone shares in the credit, two factors will prevent that from happening in this class. First, nearly all graded team work will be preceded by one or more preparatory assignments, for which each individual will be accountable (*e.g.* the RATs), thus ensuring that individual team members are each prepared to contribute to the team effort. Second, each individual's contribution to team work will be assessed by his or her teammates several times during the semester.

Phase 1 – Preparation: You will complete **specified readings** to begin each module

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- **Individual RAT (iRAT)** – You individually complete a 10 question multiple-choice test based on the readings.

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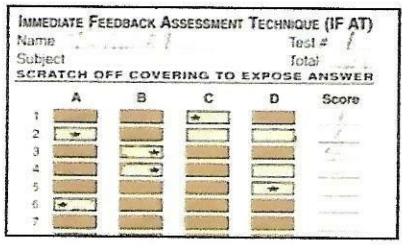

- **Appeals Process** - Once your team has completed the team test, your team has the opportunity to complete an appeal. The purpose of the appeal process is to allow your team to identify questions where you disagree with the question key or question wording or ambiguous information in the readings. Instructors will review the appeals outside of class time and report the outcome of your team appeal at the next class meeting. Only teams are allowed to appeal questions (no individual appeals).

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Total			**100%**

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Policies

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Timeline

Week	Topics	Readings
1	Introduction to Data Mining	Ch. 1.
2	Data Collection and Preparation	Ch. 2.
3	Metrics	Ch. 3.
4	Patterns: Association	Ch. 4.
5	Patterns: Association	Ch. 5.
6	Patterns: Clustering	Ch. 6.
7	Patterns: Clustering	Ch. 7.
8	Patterns: Outliers	Ch. 8.
9	Patterns: Classification	Ch. 10.
10	Text Mining	Ch. 13.
11	Sequence and Series Mining	Ch. 14.
12	Privacy Preserving Mining	Ch. 20.
13	Comprehensive Case Studies I	
14	Comprehensive Case Studies II	

Miscellaneous

Extra credit opportunities
During the semester the university and others hold events that may be of interest to students in this course. If you attend an event and write a summary and reflection piece on the event (specified in individual assignments) you may receive extra credit worth up to 1% of the course value. A maximum of 5% of extra credit can be accrued this way.
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INF 626: *Big Data and Stream Analytics* (3 cr)
Fall 2018

I tell my students, 'When you get these jobs that you have been so brilliantly trained for, just remember that your real job is that if you are free, you need to free somebody else. If you have some power, then your job is to empower somebody else. This is not just a grab bag candy game.' – Toni Morrison

Course Instructor

Instructor: George Berg
Email: gberg@albany.edu
- Office Hours:
  Tuesdays and Thursdays: 2:50 – 3:50 in the Campus Center. Ground floor near the rear grand staircase.
- Wednesdays: 2:50 – 3:50 in Draper 105.

Other Contact Info:
- Office: UAB 413
- Phone: 1-518-437-4937
- Twitter: @GBerg_UAlbany
- FB: @GeorgeBergUAlbanyCS

Course Description

INF 626 *Big Data and Stream Analytics* (3)
In data science, the analysis of large amounts of data is frequently expressed as the 4 V's: volume, velocity, variety, and veracity. This course examines the underlying concepts and practical implications of each of these dimensions at the frontier of data analytics. The size and amount of time available to process data both affect the types of analysis that are possible, as does the variety of data. In addition, issues of data source, distribution, and how much it can be trusted as the basis for analysis are increasingly important.
Prerequisite(s): INF 624.

Expected Student Outcomes

This is a comprehensive graduate course in the analysis of big data and streaming data. Specifically big data refers to amounts of data that preclude analysis by normal software methods. Streaming data introduces time challenges as well. The volume and pace of data introduce their own challenges in analyzing the data, especially in time critical situations.
By the end of this course, students will

- Examine data with statistical, machine learning, and data mining concepts to discern meaningful patterns, and to create predictive models.
- Connect how those techniques are affected by the size and pace of the incoming data.
- Use various computer packages to implement the above concepts and to analyze data.
- Recognize the challenges of variety in type, distribution and other relevant properties of data to analyze.

- Be aware of problems with the source and provenance of data. This can range from statistical properties of data used through potentially malevolent attempts to affect analyses.

Class Meetings

Lecture

The lecture meets twice week: Tuesdays and Thursdays, 1:15 – 2:35 PM in Husted 225.

Required Texts

1. Russell Jurney, *Agile Data Science*, O'Reilly, 2017. ISBN-13 978-0133892026.
2. Sandy Ryza, Uri Laserson, Sean Owen & Josh Wills, *Advanced Analytics with Spark*, O'Reilly. 2015. ISBN-13

Recommended Text

There is no recommended text for this class.

Additional Readings

There will be readings that will be available to the students online or via Blackboard. When these readings are assigned, the class will be told where they can be found.

TEAM-BASED LEARNING (TBL)

This course uses Team-based Learning (TBL). This section describes how we will be using TBL in this class.

AN ABSOLUTELY CRUCIAL POINT: The course is divided into learning modules. You ***must*** do the readings for each module ***before*** the unit's start. This is because each unit starts with a Readiness Assessment Test (RAT). Readings must be done before the RAT tests for the module (dates given in the syllabus below). The RAT tests are based solely upon the readings, and not on lecture or other in-class preparation beforehand.

Teams

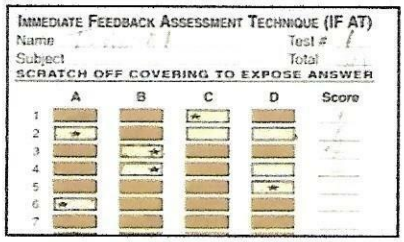
This course will be using a Team-Based-Learning (TBL) format (http://www.teambasedlearning.org). This instructional method aims to help develop your learning skills and will be done in a way that will hold teams accountable for using course content to make decisions that will be reported publically and subject to cross-team discussion/critique. You will be assigned to a team with approximately 6 members. Teams will be formed during the first week of the term. Teams will work together for most in-class activities throughout the semester.

Your grade will be influenced by team performance on team-based assignments. While in many courses, group work can be structured unfairly, such that some students end up doing all the work while everyone shares in the credit, two factors will prevent that from happening in this class. First, nearly all graded team work will be preceded by one or more preparatory assignments, for which each individual will be accountable (*e.g.* the RATs), thus ensuring that individual team members are each prepared to contribute to the team effort. Second, each individual's contribution to team work will be assessed by his or her teammates several times during the semester.

Phase 1 – Preparation: You will complete **specified readings** to begin each module

Phase 2 – Readiness Assurance Test: At the first class meeting of each module, you will be given a **Readiness Assurance Test** (RAT). The RAT test (10 multiple-choice questions) measures your comprehension of the assigned readings, and helps you learn the material needed to begin problem solving in phase 3. The purpose of phase 2 is to ensure that you and your teammates have sufficient foundational knowledge to begin learning how to apply and use the course concepts in phase 3. **RATs are closed book and based on the assigned readings.**

- **Individual RAT (iRAT)** – You individually complete a 10 question multiple-choice test based on the readings.
- **Group/Team RAT (gRAT)** - Following the iRAT, the same multiple-choice test is re-taken with your team. These tests use a "scratch and win" type answer cards known as an IF-AT. You negotiate with your teammates, and then scratch off the opaque coating hoping to reveal a star that indicates a correct answer. *Your team is awarded **10** points if you uncover the correct answer on the **first** scratch, **6** points for **second** scratch, and **2** point for **third** scratch.* No points are awarded for fourth or fifth.



- **Appeals Process** - Once your team has completed the team test, your team has the opportunity to complete an appeal. The purpose of the appeal process is to allow your team to identify questions where you disagree with the question key or question wording or ambiguous information in the readings. Instructors will review the appeals outside of class time and report the outcome of your team appeal at the next class meeting. Only teams are allowed to appeal questions (no individual appeals).
- **Feedback and Mini-lecture** - Following the RATs and Appeal Process, the instructor may provide a short clarifying lecture on any difficult or troublesome concepts.

Phase 3 - In-Class Activities: You and your team use the foundational knowledge, acquired in the first two phases, to make decisions that will be reported publically and subject to cross-team discussion/critique. We will use a variety of methods to have you report your team's decision at the end of each activity. The presentation of your team responses is critical to the team grade. You should expect each team member to present individually and for the entire team to present with smooth transitions.

Grading

Category	Assignment Type	Weight Within Category	Category Weight in the Course
Individual Grades			(45% – 70%)*
	iRAT Tests	25%	
	Individual Assignments	35%	
	Midterm Exam	15%	
	Final Exam	25%	
Team Grades			(20% – 45%)*
	gRAT Tests	50%	
	Team Exercises	50%	

Class Participation and Peer Evaluation			(10% – 25%)*
	Peer Evaluation	75%	
	Class Participation (Instructor Determined)	25%	
Total			**100%**

* The class will determine the grade weights on 08/25/2018. Student teams will negotiate the exact proportions of individual grades, team grades, and peer evaluation for the course, with in the ranges given above. For example, they may agree on individual grades at 50%, team grades at 30%, and peer evaluation at 20% of a students' course grade. The percentages *must* total to 100%, of course.

Grade Determination:

Although philosophically I would prefer not to "grade", grades for this course are based on the total number of points a student, completing all assignments successfully, would earn. Each assignment will carry a fixed number of points. At the end of the semester your final grade will be based upon the number of points you've attained divided by the maximum number of points that could possibly be attained. For example, if the maximum amount of possible points possible is 125 and you have accrued 100 points your final grade will be 100 divided by 125 or 80% (a B-); if you accrued 110 out of 125 it will be 88 (or a B+), etc. The University at Albany uses a letter-based grading system and utilizes pluses and minuses (+/-) to allow for variations of the assigned grades. Acceptable grades are **A, A-, B+, B, B-, C+, C, C-, D+, D, D-, E ("E" being the designation for failure). The University does not use grades of A+ or F.**

- 95-100=A
- 94-90 = A-
- 86-89 = B+
- 83-85 = B
- 82-80 = B-
- 76-79 = C+
- 73-75 = C
- 72-70 = C-
- 66-69 = D+
- 63-65 = D
- 62-60 = D-
- 59 and below = E (Designation for failure or E)

Policies

Attendance: Your in-class performance is key to your success in this course. Attendance, itself, is not explicitly graded (but it does factor into class participation). Instead, graded in-class activities and assignments constitute an important part of the course grade. Keeping a passing average on these is not possible without consistent attendance. Missing class means the student earns an automatic zero for all individual and team activities or assignments missed. No make-up opportunities will be available.

Tardiness: Missing an assignment or activity that happens before a student arrives or after a student leaves also earns a zero. No make-up opportunities will be available. Tardiness also factors into class participation.

If you know that it will be difficult for you to consistently get to class on time and stay for the entire period, you should take this course at a time that better fits your schedule. Missing or being late frequently will guarantee a low grade for the course.

Make-up Policy: There are generally no make-up opportunities for missed assignments except in extenuating circumstances. Instead of asking to make up missed work, please use the course 'safety valves' described below.

Since there will be situations in your life when missing a class meeting is simply unavoidable, this course has 2 no-fault safety valves.

Safety Valve 1: The lowest iRAT and gRAT is dropped (Peer Evaluations, individual Assignments, and Exams are *not* dropped). A missed assignment will count against this (*i.e.* a zero from a miss would be your low score; you don't get a miss and a drop).

Safety Valve 2: If you become seriously ill during the semester, or become derailed by unforeseeable life problems, and have to miss so many assignments that it will ruin your grade, schedule a meeting with the instructor in order to make arrangements for you to drop the course to save your grade point average. Don't wait until it's too late to do this when you get in trouble.

Late Assignments: Out of class assignments are due on the due date, by the assigned time. Late individual assignments will be accepted, but at the cost of a full letter grade for missing the deadline, and an additional letter grade for each additional 24 hours late.
In-class assignments may be done only on the days they are scheduled.

Withdrawal from the Course: The **drop date** for the Fall 2018 semester is **Monday, November 9, 2018 for graduate students in full semester courses.** That is the last date you can drop a course and receive a 'W'. It is your responsibility to take action by this date if you wish to drop the course. In particular, grades of "incomplete" will not be awarded to students because they missed the drop deadline. Given that dropping a course can have financial aid implications, please see your advisor or the Financial Aid office before dropping a course so you understand the implications that action can have on your aid.

Electronic Devices: For some team activities, you will need to use a phone/tablet/laptop. Other than that, make sure your devices are put away during class unless we are using them in a team exercise. *Non-class device use will count negatively against the entire class's participation grade.*

Students with Disabilities: Students who feel that they have disabilities that require special arrangements for them to take the course *must* register with the Disability Resource Center. Students are eligible for special services to which both the Center and the professor agree. In general, *it is the student's responsibility* to contact the professors at least one week before the relevant assignment to make arrangements. You can contact the Disability Resource Center in Campus Center 137, or at 442-5490, if needed.

Incompletes: As per both the Graduate and Undergraduate Bulletins, the grade of Incomplete (I) will be given "only when the student has nearly completed the course requirements but because of circumstances beyond the student's control the work is not completed." A student granted an incomplete will make an agreement specifying what material must be made up, and a date for its completion. The incomplete will be converted to a normal grade on the agreed upon completion date based upon whatever material is submitted by that time.

Important: Incompletes will *not* be given to students who have not fulfilled their classwork obligations, and who, at the end of the semester, are looking to avoid failing the course. This is asking for special treatment.

Responsible Use of Information Technology: Students are required to read the University at Albany Policy for the Responsible Use of Information Technology available at the ITS website: https://wiki.albany.edu/display/public/askit/Responsible+Use+of+Information+Technology+Policy

Academic Integrity

In this class, some course work and examinations are *individual* exercises. The individual work that you do must be *yours* – not that of other students, friends, tutors, *etc*. While it may seem like the easy way out of doing the assignments to copy them from others, this strategy will backfire on the tests, when you will not know the material you would have learned from doing the assignments. You may of course form study groups, discuss assignments and techniques in general terms, *etc.*, but the assignments themselves *must* be your own work. In particular, two or more people may not create an individual assignment together and submit it for credit. *Please ask if you have any questions about academic integrity.*

I am also personally offended by cheating, in part because it hurts the honest students in the class. We will try our hardest to catch cheaters. If we catch a student cheating, we will not go easy on him or her. Given that, is it really worth it?

The Graduate and Undergraduate Bulletins state the university's policies on academic integrity. You will be held to these policies. You are expected to be familiar with them.

A (non-exhaustive) list of unacceptable activities is:

- Allowing other students to see or copy your assignments.
- Examining or copying another student's assignments.
- Allowing other students to see or copy your work during an exam.
- Examining or copying another student's work during an exam.
- Getting answers or help from people, or other sources (*e.g.* research papers, web sites) without acknowledging them.
- Defacing or deleting class shared documents.
- Lying to the Professor about issues of academic integrity.

Any incident of academic dishonesty in this course, no matter how "minor" will result in

- No credit for the affected assignment.
- A written report will be sent to the appropriate University authorities.
- One of -
    - A final mark reduction by *at least* one-half letter grade (*e.g.* B → B-, C- → D+),
    - A Failing mark (E) in the course, and referral of the matter to the University Judicial System for disposition.

Policies from Graduate Bulletin: http://www.albany.edu/graduate_bulletin/regulations.html

Timeline

Week	Topics	Readings
1	Big Data	Jurney, Ch. 1.
2	Big Data	Ryza, Ch. 1.
3	Agile Data Analytics/Hadoop	Jurney, Ch. 2.
4	Agile Data Analytics/Hadoop	
5	Data Issues	Jurney, Ch. 3.
6	Data Issues	Jurney, Ch. 4.
7	Spark	Ryza, Ch. 2.
8	Spark	
9	Visualization	Jurney, Ch. 5, Ryza, Ch. 7.
10	Decision Trees	Ryza, Ch. 4.
11	Anomaly Detection	Ryza, Ch. 5.
12	Prediction	Jurney, Chs. 7&8
13	Comprehensive Case Studies I	
14	Comprehensive Case Studies II	

Miscellaneous

Extra credit opportunities
During the semester the university and others hold events that may be of interest to students in this course. If you attend an event and write a summary and reflection piece on the event (specified in individual assignments) you may receive extra credit worth up to 1% of the course value. A maximum of 5% of extra credit can be accrued this way.
There are no other extra credit mechanisms available in this course.

INF 627: *Data Analytics Practicum* (3 cr) Fall 2018

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Other Contact Info:
- Office: UAB 413
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Course Description

INF 627 *Data Analytics Practicum* (3)
Hands-on exercises and projects using the latest techniques and tools that prepare students to put all the knowledge learned in previous course into practice. Commercial and open-source tools are used to conduct analyses and build prototypes using real-world case students and data sets. Case studies cover building analytical and predictive models in selected areas (*e.g.* emergency preparedness, homeland security, cybersecurity, healthcare, defense, finance, energy).
Prerequisite(s): INF 624.

Expected Student Outcomes

This is a culminating graduate course in data analytics Team of students will complete several smaller projects and one larger, term project that apply the concepts and tools of data analytics to analyze data and draw conclusions in real-world DA problems.
The goals of this course are to help students learn

- How to apply DA concepts to real world problems.
- How to apply DA tools to real world problems.
- How to work in teams on the above.
- How to present results in a meaningful fashion to indicate solutions to DA problems..

Class Meetings

Lecture

The lecture meets twice week: Tuesdays and Thursdays, 1:15 – 2:35 PM in (Lecture Center) LC 25.

Required Texts
There is no required text for this class.

Recommended Text
There is no recommended text for this class.

Additional Readings
There will be readings that will be available to the students online or via Blackboard. When these readings are assigned, the class will be told where they can be found.

Grading

Category	Assignment Type	Weight Within Category	Category Weight in the Course
Individual Grades			30%
	Individual Assignments	100%	
Team Grades			50%
	Team Exercises	35%	
	Term Projects	65%	
Class Participation and Peer Evaluation			20%
	Peer Evaluation	75%	
	Class Participation (Instructor Determined)	25%	
Total			**100%**

Grade Determination:

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Policies from Graduate Bulletin: http://www.albany.edu/graduate_bulletin/regulations.html

Timeline

Week	Topics
1	Introduction
2	Review of DA Concepts
3	Case Study I
4	Case Study I Post Mortem
5	Review of DA Tools
6	Case Study II
7	Case Study II Post Mortem
8	Project Management Principles and Tools
9	Semester Project Introduction
10	Work on Semester Projects
11	Work on Semester Projects
12	Work on Semester Projects
13	Work on Semester Projects
14	Semester Project Presentations

Miscellaneous

Extra credit opportunities
During the semester the university and others hold events that may be of interest to students in this course. If you attend an event and write a summary and reflection piece on the event (specified in individual assignments) you may receive extra credit worth up to 1% of the course value. A maximum of 5% of extra credit can be accrued this way.
There are no other extra credit mechanisms available in this course.

THE COLLEGE OF EMERGENCY PREPAREDNESS, HOMELAND SECURITY AND CYBERSECURITY

UNIVERSITY AT ALBANY State University of New York

IST 529: Text Analysis (3 Credits)

Day/Time: Tuesday and Thursday 8:45 – 10:05 AM
Location: HU 109
Instructor: Dr. Michael D. Young
Contact: myoung4@albany.edu

Office Location and Hours:
Tuesday and Thursday HU B-16 10:15 – 11:15 AM
342 Draper Hall by appointment

Course Description:
Text Analysis provides an overview of two major approaches to text analysis: computational linguistics (aka Natural Language Processing) and content analysis. The first part of the course focuses on understanding and implementing common computational linguistics procedures (classification, summarization, topic modeling, and sentiment analysis) using Python and libraries such as the Natural Language Toolkit (nltk). The second part of the course turns to content analysis approaches using Profiler Plus and a variety of coding schemes. In the final part of the course, students will develop or extend an existing approach to analyze a corpus of texts they select in a manner of their choosing.

Course Structure and Requirements:
This course is largely instructor guided hands-on application of techniques both individually and in groups.

Student Learning Objectives:
Upon completion of the course, students should be able to accomplish the following activities:

- Describe and distinguish the computational linguistics and content analysis approaches to text analysis.
- Describe and conduct text classification, text summarization, topic modeling, and information extraction procedures.
- Describe and calculate text analysis metrics, including accuracy, precision, and recall.
- Describe and implement a text analysis workflow with evaluation and validation procedures.

Prerequisites: None. Prior experience with Python would be helpful.

Grading:
This course is A-E graded and the grades are determined based on 6 graded exercises:

Text Classification Exercise: 15%

Text Summarization Exercise: 20%

Topic Modeling Exercise: 20%

Text Annotation Exercise: 5%

Information Extraction Exercise: 20%

Final Project: 30% (5% presentation)

Grade Determination:

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- 73-75 = C
- 72-70 = C-
- 66-69 = D+
- 63-65 = D
- 62-60 = D-
- 59 and below = E (Designation for failure or E)

Required Readings:

Ole Holsti (1969), *Content analysis for the social sciences and humanities*, Addison-Wesley Pub. Co (provided on Blackboard)

Dipanjan Sarkar (2016), *Text Analytics with Python: A Practical Real-World Approach to Gaining Actionable Insights from Your Data*, Apress.

Michael Young (2018), *Text Analysis with Profiler Plus, XERF, and TERF.*

Recommended Readings:

Python for Everybody: Exploring Data In Python 3, available from http://do1.dr-chuck.com/pythonlearn/EN_us/pythonlearn.pdf

Software Packages:

Python (available from python.org)
NLTK (available from nltk.org)
Profiler Plus 7.x (available from Dr. Young)
XERF (available from Dr. Young)
TERF (available from Dr. Young)

Lecture and Reading Schedule:

Dates	Lecture Title	Readings	Notes
Week 1	Two Approaches to Text Analysis Natural Language Basics	*Sarkar*, Chapter 1 *Holsti*, Chapters 1	
Week 2	Working with text in Python	*Sarkar*, Chapters 2 & 3	
Week 3	Text Classification	*Sarkar*, Chapter 4	
Week 4	Text Summarization	*Sarkar*, Chapter 5	Text Classification exercise due.
Week 5	Topic Modeling	*Sarkar*, Chapter 6.	Text Summarization Exercise due.
Week 6	Content Analysis	*Holsti*, Chapters 1-5	
Week 7	Profiler Plus, the structure of a coding scheme, XERF, and TERF	*Young, Profiler Plus basics, XERF basics, TERF basics, How coding schemes work.*	Topic Modeling Exercise due.
Week 8	Pattern and Reduction Operators	XERF help file.	In-class exercises using the Profiler Plus operators
Week 9	Information Extraction	*Young, Information Extraction*	
Week 10	Evaluation and Validation—the gold standard!	Young & Hermann, *Increased Complexity*	Information Extraction Exercise due.

Dates	Lecture Title	Readings	Notes
Week 11	Semantic and Sentiment Analysis	*Sarkar*, Chapter 7	Annotation Exercise due.
Week 12	People vs Machines:	TBD	Comparison and discussion of the merits of statistical and rule based approaches to text analysis.
Week 13	Work on final projects		In-class, supervised work on projects
Week 14	Work on final projects		In-class, supervised work on projects
Week 15	Work on final projects		In-class, supervised work on projects
Final Exam	Project Presentations		Final projects due

related to the grade attained. However, as the students are paying for the course I assume they will decided how best to receive value for their dollars. I expect students to have read and thought about the material or tasks assigned for that week. If language or some other barrier inhibits you from participating actively, you should meet with the instructor during the first two weeks of class to devise a solution. Attendance is not participation.

Missed Exams and Assignments:
Students missing an exam or assignment without prior approval of the instructor (or documentation of an emergency medical situation) will receive a "0" for that exam or assignment unless they have a valid and documented excuse. UAlbany's medical excuse policy can be reviewed at: http://www.albany.edu/health_center/medicalexcuse.shtml.

Disability Policy: Reasonable accommodations will be provided for students with documented physical, sensory, systemic, medical, cognitive, learning and mental health (psychiatric) disabilities. If you believe you have a disability requiring accommodation in this class, please notify the Disability Resource Center (518- 442-5490; drc@albany.edu). Upon verification and after the registration process is complete, the DRC will provide you with a letter that informs the course instructor that you are a student with a disability registered with the DRC and list the recommended reasonable accommodations.

Academic Dishonesty Policy: Students are expected to comply with the University at Albany's Community Rights and Responsibilities. An incident of unethical conduct (e.g. cheating, plagiarism) or classroom disruption will result in a Fail and referral to the appropriate Departmental and University Committees. More information on academic integrity is available at the following website: http://www.albany.edu/undergraduate_bulletin/regulations.html.

Grade Complaints: Students or teams that feel their exams or assignments have been graded incorrectly should follow a three-step procedure. First, the student or team should carefully read the exam or assignment and identify the precise problem with the grading. Second, the student or

team must send a written appeal explaining why their answer was appropriate to the instructor. Third, the instructor will meet with the student or team to discuss the appeal and resolve the conflict. If this process is not satisfactory, students may file a grievance with the CEHC Grievance Committee.

THE COLLEGE OF EMERGENCY PREPAREDNESS, HOMELAND SECURITY AND CYBERSECURITY

UNIVERSITY AT ALBANY State University of New York

IST 667: Intelligence Analysis Research Seminar (3 Credits)

Day/Time: Tuesday and Thursday 8:45 – 10:05 AM
Location: HU 109
Instructor: Dr. Michael D. Young
Contact: myoung4@albany.edu

Office Location and Hours:
Tuesday and Thursday HU B-16 10:15 – 11:15 AM
342 Draper Hall by appointment

Course Description Structure and Requirements:
Students work with a faculty advisor on an academic research project on a topic of interest to the student and faculty member, related to student's substantive and technical interests. Final projects should contain a statement of research questions, proposed method for addressing the questions, data collection and analysis or other analytic activity, and project discussion.

Students are expected to complete the guided research project in two semesters in one of two ways:

1) Developing a project in one of their elective courses and completing that project in a single semester of the Intelligence Analysis Research Seminar.
2) Completing two consecutive semesters of the Intelligence Analysis Research Seminar, where the first semester is devoted primarily to the design of the project and necessary data collection and the second semester is devoted primarily to data analysis and writing.

Student Learning Objectives:
Upon completion of the course, students should be able to accomplish the following activities:

- Conduct independent intelligence analysis in an area of substantive interest.
- Effectively use one or more intelligence analysis tools.
- Produce an intelligence analysis product in their domain of interest.
- Conduct professional presentations.

Prerequisites:
Completion of at least 24 MSIS credits, including program core courses.

Grading:
This course is S/U graded. S is equivalent to a B (83) or better, and U is equivalent to a B- (82) or lower. Students are assessed on the following assignments:

Semester 1.

- Research Topic and focused statement of relevance: 5%
- Literature Review: 25%
- Hypothesis or claim: 5%
- Research Design: 25%
- Peer Review of Research Design: 10%
- Data Collection: 30%

Semester 2.

- Data Analysis Writeup: 25%
- Peer Methods/Analysis Review: 10%
- Research Paper Draft: 15%
- Peer Review: 10%
- Research Presentation: 10%
- Final Research Paper: 30%

Description of Course Requirements:
Attendance and participation are required along with continuous progress in the execution of the selected research project.

Required Readings:
None. Individual reading lists will be created in consultation between the faculty and students.

Schedule:

Dates		Semester 1 Due Dates	Semester 2 Due Dates
Week 1	Group discussion, consultation, and peer review of progress.		
Week 2	Group discussion, consultation, and peer review of progress.	Research Topic and focused statement of relevance	
Week 3	Group discussion, consultation, and peer review of progress.		
Week 4	Group discussion, consultation, and peer review of progress.		

Dates		Semester 1 Due Dates	Semester 2 Due Dates
Week 5	Group discussion, consultation, and peer review of progress.		Data Analysis Writeup
Week 6	Group discussion, consultation, and peer review of progress.	Literature Review	Peer Methods/Analysis Review:
Week 7	Group discussion, consultation, and peer review of progress.	Hypothesis or claim	
Week 8	Group discussion, consultation, and peer review of progress.		
Week 9	Group discussion, consultation, and peer review of progress.	Research Design	
Week 10	Group discussion, consultation, and peer review of progress.	Peer Review of Research Design	Research Paper Draft
Week 11	Group discussion, consultation, and peer review of progress.		Peer Review of Research Paper
Week 12	Group discussion, consultation, and peer review of progress.		
Week 13	Group discussion, consultation, and peer review of progress.		
Week 14	Group discussion, consultation, and peer review of progress.		Final Research Paper
Week 15	Presentation of projects.		Research Presentation
Final Exam	Presentation of projects.	Data	Research Presentation

Policies:

Attendance and Participation Policy: Regular attendance and participation is required. If students accrue more than five unexcused absences they will automatically fail the course. If language or some other barrier inhibits you from participating actively, you should meet with the instructor during the first two weeks of class to devise a solution. Attendance is not participation.

Missed Exams and Assignments:
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Intelligence Analysis

The College of Emergency Preparedness, Homeland Security and Cybersecurity at the University at Albany is seeking applicants for a tenured or tenure-track faculty position in homeland security. The position is open with respect to sub-field specialization, but we are particularly interested in applicants with professional experience who are able to contribute to our Homeland Security undergraduate concentration and/or our Intelligence Analysis track in the Masters of Science in Information Science in areas such as HUMINT, GEOINT, OSINT. The rank is open.

The mission of the College of Emergency Preparedness, Homeland Security and Cybersecurity is to support high-quality academic programs for undergraduate and graduate students, to produce new knowledge though innovative research, and to provide training and lifelong learning opportunities for working professionals - all to help prepare for, protect against, respond to, and recover from a growing array of natural and man-made risks and threats in the state, the nation, and around the world.

UAlbany is a nationally recognized leader in security and preparedness training, research and education, and has longstanding partnerships with key security and emergency response agencies across the State. The University has received tens of millions of dollars in federal, state and private sector support to its schools, colleges and research centers based on this expertise. Partnerships with government agencies, private industry and not-for-profit organizations provides an opportunity to contribute to highly applied research and access to a wealth of resources held in these organizations and agencies. All faculty members in the College will join a research group, where they will have the opportunity to work with faculty members from various disciplines from across the University.

Given the interdisciplinary nature of the College, many faculty will have joint appointments with other schools and colleges at the University at Albany (e.g., Cybersecurity in the College of Engineering and Applied Science, Digital Forensics in the School of Business, and Cyber Warfare in the Rockefeller College of Public Affairs and Policy). The unique model of the College places its faculty in a highly collaborative core, while also fostering interaction with a large interdisciplinary network throughout the University. Across the University, a rich learning and research environment is marked by a highly accomplished faculty, who are essential to delivering high quality academic programs and producing influential and cutting-edge research. The faculty is comprised of nationally and internationally visible researchers and scholars and highly dedicated teachers.

Requirements:

The successful candidate will hold a PhD or ABD* in an appropriate field such as Informatics, Information Studies, Information Science, Computer Science, Public Administration, Political Science, Public Policy, Homeland Security or an allied field from a college or university accredited by a U.S. Department of Education or an internationally recognized accrediting organization.

Senior applicants should have a well-established program of research and external funding; junior applicants should have a range of publications in submission, revision, and/or print that suggest a trajectory toward a tenurable research record.

The College is open to researchers using a wide range of methods. We are particularly interested in researchers that creatively employ mixed mode qualitative/quantitative approaches and that can contribute to the University at Albany's data analytics program.

The applicant must be able to teach at both the graduate and undergraduate levels and contribute to the core curriculum in the major and minor.

Applicants must address in their application their ability to work with culturally diverse populations.

*Please note that candidates who are expected to receive their PhD within the first year of appointment will be considered.

Data Analytics

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