UNIVERSITY
AT ALBANY
State University of New York

Office of the Provost & Vice President for Academic Affairs

February 21, 2014

Elizabeth L. Bringsjord
Interim Provost and Vice Chancellor
State University of New York
System Administration
State University Plaza
Albany, NY 12246

Dear Dr. Bringsjord,

I am pleased to submit for your consideration the attached New Undergraduate Degree Program Proposal for a BS degree in Digital Forensics.

While information security education has grown significantly over the past 10 years, education in Digital Forensics has only recently emerged as critical specialty – distinct from information security. Digital Forensics is a branch of forensic science that involves investigation, recovery, and analysis of information from digital devices – typically related to computer crime. Digital Forensics deals with post-mortem analysis of computer attacks and fraud; collection and presentation of criminal evidence; and determinations of responsibility and consequences. The Digital Forensics field is multidisciplinary. It involves application of information technologies and strategies within the public sector and private industry, international collaboration towards legislation development and law enforcement, as well as an understanding of human behavior. These activities have obvious benefits to the community-at-large by providing the capabilities and workforce to fill the demand for professionals to ensure the security and safety of citizens and the preservation of justice. The demand for Digital Forensics training is outpacing supply – leading to an acute shortage of training in Digital Forensics nationally and internationally. We are pleased to be the first SUNY campus to offer a bachelor's degree in Digital Forensics.

Should there be a need for additional information or clarification to facilitate processing, please contact Suzanne Freed, Assistant Vice Provost for Undergraduate Education at sfreed@albany.edu.

University Hall, 308
1400 Washington Avenue, Albany, New York 12222
PH: 518-956-8030 FX: 518-956-8043
www.albany.edu

Thank you for your consideration and assistance.

Sincerely,

Susan D. Phillips, Ph.D.
Provost and Vice President for Academic Affairs

Enclosure

c. Dr. Jeanette Altarriba, Vice Provost and Dean for Undergraduate Education
Donald Siegal, Dean, School of Business
Professor Sanjay Goel, Information Technology Management
Ms. Suzanne Freed, Asst Vice Provost for Undergraduate Education

New Program Proposal: Undergraduate Degree Program

Form 2A

This form should be used to seek SUNY's approval and the State Education Department's (SED) registration of a proposed new academic program leading to an associate's and/or bachelor's degree. Approval and registration are both required before a proposed program can be promoted or advertised, or can enroll students. The campus Chief Executive or Chief Academic Officer should send a signed cover letter and this completed form (unless a different form applies[1]), which should include appended items that may be required for Sections 1 through 6, 9 and 10 and MPA-1 of this form, to the SUNY Provost at program.review@suny.edu. The completed form and appended items should be sent as a single, continuously paginated document.[2] If Sections 7 and 8 of this form apply, External Evaluation Reports and a single Institutional Response should also be sent, but in a separate electronic document. Guidance on academic program planning is available at http://www.suny.edu/provost/academic_affairs/app/main.cfm.

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NOTE: Please update this Table of Contents automatically after the form has been completed. *To do this, put the cursor anywhere over the Table of Contents, right click, and, on the pop-up menus, select "Update Field" and then "Update Page Numbers Only." The last item in the Table of Contents is the List of Appended and/or Accompanying Items, but the actual appended items should continue the pagination.*

[1] Use a different form if the proposed new program will lead to a graduate degree or any credit-bearing certificate; be a combination of existing registered programs (i.e. for a multi-award or multi-institution program); be a breakout of a registered track or option in an existing registered program; or lead to certification as a classroom teacher, school or district leader, or pupil personnel services professional (e.g., school counselor).

[2] This email address limits attachments to 25 MB. If a file with the proposal and appended materials exceeds that limit, it should be emailed in parts.

Section 1. General Information		
Item	**Response** *(type in the requested information)*	
a) Institutional Information	Date of Proposal:	February 18, 2014
	Institution's 6-digit SED Code:	**210500**
	Institution's Name:	University at Albany, State University of New York
	Address:	*1400 Washington Ave Albany, NY 12222*
	Dept of Labor/Regent's Region:	*Capital Region*
b) Program Locations	List each campus where the entire program will be offered (with each institutional or branch campus 6-digit SED Code): 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) Proposed Program Information	Program Title:	Digital Forensics
	Award(s) (e.g., A.A., B.S.):	B.S.
	Number of Required Credits:	Minimum [120] If tracks or options, largest minimum [ ]
	Proposed HEGIS Code:	0799
	Proposed 6-digit CIP 2010 Code:	11.1003
	If the program will be accredited, list the accrediting agency and expected date of accreditation:	
	If applicable, list the SED professional licensure title(s)[3] to which the program leads:	
d) Contact Person for This Proposal	Name and title: Suzanne K Freed Asst Vice Provost for Undergraduate Education Telephone: 518-242-6046 E-mail: sfreed@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: Dr. Susan D Phillips, Provost and Vice President for Academic Affairs Signature and date: Susan D Phillips 2/21/14	
	If the program will be registered jointly[4] with one or more other institutions, provide the following information for each institution:	
	Partner institution's name and 6-digit SED Code: Name and title of partner institution's CEO: Signature of partner institution's CEO (or **append** a signed letter indicating approval of this proposal):	

Version 2013-10-15

[3] If the proposed program leads to a professional license, a specialized form for the specific profession may need to accompany this proposal.
[4] If the partner institution is non-degree-granting, see SED's CEO Memo 94-04.

Section 2. Program Information

2.1. Program Format

Check all SED-defined format, mode and other program features that apply to the **entire program**.

a) Format(s): [ ]Day [ ]Evening [ ]Weekend [ ]Evening/Weekend [ ]Not Full-Time

b) Modes: [x]Standard [ ]Independent Study [ ]External [ ]Accelerated [ ]Distance Education
NOTE: *If the program is designed to enable students to complete 50% or more of the course requirements through distance education, check Distance Education, see Section 10, and append a Distance Education Format Proposal.*

c) Other: [ ] Bilingual [ ] Language Other Than English [ ] Upper Division [ ] Cooperative [ ] 4.5 year [ ] 5 year

2.2. Diploma Program

NOTE: *This section is not applicable to a program leading to an associate's or a bachelor's degree.*

2.3 Program Description, Purposes and Planning

a) What is the description of the program as it will appear in the institution's catalog?

The undergraduate curriculum in digital forensics is designed to nurture the development of students who are able to think critically, perform high-level analysis, adapt to changing environments through innovation and exploration and have a deep understanding of the technical, legal, financial and socio-psychological influences that are related to the practice of digital forensics and investigation of cyber-crime.

The curriculum is structured with four components: Foundational principles, core competency, concentration and capstone. The first two components are designed to integrate the dissemination of fundamental principles with the cultivation of the critical skill set necessary for advance undergraduate coursework and interdisciplinary research. The remaining two components expand on these foundational skills to develop the topical expertise, technical depth, and independent analytic abilities that are essential to a well-rounded undergraduate educational experience.

This program will provide students with foundational technology skills in the areas of communications and networking, computer hardware, software development and database design, information security and the law. It will build core competency in the area of data preservation, examination and discovery in multiple areas including information security, criminal investigations, accounting and finance. The program culminates with capstone courses that consolidate the student learning in context of real problems. Overall, the program offers an academically rigorous preparation for students intending to pursue careers in digital forensics related fields as well as to pursue graduate education in the area of information security, digital forensics, and data analytics and law.

b) What are the program's educational and, if appropriate, career objectives, and the program's primary student learning outcomes (SLOs)? NOTE: SLOs are defined by the Middle States Commission on Higher Education in the *Characteristics of Excellence in Higher Education* as "clearly articulated written statements, expressed in observable terms, of key learning outcomes: the knowledge, skills and competencies that students are expected to exhibit upon completion of the program."

Learning Outcomes for B.S. Program in Digital Forensics
The learning outcomes are designed to ensure that the graduates of the program demonstrate the technical and professional proficiencies necessary to enable the forensic identification, investigation, collection and

examination of digital and multimedia information or evidence; and, as a result, become highly successful analysts, educators, and leaders in global and technological "innovation" of the 21st century.

Digital Forensics Outcome 1
Digital Forensics graduates will be prepared to conduct cyber-crime investigations involving computers and the Internet, while utilizing investigative methodology, legal processes and forensic techniques that facilitate such investigations in public and private sectors.

Digital Forensics Outcome 2
Digital Forensics graduates will be knowledgeable in forensic concepts, binary and hexadecimal values, hardware and software essentials, as well as, forensic analysis techniques and methodology involving digital and multimedia data or evidence.

Digital Forensics Outcome 3
Digital Forensics graduates will have the ability to utilize proper techniques for collecting and preserving digital information and data found in the cloud, as well as, physical cyber-crime scenes. Graduates will be able to collect, preserve, and examine "live" networks and mobile devices, such as smartphones, tablets, gaming consoles and other relevant "live" networked data that may be critical to an investigation.

Digital Forensics Outcome 4
Digital Forensics graduates will have the ability to conduct forensic analysis of binary data found in computers, removable media, and other electronic devices through hands-on experience with digital forensics utilities, tools and techniques to analyze digital data or evidence utilizing industry standards and best practices.

Digital Forensics Outcome 5
Digital Forensics graduates will have a foundation to manage basic corporate incident response challenges, as well as perform proper collection, archival and retrieval methodology for electronic data that may be subject to legal and regulatory requirements. Graduates will be knowledgeable in electronic discovery statutes, case law, and the management of corporate digital information.

Digital Forensics Outcome 6
Digital Forensics graduates will be prepared to compose and present oral and written reports, which outline digital forensic analysis findings. These reports are professionally and scientifically acceptable in corporate, administrative and legal proceedings.

Digital Forensics Outcome 7
Digital Forensics graduates will be knowledgeable in the development and implementation of corporate and government policies and procedures for computer forensic laboratory operations, quality control and training programs.

Digital Forensics Outcome 8
Digital Forensics graduates will be able to develop incident response, examination and analytical plans to guide the forensic investigation.

Digital Forensics Outcome 9
Digital Forensics graduates will be able to present digital forensics analysis findings, as well as provide expert witness testimony related to digital evidence (including how to deal with opposing counsel cross-examinations and how to effectively relay information to a judge and jury).

c) How does the program relate to the institution's and SUNY's mission and strategic goals and priorities? What is the program's importance to the institution, and its relationship to existing and/or projected programs and its

expected impact on them? As applicable, how does the program reflect diversity and/or international perspectives?

The proposed new undergraduate major in digital forensics coincides with many aspects of UAlbany's Strategic Plan and UAlbany Impact. This is a subject influenced by multiple disciplines and ties in several units across the University: Information Technology Management, Criminal Justice, and Accounting & Law. This program will increase undergraduate enrollments through the creation of a new undergraduate major that does not compete with nor detract from enrollment in other majors. This program will serve as the first SUNY program offering a bachelor's degree in digital forensics – ensuring a captive market in undergraduate education. Digital forensics jobs often require four-year degrees and current availability of programs has made this profession prohibitive to certain students in the past. Our use of distance delivery and innovative pedagogical practices also make it more feasible for students who come from lower socioeconomic or non-traditional backgrounds to more readily achieve success in their academic programs and future careers.

In addition to traditional UAlbany students from high schools, we plan to offer our program as part of executive education, internationally, and to community college students through articulation agreements with them. The Digital Forensics program will leverage internal resources at UAlbany and build collaborations with two-year community colleges in the surrounding area. This will create a pipeline of students from community colleges to our digital forensics program. By collaborating and developing strong partnerships with in-state community colleges as well as using innovative pedagogic methods, e.g. distance delivery, cloud-based labs, the program takes advantage of SUNY "systemness" to provide an opportunity for students who are limited by socioeconomic conditions to pursue a four-year degree in digital forensics.

The proposal will strengthen existing ties between several units in the University, build critical mass in this area, and increase external funding potential – where we have had a history of success. With these new hires, we hope to be able to offer programs that will significantly improve student recruitment and success.

The digital forensics program is well aligned with the *Power of SUNY Strategic Plan* that defines the future mission of the SUNY system as a whole. It is specifically matched up with three important objectives:

1. SUNY and Seamless Education Pipeline: The program is designed to facilitate the transfer of students from community colleges in New York to the UAlbany in the junior year of the digital forensics program. Articulation agreements are already being developed with these community colleges.
2. SUNY Works: SUNY Works promotes experiential learning, which is built into the design of our program. We have started working with private firms to build relations for our students to get internships. We will be co-developing curriculum with some of these organizations to align the course work to industry demands and make the students attractive for internships. These internships are intended to be supplemental to the academic program.
3. SUNY and the Entrepreneurial Century: Digital Forensics is one of the four key areas of UAlbany 2020 plan and our goal is to create a talented workforce and attract entrepreneurs in digital forensics to the business incubator that is being developed on campus.

The proposed B.S. in Digital Forensics qualifies as fulfilling *"Strategic Initiative 2: Emerging Technologies: Improving Human Efficiency through Computational and Forensic Sciences"* listed in UAlbany Impact.

In addition, this program is aligned with multiple values and goals listed in the UAlbany strategic plan. The offering of this program is fully in line with the values of excellence, access, collaboration, and engagement. This proposed program also embodies the following goals:

- "To enhance the quality of undergraduate education at UAlbany and attract and serve a highly qualified and diverse group of students"

- "To create an excellent student experience that integrates academic and co-curricular experiences, engages the surrounding community and the world, and fosters lifelong pride in the University"

- "To increase UAlbany's visibility in, and resources for, advancing and disseminating knowledge, discovery, and scholarship"

d) How were faculty involved in the program's design, and describe input by external partners, if any (e.g., employers and institutions offering further education?

Faculty in the Information Technology Management (ITM) department who will participate in the Digital Forensics B.S. were involved in the initial program design. One of the core faculty members developed the computer forensics lab for the New York State Police. In addition, the ITM department faculty and School of Business Undergraduate Affairs Committee reviewed and provided recommendations to the initial proposed program design. In addition, we have worked with several external partners. We worked closely with multiple community colleges in the region to develop the curriculum so we can develop programs where students can easily transfer credits from the 2-year institution to UAlbany. We have also consulted with digital forensics vendors (AccessData) and potential employers (e.g. Ernst Young, PricewaterhouseCoopers, KPMG). They provided advice related to course content, future employment and internship opportunities available and also expressed an interest in developing long-term collaboration in reviewing and evaluating the curriculum.

e) How did input, if any, from external partners (e.g., educational institutions and employers) or standards influence the program's design? If the program is designed to meet specialized accreditation or other external standards, such as the educational requirements in Commissioner's Regulations for the profession, append a side-by-side chart to show how the program's components meet those external standards. If SED's Office of the Professions requires a specialized form for the profession to which the proposed program leads, append a completed form at the end of this document.

The program was initially designed with the needs defined by potential employers. We worked with the community college partners in the initial stages of the program design. We reviewed the curriculum in these colleges for A.A., A.S., and A.A.S. degrees related to digital forensics and revised our curriculum to create a degree program which incorporated essential elements identified in these programs. The program incorporates a foundation of technical writing, social sciences, criminal justice, statistics, basic computing, networking, security, and digital forensics courses. Communicating with external industry collaborators has helped us define specific course content, advanced course topics, and focus for the curriculum, such as using strong data analytics to drive business needs for digital forensics.

We are in the process of soliciting senior professionals and executives in the area of digital forensics and information security to create an advisory board. The primary goal of the advisory board will be to review our curriculum, help students with internships and jobs, provide technical experts when necessary, raise funds for the program, and occasionally record lectures on specialized topics for our students. We are currently working with EY, KPMG, Access Data and Accenture for initial assessment of our curriculum. We will expand and formalize the board in the fall 2014 and with bylaws, roles, and responsibilities.

f) Enter anticipated enrollments for Years 1 through 5 in the table below. How were they determined, and what assumptions were used? What contingencies exist if anticipated enrollments are not achieved?

Year	Anticipated Headcount Enrollment			Estimated FTE
	Full-time	Part-time	Total	
1	0		0	0
2	60		60	60
3	106		106	106

4	130		130	130
5	130		130	130

The anticipated enrollment during the first year is uncertain based on approval of the new program. We are also working out credit transfers, formal articulation agreements, and community college program changes to make it easier for students to smoothly transition to our Digital Forensics B.S. We are offering some courses in the program currently to garner more interest in the program. However, we have had several community colleges, high schools, and students express interest in the program. Once the program is registered and therefore allows for recruitment, we believe that we will be able to ramp up enrollments steadily over the next five years. Enrollments represent the students enrolled during the Fall semester of the year. These enrollment targets are conservative, and should be able to be achieved easily especially with our community colleges relationships. If these enrollments are not achieved, we will put more efforts into innovative marketing and recruitment.

g) Outline all curricular requirements for the proposed program, including prerequisite, core, specialization (track, concentration), internship, capstone, and any other relevant component requirements, but do not list each General Education course.

Requirements for the B.S. in Digital Forensics
The B.S. program in Digital Forensics requires the completion of the following courses clustered in four categories:

1. '*Foundational Principles'* Courses.
   APSY101 Introduction to Psychology
   ASOC 115 Introduction to Sociology
   BACC 211 Financial Accounting
   BFOR 100 Introduction to Information Systems
   BITM 215 Information Technologies for Business
   RCRJ 201 Introduction to the Criminal Justice Process
   RCRJ 203 Criminology
   RCRJ 281 Introduction to Statistics in Criminal Justice

2. '*Core Competencies*' Courses
   RCRJ 202 Introduction to Law and Criminal Justice
   BFOR 203 Networking – Introduction to Communications
   BFOR 204 Fundamentals of Information and Cybersecurity
   BFOR 300 Databases for Digital Forensics
   BACC 400 Forensic Accounting and Fraud Detection

3. '*Concentrations*' Courses.
   BFOR 201 Introduction to Digital Forensics
   BFOR 202 Cyber Crime Investigation
   BFOR 301 Computer Forensics 1
   BFOR 302 eDiscovery
   BFOR 303 Computer Forensics 11
   BFOR 304 Network and Mobile Forensics
   BACC 401 Forensic Accounting Investigative Techniques

4. '*Capstone'* Courses
   BFOR 401W Advanced Digital Forensics
   BFOR 402 Digital Forensics Moot Court

h) Program Impact on SUNY and New York State

h)(1) ***Need:*** **What is the need for the proposed program in terms of the clientele it will serve and the educational and/or economic needs of the area and New York State? How was need determined? Why are similar programs, if any, not meeting the need?**

In the past, demand for professionals in this field primarily came from law enforcement agencies; today, the demand is largely coming from private-sector organizations and is being driven by business needs including: data recovery, electronic discovery, incident response, policy auditing and third-party forensic analysis services. According to the Bureau of Labor Statistics, jobs in Digital Forensics are expected to grow over 13.3% by 2016. The paucity of Digital Forensics programs provides us a captive audience of students who have few choices for advancing their skills. **We will be the first SUNY school that offers a bachelor's degree in Digital Forensics.**

h)(2) ***Employment:*** **For programs designed to prepare graduates for immediate employment, use the table below to list potential employers of graduates that have requested establishment of the program and state their specific number of positions needed. If letters from employers support the program, they may be appended at the end of this form.**

See Appendix 1

Employer	*Need: Projected positions*	
	In initial year	In fifth year
KPMG	25	35
Ernst Young	40	50
Accenture	15	25

h)(3) ***Similar Programs:*** **Use the table below to list similar programs at other institutions, public and independent, in the service area, region and state, as appropriate. Expand the table as needed.**

Institution	Program Title	Degree	Enrollment
Bloomsburg University	Digital Forensics	BS	180
Univ Michigan-Dearborn	Digital Forensics	BS	7 (began Fall '12)
Utica College	Cyber Security-Digital Forensics Conc	MS	78

h)(4) **C*ollaboration:*** **Did this program's design benefit from consultation with other SUNY campuses? If so, what was that consultation and its result?**

There were no SUNY comments in response to the Program Announcement. However, there have been numerous discussions with community colleges about seamless transition issues. Two articulations are attached to this proposal, with three others currently in progress.

h)(5) ***Concerns or Objections:*** **If concerns and/or objections were raised by other SUNY campuses, how were they resolved?**

N/A

h)(6) ***Undergraduate Transfer:*** **The State University views as one of its highest priorities the facilitation of transfer for undergraduate students. To demonstrate adequate planning for transfer under SUNY's student mobility policy, Section 9 of this form on SUNY Undergraduate Transfer must be completed for programs leading to Associate in Arts (A.A.) and Associate in Science (A.S.) and for baccalaureate programs anticipating transfer enrollment**.

2.4. Admissions

a) What are all admission requirements for students in this program? Please note those that differ from the institution's minimum admissions requirements and explain why they differ.

During the application period for traditional freshmen admission, an applicant interested in Digital Forensics and who meets the minimum established criteria will be offered an opportunity for direct freshman admission to the proposed digital forensics undergraduate major. The standard eligibility for consideration will be a minimum HSGPA of at least 89 and a minimum SAT of at least 1200 (1600 scale) and/or a minimum ACT of 25.

At the time of completion of 56 credits, a Direct Admit student must have a cumulative GPA of 3.0 in 7 designated courses (ASOC 115, AMAT 108, BACC 211, BFOR 100, BFOR 201, BFOR 202, BFOR 203).

In addition to this requirement, native freshmen not in the Direct Admit program and transfer students must also have earned a cumulative GPA of 3.25 upon completion of 56 credits.

b) What is the process for evaluating exceptions to those requirements?

The School of Business Undergraduate Committee on Academic Affairs hears admissions appeals from those students who fail to earn admission after the first two years. It will also entertain appeals from students seeking to transfer from a two-year institution whose academic record does not meet the minimum criteria

The committee's decision is then presented to the Director of the program. An official letter will be sent by the program Director or his designee to the student indicating the decision of the committee regarding the student's appeal to admission to the upper division status.

I. The review of the appeal would include, but is not limited to, the student's written appeal and any documentation supporting the student's contentions.
II. The committee can make one of three decisions.
    a. Admit the student
    b. Do not admit the student
    c. Place the student on a one semester academic contract for the Fall of the third year, where the student will be asked to achieve a certain semester grade point average and a certain average from the 300 level BFOR (Digital Forensics) courses.

c) How will the institution encourage enrollment in this program by persons from groups historically underrepresented in the institution, discipline or occupation?

The demographics for digital forensics may be more accurately represented by looking at the field of computer science. As shown in the table below, there are obvious deficits in several demographic groups with around 61% of students being Caucasian and around 8-11% being African-American, Asian/Pacific Islander or Other/Unknown, 3.3% being Hispanic, and 0% being Native American/Alaskan. For gender, the disparity is even more severe with around 90% of the population being male and just above 10% being female.

Table: Composition of Computer Science enrollment at UAlbany.

	Ethnicity						**Gender**	
Institution	**Caucasian (%)**	**African-American (%)**	**Hispanic (%)**	**Asian/ Pacific (%)**	**Native American /Alaskan(%)**	**Other/ Unknown (%)**	**M (%)**	**F (%)**
UAlbany	60.9	8.2	3.3	10.3	0	11.4	89.7	10.3

We believe a part of this disparity is a result of socioeconomic factors and program flexibility. By working with community colleges, we believe that we will make this program more accessible to underrepresented minorities that are traditionally associated with lower socioeconomic backgrounds. In addition, we believe that offering 2+2 programs with the option for the junior year being entirely online offers flexibility to students who may have trouble leaving their home communities due to work or personal commitments, e.g. armed services members and working mothers.

In recruiting, we will work closely with the Office of Access and Academic Enrichment (AAE) which oversees the campus Science & Technology Entry Program (STEP) and Collegiate Science & Technology Entry Program (CSTEP). AAE will assist in recruitment at the high school levels and at the undergraduate level locally at UAlbany in underrepresented populations. For recruiting high school students, it will facilitate program faculty involvement in activities, e.g. workshops at after-school programs, the state Multicultural High School Achievement Program awards ceremony, local community groups, parent days, and weekend presentation series where students at local schools are bused to the UAlbany campus to get exposed to academic topics. We will have innovative persuasion techniques such as showing a clip from a television crime show and then discussing the forensics aspects or forensic demonstration in the form of an entertaining skit. AAE will also work with us to organize and market career days and we plan to have an event called "CSI(Crime Scene Investigation): UAlbany" where we will discuss UAlbany's forensics program. AAE also offers a Summer Research Program supported by state grants where students are paired with a faculty member and work on a research project in a specific area for approximately 8 weeks. We would support a student in the area of digital forensics through this program. We will present forensics seminars at the brown bag seminars and provide shadowing days with faculty or industry professionals as well as work site visits and internships so that a student will become excited about the work that they might do after getting a degree in digital forensics.

2.5. Academic and Other Support Services

Summarize the academic advising and support services available to help students succeed in the program.

a. Students directly admitted to the Digital Forensics program will be advised in the first year by the Advisement Services Center. In their second year, the direct admit students will be advised by the Assistant Dean for Academic Programs and program faculty in the School of Business. At the conclusion of the second year, Digital Forensics students who move into upper division status will be advised by the well-established School of Business Office of Undergraduate Student Services, which has been functioning as the main advisement center for 40 years.
b. All undergraduate students have access to Advising PLUS, a program that provides academic support for specific courses and for general academic success.
c. Students admitted to upper division status from collaborating community colleges will receive advisement from the School of Business Office of Undergraduate Student Services.
d. All majors in this program will be encouraged to select a faculty mentor to discuss appropriate elective courses, as well as, various career opportunities and advance study in this field.

2.6. Prior Learning Assessment

If this program will grant credit based on Prior Learning Assessment, describe the methods of evaluating the learning and the maximum number of credits allowed, **or check here [x] if not applicable**.

2.7. Program Assessment and Improvement

Describe how this program's achievement of its objectives will be assessed, in accordance with *SUNY policy*, including the date of the program's initial assessment and the length (in years) of the assessment cycle. Explain plans for assessing achievement of students' learning outcomes during the program and success after completion of the

program.
Append at the end of this form, a plan or curriculum map showing the courses in which the program's educational and, if appropriate, career objectives – from Item 2.3(b) of this form – will be taught and assessed.

The School of Business participates in an accreditation review with The Association to Advance Collegiate Schools of Business (AACSB) on a 5 year cycle. The last review was in 2010; the next is scheduled for 2015. As a program within the School, Digital Forensics will be reviewed and assessed as part of this review.

The assessment for AACSB includes review of faculty performance (scholarly publications, presentation, and professional memberships and certification) as well as assessment of learning. The educational objectives defined in 2.3b will be used for evaluation of this program under this section. See learning outcomes plan – Appendix 2.

Section 3. Sample Program Schedule and Curriculum

Complete the **SUNY Undergraduate Sample Program Schedule** to show how a typical student may progress through the program. Either complete the blank Schedule that appears in this section, or complete an Excel equivalent that computes all sums for you, and can be found at http://www.suny.edu/provost/academic_affairs/app/forms.cfm. Terms 5-8 may be deleted for programs leading to associate's degrees.

SUNY Undergraduate Sample Program Schedule

Campus Name	**University at Albany**
Program/Track Title and Award	**Digital Forensics, B.S.**

	Semester	Quarter	Trimester	Other
Calendar Type	X			

SUNY Transfer Path Name (if one exists) <----- **Use Dropdown Arrow.**

Use the table to show **how a typical student may progress through the program. Check all columns that apply to a course or enter credits where applicable.**

KEY **Course Type: Required (R), Restricted Elective (RE), Free Elective (FE). Course Credits: Number of Credits for individual course (Enter number.) GER Area: SUNY General Education Requirement Area (Enter Area Abbreviation from the drop-down menu.) GER Credits: (Enter number of course credits.) LAS: Liberal Arts & Sciences Credits (Enter X if course is an LAS course.) Major: Major requirement (Enter X.) TPath: SUNY Transfer Path Major & Cognate Courses (Enter X.) Elective/Other: Electives or courses other than specified categories (Enter X.) Upper Div: Courses intended primarily for juniors and seniors outside of the major (Enter X.) Upper Div Major: Courses intended primarily for juniors and seniors within the major (Enter X.) New: new course (Enter X.) Co/Prerequisite(s): List co/prerequisite(s) for the noted courses. SUNY GER Area Abbreviations (the first five listed in order of their frequency of being required by SUNY campuses): Basic Communication (BC), Math (M), Natural Sciences (NS), Social Science (SS), Humanities (H), American History (AH), The Arts (AR), Other World Civilizations (OW), Western Civilization (WC), Foreign Language (FL).**

Fall 1:

Course Number & Title (& Type)	Number of Credits	GER Area	GE Credits	LAS	Major	Elective/Other	Upper Div	Upper Div Major	TPath	New Course	Co/Prerequisite
APSY 101 Intro to Psychology - R	3	SS	3	X	X						
BFOR 100 Intro to Information Systems - R	3				X					x	None
RCRJ 201 - Intro to the Criminal Justice Process - R	3	SS	3	X	X						
Natural Science Gen Ed	3	NS	3	X							
Humanities Gen Ed	3	H	3	X							
Term Totals	**15**	**4**	**12**	**12**	**9**					**1**	**(X)**

Spring 1:

Course Number & Title (& Type)	Number of Credits	GER Area	GE Credits	LAS	Major	Elective/Other	Upper Div	Upper Div Major	TPath	New Course	Co/Prerequisite
ASOC 115 Intro to Sociology - R	3	SS	3	X	X						
BFOR 201 Into to Digital Forensics - R	3				X						
RCRJ 203 Criminology - R	3	SS	3	X	X						
BFOR 203 Networking - Intro to Data Comm - R	3				X					x	
UUNI 110 - Writing and Critical Inquiry	3	BC	3	X							
Term Totals	**15**	**3**	**9**	**9**	**12**					**1**	**(X)**

Fall 2:

Course Number & Title (& Type)	Number of Credits	GER Area	GE Credits	LAS	Major	Elective /Other	Upper Div	Upper Div Major	TPath	New Course	Co/Prerequisite
BACC 211 Financial Accounting - R	3				X						
BFOR 202 Cyber Crime Investigations - R	3				X						
RCRJ 281 Intro to Statistics in Crim Justice - R	3	M	3	X	X						
US History Gen Ed	3	AH	3	X							
ARTs Gen Ed	3	AR	3	X							
Term Totals	**15**	**3**	**9**	**9**	**9**						**(X)**

Spring 2

Course Number & Title (& Type)	Number of Credits	GER Area	GE Credits	LAS	Major	Elective /Other	Upper Div	Upper Div Major	TPath	New Course	Co/Prerequisite
BITM 215 Information Technology for Business - R	3				X						
BFOR 204 Fund. of Information and Cyber Security - R	3				X					x	BFOR 100
RCRJ 202 Intro to Law and Criminal Justice - R	4			X	X						
International Perspectives Gen Ed	3	OW	3	X							
Foreign Language Gen Ed	3	FL	3	X							
Term Totals	**16**	**2**	**6**	**10**	**10**					**1**	**(X)**

Fall 3

Course Number & Title (& Type)	Number of Credits	GER Area	GE Credits	LAS	Major	Elective /Other	Upper Div	Upper Div Major	TPath	New Course	Co/Prerequisite
BFOR 300 Databases for Digital Forensics - R	3				X		X	X		x	BFOR 100
BFOR 301 Computer Forensics 1 - R	3				X		X	X		x	BFOR 201
BFOR 302 eDiscovery	3				X		X	X			

Forensics - R											
Elective, Liberal Arts	3			X							
Elective, Liberal Arts	3			X							
Term Totals	**15**			**6**	**9**		**9**	**9**		**2**	**(X)**

Spring 3

Course Number & Title (& Type)	**Number of Credits**	**GER Area**	**GE Credits**	**LAS**	**Major**	**Elective /Other**	**Upper Div**	**Upper Div Major**	**TPath**	**New Course**	**Co/Prerequisite**
BFOR 303 Computer Forensics II - R	3				X		X	X		x	BFOR 301
BFOR 304 Network and Mobile Forensics - R	3				X		X	X		x	BFOr 203 and 301
Challenges of the 21st Century Gen Ed	3			X							
Elective, Liberal Arts	3			X							
Elective, Upper Division Liberal Arts	3			X			3				
Term Totals	**15**			**9**	**6**		**9**	**6**		**2**	**(X)**

Fall 4

Course Number & Title (& Type)	**Number of Credits**	**GER Area**	**GE Credits**	**LAS**	**Major**	**Elective /Other**	**Upper Div**	**Upper Div Major**	**TPath**	**New Course**	**Co/Prerequisite**
BFOR 401W Advanced Digital Forensics - R	4				X		X	X		x	BFOR 302, 303, 304
BACC 400 Forensic Accounting and Fraud Detection - R	3				X		X	X		x	BACC 211
Elective, Upper Division	3						X				
Elective, Upper Division Liberal Arts	3			X			X				
Elective, Upper Division Liberal Arts	3			X			X				
Term Totals	**16**			**6**	**7**		**16**	**7**		**2**	**(X)**

Spring 4

Course Number & Title (& Type)	**Number of Credits**	**GER Area**	**GE Credits**	**LAS**	**Major**	**Elective /Other**	**Upper Div**	**Upper Div Major**	**TPath**	**New Course**	**Co/Prerequisite**
BFOR 402 Digital	4				X		X	X		x	BFOR 302,

Forensics Moot Court - R											303, 304 and 401
BACC 401 Forens Acct Investigative Techniques - R	3				X		X	X		x	BACC 400
Elective, Upper Division	3						X				
Elective, Upper Division	3						X				
Term Totals	**13**				**7**		**13**	**7**		**2**	**(X)**

Program Total Summary

Total Credits	SUNY GER Areas	SUNY GER Credits	Liberal Arts & Sciences Credits	Major Credits	Elective and Other Credits	Upper Division Credits	Upper Division Major Credits	Total TP ath Courses	New Courses
120	**9**	**36**	**61**	**69**		**47**	**29**		**11**

GER Area Summary

	Basic Communication (BC)	**1**	**The Arts (AR)**	**1**
	Mathematics (M)	**1**	**American History (AH)**	**1**
	Natural Sciences (NS)	**1**	**Western Civilization (WC)**	
	Social Sciences (SS)	**4**	**Other World Civilizations (OW)**	**1**
	Humanities (H)	**1**	**Foreign Language (FL)**	**1**

a) If the program will be offered through a nontraditional schedule (i.e., not on a semester calendar), what is the schedule and how does it impact financial aid eligibility? ***NOTE: Consult with your campus financial aid administrator for information about nontraditional schedules and financial aid eligibility.***

Not applicable.

b) For each existing course that is part of the proposed undergraduate major (including cognates and restricted electives, but not including general education), append a catalog description at the end of this document,.

See appendix 3

c)For each new course in the undergraduate program, append a syllabus at the end of this document. 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 appendix 4

d) If the program requires external instruction, such as clinical or field experience, agency placement, an internship, fieldwork, or cooperative education, append a completed External Instruction form at the end of this document.

Not applicable

Section 4. Faculty

a) Complete the SUNY Faculty Table on the next page to describe current faculty and to-be-hired (TBH) faculty.

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

See appendix 5

NOTE: *CVs for all faculty should be available upon request. Faculty CVs should include rank and employment status, educational and employment background, professional affiliations and activities, important awards and recognition, publications (noting refereed journal articles), and brief descriptions of research and other externally funded projects. New York State's requirements for faculty qualifications are in Part 55.2(b) of the Regulations of the Commissioner of Education.*

c) What is the institution's definition of "full-time" faculty?

A full time faculty member is one who holds an appointment with a 100% time commitment.

SUNY Faculty Table

Provide information on current and prospective faculty members (identifying those at off-campus locations) who will be expected to teach any course in the major. Expand the table as needed. Use a separate Faculty Table for each institution if the program is a multi-institution program.

(a)	(b)	(c)	(d)	(e)	(f)
Faculty Member Name and Title/Rank (Include and identify Program Director with an asterisk.)	**% 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, licenses and professional experience in field.**
PART 1. Full-Time Faculty					
Fabio R. Auffant II, Lecturer	100%	BFOR 201, BFOR 202, BFOR 301, BFOR 302, BFOR 303, BFOR 304, BFOR 401W, BFOR 402	M.S. Digital Forensics Management, Champlain College; B.S. Organizational Management, Nyack College; A.A.S. Architectural Engineering, State University of New York, Delhi	Digital Forensics	Conducted hundreds of Criminal Investigations involving Federal, State and Local laws (+27 years); Provided Court Testimony in Federal, State and Local court proceedings in NY State (+27 years); Certified Digital Forensics Examiner in hundreds of digital forensic examinations (+13 years); Extensive experience with digital forensics hardware and software tools (+13 years); Prepared & Executed Search Warrants for Search and Seizure of electronic evidence (+13 years); Development & Implementation of policy & procedures, in pursuit of lab accreditation (+13 years); Lecturer at private, public and academic sector seminars, workshops and conferences (+10 years); Engaged in research & preparation of grant proposals and delivery of grant objectives (+10 years); Curriculum Development & Instruction at Law Enforcement & Academic institutions (+7 years); Management of Field and Headquarters Digital Forensics Laboratories (+6 years); Internal and External Training Coordination of Computer Crime Unit personnel (+6 years); Auditing, self-assessments and inspections of State Police, lab & forensic operations (+6 years); Active participant in Digital Evidence & Quality Assurance Technical Work Groups (+6 years); Quality Control Management of Field and Headquarters Digital Forensics Laboratories (+3 years)
Sanjay Goel*, Associate Professor. Program Director	50%	BFOR 401W	Ph.D. Mechanical Engineering, Rensselaer Polytechnic Institute; M.S. Mechanical Engineering, Rutgers University; B.S. Mechanical	Mechanical Engineering	Founded and served as general chair for the ICST Conference on Digital Forensics and Cyber Crime in 2009 and have continued to be a part of the conference's steering committee. The conferences co-sponsors included the NYS Department of Criminal Justice Services. It topics cover traditional computer and information security concerns (i.e. Internet Crimes against Children), as well as money laundering and

(a)	(b)	(c)	(d)	(e)	(f)
Faculty Member Name and Title/Rank (Include and identify Program Director with an asterisk.)	**% 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, licenses and professional experience in field.**
			Engineering, Indian Institute of Technology, New Delhi		accounting fraud detection (both of which have become increasingly electronic). The tracks cover multimedia and handheld device forensics as well as forensics and law; Working with Bauman Moscow State Technical University on creating joint Information Security Expanded earlier curriculum developed in Information Security and Computer Forensics and began initial assessment related to cloud-computing for information security labs; Developed an Information Security Certificate program at the University at Albany. The program is designed to fill workforce needs for practice in the area of information assurance; Worked on the development of a "Teaching Hospital" concept for Information Assurance education at the University at Albany so that real-life incidents from New York State agencies and private enterprise can be abstracted into teaching cases for the students. Used such cases in Risk Analysis and Security Policy curriculum. In addition, cases are integrated into distance-delivery courses.
Yuan Hong, Assistant Professor	100%	BACC 400, BACC 401, BFOR 100, BFOR 201, BFOR 202, BFOR 203, BFOR 204, BFOR 300	Ph.D. Information Technology, Rutgers University; M.Sc. Computer Science, Concordia University; B.Ss. Management Information Systems	Information Technology	Memberships: Association for Computing Machinery (ACM), Institute of Electrical and Electronics Engineers (IEEE), Institute for Operations Research and the Management Sciences (INFORMS), Association for Information Systems (AIS), International Federation for Information Processing (IFIP), ACM Special Interest Group on Security, Audit and Control (SIGSAC), AIS Special Interest Group on Information Security and Privacy (SIGSEC)
Part 2. Part-Time Faculty					

(a)	(b)	(c)	(d)	(e)	(f)
Faculty Member Name and Title/Rank (Include and identify Program Director with an asterisk.)	**% 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, licenses and professional experience in field.**
Part 3. Faculty To-Be-Hired (List as TBH1, TBH2, etc., and provide title/rank and expected hiring date.)					
TBH1, Assistant Professor (Fall 2014), shared with School of Criminal Justice	100%	BFOR 201, BFOR 202, BFOR 302, BFOR 402			
TBH2, Assistant Professor (Fall 2014)	100%	BFOR 100 BFOR 201, BFOR 202, BFOR 203, BFOR 204, BFOR 300, BFOR 301, BFOR 303, BFOR 304, BFOR 401W			
TBH3, Assistant Professor (Fall 2015), shared with Department of Political Science	100%	BFOR 100, BFOR 203, BFOR 204, BFOR 304			
TBH4, Assistant Professor (Fall 2015), shared with Department of Computer Science	100%	BFOR 100, BFOR 201, BFOR 203, BFOR 204, BFOR 300, BFOR 301, BFOR 401W			

Section 5. Financial Resources and Instructional Facilities

a) What is the resource plan for ensuring the success of the proposed program over time? Summarize the instructional facilities and equipment committed to ensure the success of the program. Please explain new and/or reallocated resources over the first five years for operations, including faculty and other personnel, the library, equipment, laboratories, and supplies. Also include resources for capital projects and other expenses.

RESOURCE PLAN

Laboratories, Classroom, and Student Facilities:

The Digital Forensics program will be housed in the new School of Business building. This building hosts 28 state-of-the-art classrooms in which the bulk of the major courses will be taught, 10 group study rooms, 9 open space areas, 5 conference rooms and a café that students and partners can use. There is space available in this building for future faculty hires.

Digital Forensics has a two- room dedicated center where multidisciplinary researchers, practitioners, and students can collaborate to investigate and demonstrate real-world problems related to complex systems, information security, and digital forensics. The outer-facing room features a flat-screen television with multimedia hookups for viewing presentations or web conferencing. It also includes a small conference table that can seat up to 8 people with its own telephone for conference call facilitation and is ideal for research meetings. The inner room serves as the main area for research. The entrance to the room is controlled by key-card access and is not viewable to outside observers. Each workspace has a whiteboard as well as its own high-powered workstation. Furnishings also include lounge chairs a small round table for informal meetings or project work. The lab is equipped with its own network closet that can be used to configure and control its internal network. It is connected to the UAlbany network through a router that will allow the network of the lab to be isolated from the rest of the University network. This is important to ensure that security research experiments do not accidentally affect University computers. A firewall and intrusion detection system provide additional security.

Instructional Facilities and Equipment: We also have a computing laboratory dedicated for education and training that can accommodate up to 24 students at a time, which features cable flooring and cable and power boxes evenly distributed throughout the center of the room for computer inputs. The classroom will have full AV system for presentations. The computing laboratory also features whiteboards, moveable furniture to allow changeable classroom configurations and lockable cabinets to store "evidence." The lab will hold 12 workstations for analysis as well as laptops for mobile digital forensics analysis. In addition, it will also hold older computer equipment for forensic analysis, collection, preservation, and examination. We already have the desktops and servers required for the laboratory using the budget allocation from the School of Business. We will add dual-boot laptops next year based on funding from the School of Business. Each year we will need money for software ($6000) and other supplies ($500).

Faculty & Staff Allocated to the Program: As a part of the UAlbany SUNY2020 proposal process, we were allocated 6 faculty lines to the program. In addition, the director of the program, Sanjay Goel is 50% dedicated to the program. In the Fall 2013 year, Fabio R. Auffant II was hired as a lecturer in Information Technology Management for the program. He had been the head of the computer crime unit at the New York State Police. He has worked with us on curriculum development for the past several years as a part of grant-funded projects and would be valuable asset to the University. Yuan Hong, a tenure-track assistant professor in Information Technology Management / Accounting was also hired. He is responsible for participating in grant activities and curriculum development, specifically classes related to forensic auditing. Hires for the next year include a tenure-track assistant professor for ITM who would participate actively in program administration, grant

activities, and curriculum and lab development in Digital Forensics. In addition a tenure-track assistant professor shared with Criminal Justice who would work on curriculum development and grant activities, in particular, the individual will offer and develop a digital moot court class. In Fall 2015, we will hire a shared hire with ITM and the Political Science and Computer Science departments who will responsible for grant activities and curriculum development specifically related to elective offerings in their respective fields. The tenure-track assistant professor with Political Science and would be involved in the Cyber International Relations area working with cyber warfare. The tenure-track assistant professor with Computer Science would work on expanding offerings in the area of image forensics that would be a part of our graduate offerings in the future. As the program matures, additional faculty may be hired including both part-time and full-time faculty to accommodate additional sections or courses.

Estimated Graduate Student or Staff-Support: We anticipate that graduate student support will be provided through grant funding and that the current staff from respective departments will be distributed accordingly to support the program and faculty. We expect to utilize staff resources available to the departments, schools, and university (e.g. secretarial, student services, career services).

Faculty Offices and Support: We will be able to provide lab / office space and research support from within our existing facilities in the new School of Business Building.

Technology, Software, Supply Needs: The School of Business will be able to provide computing equipment that is necessary to support the faculty. Software and some associated hardware costs for teaching the Digital Forensics program need to be considered. To lessen the cost, we are currently working with Information Technology Services on cloud computing solutions in order to purchase fewer licenses. We are also beginning innovative partnerships with technology and courseware providers in order to develop relationships that will provide mutual benefit to provide cloud computing lab environments for students with the needed software. We are also working with industry partners to obtain free software license donations and are working with regional community colleges to amortize costs of software purchases. If need be, we will investigate the possibility of charging a small lab fee to students who participate in program courses. We have also been granted external funding from NSF and are looking for additional sources for funding to partially support this program. We will use internal resources to procure forensics software for the classes. Where possible we will use the educational discounts on the software.

Library Needs: The library currently has access to journals and databases that support the digital forensics program. As the field matures, it may be necessary to revise the journal and database subscriptions. There are three publications that the University Libraries specified would be beneficial to the program, so they will be added.

- International Journal of Digital Crime and Forensics - $625
- Journal of Digital Forensic Practice - $344
- Encyclopedia of Forensic Sciences (2nd edition, 2013) $2,887.50

b) Complete the five-year SUNY Program Expenses Table, below, consistent with the resource plan summary. Enter the anticipated academic years in the top row of this table. List all resources that will be engaged specifically as a result of the proposed program (e.g., a new faculty position or additional library resources). If they represent a continuing cost, new resources for a given year should be included in the subsequent year(s), with adjustments for inflation or negotiated compensation. Include explanatory notes as needed.

SUNY Program Expenses Table

(OPTION: You can paste an Excel version of this schedule AFTER this sentence, and delete the table below.)

Program Expense Categories	Expenses (in dollars)					
	Before Start	**Academic Year 1:**	**Academic Year 2:**	**Academic Year 3:**	**Academic Year 4:**	**Academic Year 5:**
(a) Personnel (including faculty and all others)	$180,000	$358,000	$543,000	$543,000	$543,000	$543,000
(b) Library		$ 3856.50	$ 959	$ 959	$ 959	$ 959
(c) Equipment	$ 30,000	$ 15,000			$ 12,000	$ 25,000
(d) Laboratories		$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000
(e) Supplies		$ 500	$ 500	$ 500	$ 500	$ 500
(f) Capital Expenses						
(g) Other (Specify):						
(h) Sum of Rows Above	**$210,000**	**$383,356.50**	**$550,500**	**$549,459**	**$562,459**	**$575,459**

Section 6. Library Resources

a) Summarize the analysis of library collection resources and needs *for this program* by the collection librarian and program faculty. Include an assessment of existing library resources and accessibility to those resources for students enrolled in the program in all formats, including the institution's implementation of SUNY Connect, the SUNY-wide electronic library program.

Introduction

The University Libraries collect, house, and provide access to all types of published materials in support of the research and teaching of the schools, colleges, and academic departments of the University. This evaluation considers those portions of the libraries' collections and services that support a program in Digital Forensics.

Library Collections

The University Libraries are among the top 115 research libraries in the country. The University

Library, the Science Library, and the Dewey Graduate Library contain more than two million volumes and over 2.8 million microforms. The Libraries subscribe or provide access to over 75,000 serials. Many thousands more are made available via subscriptions to full-text databases. Whenever possible, current subscriptions are available electronically. Additionally, the Libraries serve as a selective depository for U.S. Government publications and house collections of software and media.

Books

Because of the cross disciplinary nature of Digital Forensics, it is difficult to provide a precise count of the books in the library collection that would support this program. We estimate there are well over 20,000 books in those portions of the Library of Congress (LC) classification scheme which relate to computer science; 2000 which relate to information technology management; the number related to the legal perspective may number less than 100.
Unlike other disciplines, we have been unable to locate an authoritative bibliography for digital forensics in the library science literature. However, using Computer Science as a proxy, the University Libraries book holdings were compared to the listing in the "Computing" chapter in *RCL: Resources for College Libraries* (volume 5: *Science and Technology*) on pages 335 to 349 (Chicago: American Library Association, 2007). This study showed that the University Libraries have 180 of 231 (77.9%) of the books listed, which indicates a strong collection for the technical perspective. We may need to acquire more titles with a legal or ITM perspective. This would require additional funding, or reduction in support of other areas.

Journals

To evaluate the strength of the journal holdings in digital forensics, we used computer science as a proxy. The University Libraries journal holdings were compared to the "Computer Science, Theory & Methods" listing on pages 97 to 98 in the 2007 *Journal Citation Reports (Science Edition).* The study found that the University Libraries owns or provides access to 48 of 79 (60.8%) of the journals listed. Despite the cancellation of several computer science journals during the last fifteen years, we conclude that the journal collection is reasonably strong.

Access provided through the library:

- Digital Investigation (Open Access from ScienceDirect)
- Forensic Science Communications (FBI)
- Forensic Science International
- IEEE Transactions on Information Forensics and Security
- International Journal of Cyber-Security and Digital Forensics (Open access)
- International Journal of Forensic Computer Science (Open access)
- International Journal of Legal Medicine
- Journal of Digital Forensics, Security and Law
- Journal of Forensic and Legal Medicine
- Journal of Forensic Sciences
- Open Forensic Science Journal
- Open Forensic Science Journal (Open access)
- Science and Justice
- Small Scale Digital Device Forensic Journal (Open Access)

Not subscribed (should be added if funding is available)
• International Journal of Digital Crime and Forensics - $625
• Journal of Digital Forensic Practice - $344

Databases & Digital Collections with Digital Forensics Content
• Academic Search Complete
• ACM Digital Library
• Business Source Complete
• Criminal Justice Abstracts
• Criminal Justice Periodicals Index
• Emerald 120.
• IEEE Computer Society Digital Library
• Inspec
• LexisNexis Academic
• PAIS Gallerywatch CRS
• Proquest Congressional
• Public Administration Abstracts
• Safari Tech Books Online
• Scopus
• Springer Computer Science eBook Collection
• SpringerLink
• Westlaw Campus
• Wiley Online Library.
• Worldwide Political Science Abstracts

Reference Collection
The reference section of the Science Library houses a collection of resources in support of the science and mathematics programs. Numerous reference books related to computer science are available; this includes titles such as:
• Collins Dictionary of Computing,
• Concise Encyclopedia of Computer Science,
• Dictionary of Multimedia and Internet Applications,
• Encyclopedia of Computer Science**,**
• Encyclopedia of Data Warehousing and Mining,
• Encyclopedia of Forensic Sciences
• Focal Dictionary of Communications
• Forensic Science Handbook
• Forensic Services Directory,
• Guide to Information Sources in the Forensic Sciences.
• International Biographical Dictionary of Computer Pioneers
• Oxford Dictionary of Computing.
• Webster's New World Computer Dictionary

We believe the following should be added to support the digital forensics program:
• Encyclopedia of Forensic Sciences (2nd edition, 2013) $2,887.50

Interlibrary Loan and Delivery Services
The University Libraries' Interlibrary Loan (ILL) Department borrows books and microforms, and obtains digital copies of journal articles and other materials not owned by the Libraries from sources locally, state-wide, nationally, and internationally. ILL services are available at no cost to the user for faculty, staff, and students currently enrolled at the University at Albany.

Access to Research Collections
Library memberships provide access to many other libraries in the Capital District region, in New York State, and throughout the United States and Canada. In the Capital District, the Capital District Library Council (CDLC) sponsors the Direct Access Program (DAP). Upon presentation of a CDLC DAP card, students and faculty may borrow from or use 47 academic, public, law, medical, and technical libraries, including the Rensselaer Polytechnic Institute Libraries. Students and faculty may also use the collections of the New York State Library. Statewide, students and faculty may use and borrow materials from most of the SUNY-affiliated institutions.

US Government Information
In addition to purchased information, the library is a natural portal to US Government information. Below is a list of resources the library could make available to students in this program:
• Handbook of Forensic Services - Published by the Federal Bureau of Investigation Laboratory Division
• Homeland Security Digital Library - From the Department of Homeland Security
• In the Spotlight: Forensic Science: Publications - From NCJRS, the National Criminal Justice Reference Service
• NCJRS Publications/Products - From the National Criminal Justice Reference Service
• NIJ Publication Collections - From the National Institute of Justice

Summary and Conclusions
The University Libraries are making a considerable financial commitment to build and maintain collections in support of the primary areas associated with digital forensics: computer science, criminal justice, and information technology management. The studies conducted for this report indicate strong and reasonably strong book and journal collections. Books and journal articles not owned by the University Libraries may be obtained through interlibrary loan.

b)Describe the institution's response to identified collection needs and its plan for library development.

The budget for the program has accommodated the Library's recommendation, and the three specific resources that were recommended will be added.

Section 7. External Evaluation

SUNY requires external evaluation of all proposed bachelor's degree programs, and may request an evaluation for a proposed associate degree or certificate program in a new or emerging field or for other reasons.

Is an external evaluation required? [ ] No [X] Yes

If yes, list below all SUNY-approved evaluators who conducted evaluations (adding rows as needed), and submit a separate electronic document to accompany this form that contains each original, signed *External Evaluation Report* as well as the single *Institutional Response* to all reports, as described in Section 8. *NOTE: To select external evaluators, a campus sends 3-5 proposed evaluators' names, titles and CVs to the assigned SUNY Program Reviewer, expresses its preferences and requests approval.*

Evaluator #1	**Evaluator #2**
Name: Gary Kessler	Name: Peter Stephenson
Title: Associate Professor	Title: Associate Professor
Institution: Embry-Riddle Aeronautical University	Institution: Norwich University

Section 8. Institutional Response to External Evaluator Reports

As applicable, send a single *Institutional Response* to all *External Evaluation Reports* in the same file that contains the verbatim, signed *External Evaluation Reports*.

Section 9. SUNY Undergraduate Transfer

The State University views as one of its highest priorities the facilitation of transfer.

a) For a **proposed baccalaureate program,** document articulation with at least two parallel SUNY associate degree programs for seamless transfer, by **appending documentation of articulation**, such as *SUNY Transfer Course Equivalency Tables* and/or letters of support from Chief Academic Officers at associate degree institutions or their designees. **If transfer does not apply to this program, please explain why.**

Associate Degree Institution	Associate Program SED Code and Title	Degree
Tompkins Cortland Community College	22889, Computer Forensics	AAS
Hudson Valley Community College	30084, Computer Information Systems	AS

NOTE: *Transfer course equivalency tables are needed, despite SUNY Transfer Paths, to ensure that all courses in an A.A. or A.S. program will be accepted for transfer. Official SED program titles and codes can be found on NYSED's Inventory of Registered Programs at http://www.nysed.gov/heds/IRPSL1.html.*

Section 10. Application for Distance Education

a) Does the program's design enable students to complete 50% or more of the course requirements through distance education? [x] No [ ] Yes. If yes, append a completed *SUNY Distance Education Format Proposal* at the end of this proposal to apply for the program to be registered for the distance education format.

b) Does the program's design enable students to complete 100% of the course requirements through distance education? [x] No [ ] Yes

Section MPA-1. Need for Master Plan Amendment and/or Degree Authorization

a) Based on Guidance on Master Plan Amendments, please indicate if this proposal requires a Master Plan Amendment.

[x] No [ ] Yes, a completed *Master Plan Amendment Form* is **appended** at the end of this proposal.

b) Based on *SUNY Guidance on Degree Authorizations* (below), please indicate if this proposal requires degree authorization.

[x] No [ ] Yes, once the program is approved by the SUNY Provost, the campus will work with its Campus Reviewer to draft a resolution that the SUNY Chancellor will recommend to the SUNY Board of Trustees.

SUNY Guidance on Degree Authorization

Degree authorization is required when a proposed program will lead to a new degree (e.g., B.F.A., M.P.H.) at an existing level of study (i.e., associate, baccalaureate, first-professional, master's, and doctoral) in an existing disciplinary area at an institution. Disciplinary areas are defined by the New York State Taxonomy of Academic Programs. Degree authorization requires approval by the SUNY Provost, the SUNY Board of Trustees and the Board of Regents.

List of Appended and/or Accompanying Items

a) Appended Items: If materials required in selected items in Sections 1 through 4 and Sections 9, 10 and MPA-1 of this form apply to this proposal, they should be appended as part of this document, after this page, with continued pagination. In the first column of the chart below, please number the appended items, and append them in number order.

Number	Appended Items	Reference Items
	For multi-institution programs, a letter of approval from partner institution(s)	Section 1, Item (e)
	For programs leading to professional licensure, a side-by-side chart showing how the program's components meet the requirements of specialized accreditation, Commissioner's Regulations for the profession, or other applicable external standards	Section 2.3, Item (e)
	For programs leading to licensure in selected professions for which the SED Office of Professions (OP) requires a specialized form, a completed version of that form	Section 2.3, Item (e)
1	*OPTIONAL: For programs leading directly to employment*, letters of support from employers, if available	Section 2, Item 2.3 (h)(2)
2	***For all programs*, a plan or curriculum map showing the courses in which the program's educational and (if appropriate) career objectives will be taught and assessed**	Section 2, Item 7
3	*For all programs*, a catalog description for each existing course that is part of the proposed undergraduate major (including cognates and restricted electives)	Section 3, Item (b)
4	*For all programs with new courses in the major*, syllabi for all new courses in a proposed undergraduate major	Section 3, Item (c)
	For programs requiring external instruction, a completed *External Instruction Form* and documentation required on that form	Section 3, Item (d)
5	*For programs that will depend on new faculty*, position descriptions or announcements for faculty to-be-hired	Section 4, Item (b)
6	*For all A.A. and A.S. programs*, Transfer Equivalency Tables and letters of support from at least two SUNY baccalaureate institutions; *for baccalaureate programs that anticipate transfer student enrollment*, documentation of seamless transfer with at least two SUNY two-year programs	Section 9
	For programs designed to enable students to complete at least 50% of the course requirements at a distance, a *Distance Education Format Proposal*	Section 10
	For programs requiring an MPA, a *Master Plan Amendment Form*	Section MPA-1

b) Accompanying Items - External Evaluations and Institutional Response: If Sections 7 and 8 of this form indicate that external evaluation is required as part of this proposal, please send a separate electronic document to program.review@suny.edu that contains the original, signed *External Evaluation Reports* and a single *Institutional Response* to all reports. The file name should indicate the campus, program title, award and content of the file (e.g., BuffaloU-English-PhD-ExEval).

Appendix 1

Employer letter

Accenture LLP
Two Commerce Square ◦ Suite 2400
2001 Market Street ◦ Philadelphia, PA 19103
Tel: (267) 216-1000 ◦ Fax: (267) 216-0100
accenture.com

December 12, 2013

Dr. Donald S. Siegel
Dean and Professor, School of Business
University at Albany, State University of New York
1400 Washington Ave.
Albany, NY 12222

Dear Dean Siegel:

I met with Professor Sanjay Goel, the Chair of the ITM Department and Bill Roller, the Director of Development for the School of Business and I am very pleased with the innovation taking place at the School.

I am especially pleased to learn about the new Digital Forensics major being established in the School of Business. As you know, Accenture is a consulting firm in the area of digital business. Our business at Accenture is centered around SMAC: Social, Mobile, Analytics and Cloud Computing. As such, we are deeply involved in data analytics for many of our client's businesses.

The training provided in the Digital Forensics major could lead to very strong candidates for recruitment by Accenture. In the past, UAlbany used to be a major hiring school for Accenture, however, it was dropped from our list as hiring decreased in North America and grew internationally. Assuming the success of this new program, we will consider putting UAlbany back into our recruitment circuit in some manner. Right now, we are growing at a steady pace and we could expect to hire several students coming out of this program each year, assuming they met our qualifications. We are also willing to work with the School in helping review the curriculum and keeping it relevant and up-to-date in this fast-changing environment.

As a UAlbany School of Business alumnus ('86), I am really proud to see such innovative programs developed at my alma mater. I hope to be able to come by and see the fourth most beautiful business school in the world and discuss our collaboration sometime soon. Best of luck with the new program.

Sincerely,

Larry Solomon
North America Operating Officer, Accenture

Appendix 2

Program Assessment and Improvement

At the current time, the program will be evaluated as a part of The Association to Advance Collegiate Schools of Business (AACSB) Continuous Improvement Review process. This process is undertaken every five years after the previous review in order for accreditation to be extended. The last reassessment was performed in 2010 and the next time it is scheduled is 2015. Any new degree programs introduced after an accreditation cycle are considered accredited until the next assessment cycle allows for a review of the program.

The assessment for AACSB includes review of faculty performance (scholarly publications, presentations, and professional memberships and certifications) as well as assessment of learning. The educational objectives defined below will be used for evaluation of this program under this section. The outcomes for the program and the course objectives where these outcomes will be measured, the course objectives descriptions, and how they will be assessed are detailed below.

Learning Outcomes for B.S. Program in Digital Forensics

The learning outcomes are designed to ensure that the graduates of the program demonstrate the technical and professional proficiencies necessary to enable the forensic identification, investigation, collection and examination of digital and multimedia information or evidence; and, as a result, become highly successful analysts, educators, and leaders in global and technological "innovation" of the 21st century. The associated learning objectives where these outcomes will be assessed are defined below.

Digital Forensics Outcome 1

Digital Forensics graduates will be prepared to conduct cyber-crime investigations involving computers and the Internet, while utilizing investigative methodology, legal processes and forensic techniques that facilitate such investigations in public and private sectors.

Associated Learning Objectives: BFOR 202 E, F; BFOR 201A

Digital Forensics Outcome 2

Digital Forensics graduates will be knowledgeable in forensic concepts, binary and hexadecimal values, hardware and software essentials, as well as, forensic analysis techniques and methodology involving digital and multimedia data or evidence.

Associated Learning Objectives: BFOR 201 B, C

Digital Forensics Outcome 3

Digital Forensics graduates will have the ability to utilize proper techniques for collecting and preserving digital information and data found in the cloud, as well as, physical cyber-crime scenes. Graduates will be able to collect, preserve, and examine "live" networks and mobile devices, such as smartphones, tablets, gaming consoles and other relevant "live" networked data that may be critical to an investigation.

Associated Learning Objectives: BFOR 202 G, H; BFOR 304 W; BFOR 401W BB

Digital Forensics Outcome 4

Digital Forensics graduates will have the ability to conduct forensic analysis of binary data found in computers, removable media, and other electronic devices through hands-on experience with

digital forensics utilities, tools and techniques to analyze digital data or evidence utilizing industry standards and best practices.

Associated Learning Objectives: BFOR 301 J, K; BFOR 303R; BFOR 401W BB

Digital Forensics Outcome 5
Digital Forensics graduates will have a foundation to manage basic corporate incident response challenges, as well as perform proper collection, archival and retrieval methodology for electronic data that may be subject to legal and regulatory requirements. Graduates will be knowledgeable in electronic discovery statutes, case law, and the management of corporate digital information.

Associated Learning Objectives: BFOR 301 I; BFOR 302 M, N, P; BFOR 303 S; BFOR 304 V

Digital Forensics Outcome 6
Digital Forensics graduates will be prepared to compose and present oral and written reports, which outline digital forensic analysis findings. These reports are professionally and scientifically acceptable in corporate, administrative and legal proceedings.

Associated Learning Objectives: BFOR 302 O; BFOR 303 T; BFOR 401W CC

Digital Forensics Outcome 7
Digital Forensics graduates will be knowledgeable in the development and implementation of corporate and government policies and procedures for computer forensic laboratory operations, quality control and training programs.

Associated Learning Objectives: BFOR 304 X; BFOR 401W AA

Digital Forensics Outcome 8
Digital Forensics graduates will be able to develop incident response, examination and analytical plans to guide the forensic investigation.

Associated Learning Objectives: BFOR 401W AA; BFOR 304 X

Digital Forensics Outcome 9
Digital Forensics graduates will be able to present digital forensics analysis findings, as well as provide expert witness testimony related to digital evidence (including how to deal with opposing counsel cross-examinations and how to effectively relay information to a judge and jury).

Associated Learning Objectives: BFOR 401W DD, EE; BFOR 402 FF, GG, HH, II, JJ

Success of meeting student outcomes after the program will be established by hiring rates, positions and salary ranges of graduates, employer input related to satisfaction and required training time with hired graduates, number of labs established, number and type of policies created, number of cases worked on, number of expert witness testimonies given.

ASSOCIATED LEARNING OBJECTIVES LIST & ASSESSMENT

BFOR201 - LEARNING OBJECTIVES

After completing this class the student should be able to:

A. Describe how to secure and process an incident or crime scene involving digital evidence.
B. Define computer forensics analysis concepts, tools and techniques
C. Identify hardware & software tools utilized during forensic examinations of digital evidence.
D. Complete professional forms and reports associated with Digital Forensic investigations

BFOR201 – LEARNING GOALS & STUDENT ASSESSMENTS

A. Student's skill will be assessed on the ability to forensically process a "mock" incident/crime scene and secure relevant digital evidence using learned methodology. Student will be assessed through the direct observation of instructor. (*Lab Exercise Rubric*).
B. Student's knowledge will be assessed through quizzes and examinations with questions related to learned concepts, tools and techniques. (*true/false, multiple---choice, matching, short answer, and/or essay questions*)
C. Student's knowledge and skill will be assessed through the use of written and task---oriented assignments developed assess student's knowledge of learned terminology, such as computer hardware nomenclature, as well as hands---on lab exercises, such as basic computer hardware/software skills and forensic hardware write---blocking devices, (*Computer Skills, Assignment, & Lab Exercise Rubrics*).
D. Student 's disposition will be assessed on the ability to properly complete necessary documentation associated with digital forensics investigations, such as reports and forms, as well as incident/crime scene diagrams, photos, sketches and notes. Said documentation is to be completed by student and assessed during the completion of course assignments and lab exercises (*Reporting Rubric*).

BFOR202 - LEARNING OBJECTIVES

After completing this class the student should be able to:

E. Define Federal and State laws and legal processes relevant to cyber crime investigations.
F. Describe how to investigate a crime or incident facilitated by technology or the Internet.
G. Utilize proper methods for collecting and preserving potential evidence from the Internet.

H. Utilize proper methods collecting and preserving digital evidence at physical cyber crime scenes.

BFOR202 – LEARNING GOALS & STUDENT ASSESSMENTS

E. Student's knowledge will be assessed through quizzes and examinations with questions related to learned concepts, tools and techniques. (*true/false, multiple---choice, matching, short answer, and/or essay questions*)
F. Student's knowledge will be assessed through the use of written assignments developed to assess student's knowledge of learned terminology, such as investigative techniques involving the Internet, as well as its application in case---based and mock scenarios, reinforced with instructor---led class and team discussions (*Assignment, Writing, & Discussion Rubrics*).
G. Student's skills will be assessed through the use of task---oriented assignments developed to assess student's application of learned knowledge to perform online data collection and preservation facilitated by technology (*Assignment Rubric*).
H. Student's skill will be assessed on the ability to forensically process a "mock" cyber incident/crime scene and secure relevant digital evidence using learned methodology. Student will be assessed through the direct observation of instructor during incident/crime scene processing (*Lab Exercise Rubric*).

BFOR301 - LEARNING OBJECTIVES

After completing this class the student should be able to:

I. Prepare digital forensics incident response plan, policies and procedures for businesses, government and independent practitioners, consistent with standards.
J. Utilize computer forensic tools to analyze computer digital evidence.
K. Perform forensic analysis of removable media digital evidence.
L. Prepare written reports & oral presentations derived from computer and removable media forensic analysis findings.

BFOR301 – LEARNING GOALS & STUDENT ASSESSMENTS

I. Student 's disposition will be assessed on the ability to properly complete essential documentation associated with digital forensics and incident response based on industry standards, such as NIJ Forensic Examination of Digital Evidence Guidelines, SWGDE Guidelines, SWGIT Guidelines, and other Digital Forensics Best Practices. (*Writing & Reporting Rubrics*)
J. Student's skill will be assessed on the ability to operate digital forensics hardware and software tools, facilitated through hands---on lab exercises, to perform forensic preservation, examination and analysis of control data derived from "mock" computers associated with case---based mock scenarios. (*Computer Skills & Lab Exercise Rubrics*)

K. Student's skill will be assessed on the ability to apply forensic preservation, examination and analysis of removable media, such as magnetic and solid---state storage devices, through hands---on lab exercises. (*Lab Exercise Rubric*)
L. Student 's disposition will be assessed on the ability to properly complete computer forensics analysis reports, and provide an oral presentation outlining such findings, opinions and conclusions. (*Writing, Reporting, & Presentation Rubrics*)

BFOR302 - LEARNING OBJECTIVES

After completing this class the student should be able to:

M. Identify federal and state eDiscovery statutes and case law.
N. Define methodology for collecting, preserving and managing corporate electronic information that facilitates the eDiscovey process.
O. Develop forensic policies and procedures for corporate managers and IT personnel.
P. Utilize tools utilized to preserve and manage eDiscovery related data.
Q. Student will prepare comprehensive written report pursuant to electronic discovery investigation and court proceedings.

BFOR302 – LEARNING GOALS & STUDENT ASSESSMENTS

M. Student's knowledge will be assessed through quizzes and examinations with questions related to learned Federal and State Laws and Regulations. (*true/false, multiple---choice, matching, short answer, and/or essay questions*)
N. Student's knowledge will be assessed through the use of written assignments developed to assess student's knowledge of learned terminology, by challenging the student to apply concepts into management practices for collecting and preserving Electronically Stored Information, during class and team discussions. (*Assignment and Discussion Rubrics*)
O. Student 's knowledge and skill will be assessed on the ability to properly complete essential documentation associated with eDiscovery investigations, based on legal and forensic standards, such as Federal Rules of Evidence, Federal Rules of Civil Practice and NIJ Digital Evidence Forensic Examinations publications. This assessment will include written assignments, class and team discussions, as well as a course project involving the creation and peer review of eDiscovery policies and procedures. (*Writing, Assignment, Discussion & Project Rubrics*)
P. Student's skill will be assessed on the ability to operate eDiscovery Forensic hardware and software tools, facilitated through hands---on lab exercises, to perform forensic collection and preservation of Electronically Stored Information, derived from "mock" computers and other controlled data, in case---based mock scenarios. (*Computer Skills & Lab Exercise Rubrics*)
Q. Student 's disposition will be assessed on the ability to properly complete eDiscovery Investigative and Forensics reports, as well as provide an oral presentation outlining such findings, opinions and conclusions.

(*Writing, Reporting, & Presentation Rubrics*)

BFOR303 - LEARNING OBJECTIVES

After completing this class the student should be able to:

R. Utilize forensic tools and techniques to examine and analyze complex computer evidence.
S. Perform other forensic processes to properly cleanse, restore and archive digital evidence.
T. Prepare policies and procedures for managing digital forensic laboratory operations.
U. Prepare written & oral presentations derived from complex digital evidence forensic analysis and laboratory operations.

BFOR303 – LEARNING GOALS & STUDENT ASSESSMENTS

R. Student's skill will be assessed on the ability to operate Digital Forensics hardware and software tools, facilitated through hands---on lab exercises, to perform forensic processes, such as acquisition, examination, and analysis, of magnetic and solid state storage disks. Lab Exercises will be derived from "mock" computers and other electronic devices with controlled data, involving complex data analytics, such as encryption, password protection and steganography.
(*Computer Skills & Lab Exercise Rubrics*)
S. Student's skill will be assessed on the ability to operate Digital Forensics hardware and software tools, facilitated through hands---on lab exercises, to perform complex forensic processes, such as secure cleansing or wiping, operating system logical restoration, and long term archiving of the data found in magnetic and solid state storage disks. Lab Exercises will be derived from a wide assortment of "mock" computers and other electronic devices with multiple types of controllers, interfaces and circuitry, challenging to student utilize proper forensic methodology to perform and validate such processes. (*Computer Skills & Lab Exercise Rubrics*)
T. Student 's knowledge and skills will be assessed on the ability to properly develop essential documentation associated with the operation of a Computer Forensic Laboratory and Quality Control Management involving ISO---17025 Lab requirements, ASCLD/LAB 17025 Supplemental requirements, and SWGDE Quality Management Guidelines. Students will engage in class and team discussions during course project to conduct peer review of developed documents in order to improve of the quality of the work product, utilize auditing principles and to ensure adherence to industry standards. (*Writing, Reporting & Discussion Rubrics*)
U. Student 's disposition will be assessed on the ability to properly complete computer forensics analysis reports, based on advanced and complex devices and/or data, as well as provide an oral presentation outlining such findings, opinions and conclusions.
(*Writing, Reporting, & Presentation Rubrics*)

BFOR304 - LEARNING OBJECTIVES

After completing this class the student should be able to:

V. Identify federal and state legal statutes, case law and government regulations relevant to network data preservation and incident forensic response.
W. Utilize proper tools and methods for collecting & preserving network and mobile device hardware, and potential digital evidence.
X. Prepare network cyber incident & forensics response plan, policy and procedures, consistent with industry standards.
Y. Prepare written & oral presentations derived from network and mobile device analysis.

BFOR304 – LEARNING GOALS & STUDENT ASSESSMENTS

V. Student's knowledge will be assessed through quizzes and examinations with questions related to learned Federal and State Laws and Regulations involving data storage, disaster recovery, protection and risk assessment involving networks and mobile devices.
(*true/false, multiple---choice, matching, short answer, and/or essay questions*)
W. Student's knowledge and skill will be assessed through the use of written and task---oriented assignments developed assess student's knowledge of learned terminology, such as network servers, devices and appliances, as well as participate in hands---on lab exercises utilizing network storage, monitoring, recovery and forensic analysis. (*Computer Skills, Assignment, & Lab Exercise Rubrics*)
X. Student 's knowledge and skills will be assessed on the ability to properly develop essential documentation associated with the standards and best practices regarding the forensic examination and data analysis of networks and mobile devices, such as NIJ Examination of Digital Evidence found in Networks and Mobile Devices best practices, SWGDE and SWGID Guidelines, as well as other related best practices. Students will be assessed during class and team discussions, writing assignments and course project. (*Writing, Project & Discussion Rubrics*)
Y. Student 's disposition will be assessed on the ability to properly complete analysis reports, based on network and mobile devices and its data, as well as provide an oral presentation outlining such findings, opinions and conclusions.
(*Writing, Reporting, & Presentation Rubrics*)

BFOR401W - LEARNING OBJECTIVES

After completing this class the student should be able to:

AA. Develop incident response and forensic examination plan in support of case based scenario.
BB. Utilize the skills obtained in previous coursework to perform forensic analysis of multiple items of digital evidence in support of case-based scenario.
CC. Understand quality control audits and assessments relevant to forensic and laboratory management.
DD. Utilize the skills obtained in previous coursework to prepare a comprehensive written report and present forensic findings to a panel of subject matter experts.
EE. Based on the case scenario, prepare court-related presentation materials, documents and exhibits in support of case-bases scenario.

BFOR401W – LEARNING GOALS & STUDENT ASSESSMENTS

AA. Utilizing learned concepts and terminology from BFOR201, 202, 301, 302, 303 & 304 coursework, student will prepare incident response and examination plans to address the forensic analysis of digital evidence derived from a recent cyber incident/crime or through case---based scenario data, prior to conducting forensic analysis of data. Student will be guided by the instructor, without classroom lecture material, to ensure the student exhibits knowledge and skill in utilizing online resources, industry---related publications, or other available resources. Student's work product will be peer reviewed prior to student assessment; students conducting peer review will also be assessed on competency and thoroughness of the peer review process.
(*Peer Review, Project, Reporting and Writing Rubrics*)

BB. Utilizing learned knowledge and skills from BFOR201, 202, 301, 302, 303 & 304 coursework, student will engage in the development of audit and self---assessment protocols, consistent with quality control standards associated with forensic laboratory operations, based on the case---scenario. Students will participate in team discussions to develop audit procedures and forms to audit other team's forensic analysis peer review processes, supporting documentation, and overall quality control management system utilized on the case---scenario. Student will be assessed through direct observation, feedback from team members, feedback from other teams and competent completion of the audits and self---assessments. (*Project, Peer Review, Auditing, Discussion, Reporting and Writing Rubrics)*

CC. Utilizing learned knowledge and skills from BFOR201, 202, 301, 302, 303 & 304 coursework, student will forensically analyze digital evidence derived from networks, mobile devices, computers, and other electronic hardware and its data, utilizing previously developed Examination plan. Analysis findings and its supporting documentation, such as forms and worksheets, will be subject to peer review prior to student assessment; students conducting peer reviews will also be assessed on competency and thoroughness of the peer review process.

(*Peer Review, Project, Reporting and Writing Rubrics*)

DD. Utilizing learned knowledge and skills from BFOR201, 202, 301, 302, 303 & 304 coursework, student will prepare comprehensive forms reports and supporting documentation associated with the forensic analysis of digital evidence associated with the case---scenario. Reports and supporting documentation will be subject to peer review prior to student assessment; students conducting peer reviews will also be assessed on competency and thoroughness of the peer review process. Presentation of incident response and examination plans and forensic analysis findings reports will be presented to an advisory panel of subject matter experts in the management, forensic, legal and academic fields, tasked with providing student with feedback and guidance of the work product and presentation. Instructor will assess student's disposition of the course learned goals, based on direct observation of the student's application of forensic, laboratory, and quality control standards, as well as peer reviews, advisory panel's feedback, and competency in performing data analytics. (*Writing, Peer Review, Auditing Project, Reporting, and Rubrics*)

EE. Utilizing learned knowledge and skills from BFOR201, 202, 301, 302, 303 & 304 coursework, current relevant publications, guidance by the instructor, and feedback from the panel of subject matter experts, students will prepare presentation material that is legally, technically and communicative sufficient for administrative hearings, civil and criminal proceedings, or other venues where a forensic or eDiscovery specialist may have to testify before a judge, board, panel or jury about said analytical findings. (*Project, Reporting, and Presentation Rubrics*)

BFOR402 - LEARNING OBJECTIVES

After completing this class the student should be able to:

FF. Become familiar with civil and criminal legal proceedings and courtrooms.
GG. Prepare for legal proceedings and testimony associated with digital forensics.
HH. Effectively engage in pre-testimony proceedings with legal counsel.
II. Effectively provide testimony during direct and cross-examination.
JJ. Prepare court exhibits derived from digital forensics analysis and lab reports.

BFOR402 – LEARNING GOALS & STUDENT ASSESSMENTS

FF. Student's knowledge will be assessed through quizzes and examinations with questions related to learned Civil and Criminal Court proceedings and terminology. (*true/false, multiple---choice, matching, short answer, and/or essay questions*)

GG. Student's knowledge and skills will be applied to the preparation for legal proceedings and testimony, utilizing forensic analysis findings, reports and other supporting documentation generated during BFOR401W case scenario. Students will engage in Class and Team discussions in order to facilitate knowledge sharing and peer review of student's preparation activities. Instructor will guide each

student through the preparation stages and assess student's commitment to successful legal proceedings and testimony.
(*Writing, Discussion, Project, Peer Review Rubrics*)

HH. Student will communicate with legal subject matter expert, either through the School of Criminal Justice or other source, to prepare for Moot "mock" court proceedings. Student will present to SME current preparation of presentation materials to ensure legal sufficiency and relevancy to the pending moot court proceedings. Student will be assessed on the knowledge and skills displayed to the instructor, and feedback from the subject matter expert.
(*Project, Writing, Presentation Rubrics*)

II. Student will provide testimony during moot court legal proceedings comprised of any, or a combination of the following; Trial (civil or criminal), Suppression Hearing, Discovery Hearing, Grand Jury, Administrative Hearing. Student will be assessed based on direct observation of instructor, anonymous feedback from peers, and feedback from subject matter experts. (*Presentation Rubric*)

ASSESSMENT RUBRICS

The following rubrics will be used to assess whether the learning objectives have been met (as specified) and ultimately whether program outcomes have been achieved.

1. Assignment Rubric
2. Auditing Rubric
3. Computer Skills Rubric
4. Discussion Rubric
5. Presentation Rubric
6. Project Rubric
7. Reporting Rubric
8. Writing Rubric

Student Name:_____ Date:_____ BFOR---_____

Grading Assessment Criteria	Excellent	Good	Satisfactory	Meets Standards	Unsatisfactory
Content					
Format					
Technical					
Output					

Excellent

- Provides very specific information relevant to the topic with proper references.
- Clearly illustrates critical and reflective thinking.
- Well thought out response with no technical errors.
- No grammar or spelling errors; formatted according to requirements.
- Assignment meets and exceeds all requirements and addresses all required components.

Good

- Provides very specific information relevant to the topic with proper references.
- Clearly illustrates critical and reflective thinking.
- Well thought out response with no technical errors.
- No grammar or spelling errors; formatted according to requirements.
- Assignment meets all requirements and addresses most required components.

Satisfactory

- Provides very specific information relevant to the topic with proper references.
- Well thought out response with no technical errors.
- No grammar or spelling errors; formatted according to requirements.
- Assignment meets most requirements and addresses most required components.

Meets Standards

- Provides very specific information relevant to the topic with proper references.
- Well thought out response with no technical errors.
- Assignment meets minimum requirements and addresses some required components.

Unsatisfactory

- Does not meet minimum requirements.

Student Name:_____ Date:_____ BFOR---_____

Grading Assessment Criteria	Excellent	Good	Satisfactory	Meets Standards	Unsatisfactory
Organization					
Quality Management					
Documentation					
Management					
Equipment					
Personnel					

Excellent

- Exhibits excellent organizational skills; always arranges workload to minimize disruptions.
- Exhibits excellent time management skill; always completes tasks on a timely basis.
- Exhibits excellent quality control skills when performing forensics, peer reviews and research.
- Always completes required documentation; no errors or conflicts found in completed documents.
- When engaged in a leadership role, exhibits excellent organizational and managerial skills to resolve conflicts affecting people, quality and output.
- Utilizes all equipment properly and is fully knowledgeable in essential hardware and software.
- Exhibits excellent people skills by assisting and collaborating with other individuals and teams.
- Meets and Exceeds all requirements; Performs all required tasks and responsibilities effectively.

Good

- Exhibits good organizational skills; often arranges workload to minimize disruptions.
- Exhibits good time management skill; often completes tasks on a timely basis.
- Exhibits good quality control skills when performing forensics, peer reviews and research.
- Often completes required documentation with minimal errors or conflicts, found in completed documents.
- When engaged in a leadership role, exhibits great organizational and managerial skills to resolve conflicts affecting people, quality and output.
- Usually utilizes equipment properly; highly knowledgeable in essential hardware and software.
- Exhibits good people skills by assisting and collaborating with other individuals and teams.
- Meets all requirements; performs most required tasks and responsibilities effectively.

Satisfactory

- Exhibits acceptable organizational skills; sometimes arranges workload to minimize disruptions.
- Exhibits acceptable time management skill; sometime completes tasks on a timely basis.
- Exhibits acceptable quality control skills when performing forensics, peer reviews and research.
- Often completes required documentation with several errors or conflicts, found in completed documents.
- When engaged in a leadership role, exhibits some organizational and managerial skills to resolve conflicts affecting people, quality and output.
- Sometimes utilizes equipment properly; somewhat knowledgeable in essential hardware and software.
- Exhibits acceptable people skills by assisting and collaborating with other individuals and teams.
- Meets most requirements; performs most required tasks and responsibilities effectively.

Meets Standards

Student Name:_____ Date:_____ BFOR---_____

- Exhibits minimum organizational skills; may arrange workload to minimize disruptions.
- Exhibits minimum time management skill; may complete tasks on a timely basis.
- Exhibits minimum quality control skills when performing forensics, peer reviews and research.
- May complete required documentation, often with several errors or conflicts found in completed documents.
- When engaged in a leadership role, exhibits minimum organizational and managerial skills to resolve conflicts affecting people, quality and output.
- Rarely utilizes equipment properly; barely knowledgeable in essential hardware and software.
- Exhibits minimum people skills by assisting and collaborating with other individuals and teams.
- Meets minimum requirements; performs some required tasks and responsibilities effectively.

Unsatisfactory

- Does NOT meet minimum requirements; does not perform required task and responsibilities.

Student Name:_____ Date:_____ BFOR---_____

Grading Assessment Criteria	Excellent	Good	Satisfactory	Meets Standards	Unsatisfactory
Use of Web					
Online Collection					
Computer Applications					
Computer Hardware					
Specialized Utilities					

Excellent

- Demonstrates competency in online research skills
- Demonstrates competency in online data collection skills
- Demonstrates competency in computer hardware handling
- Demonstrates competency in computer applications
- Demonstrates competency in digital forensics/eDiscovery applications, tools and equipment
- Meets and exceeds computer---skills competency requirements associated with coursework

Good

- Demonstrates competency in online research skills
- Demonstrates competency in online data collection skills
- Demonstrates competency in computer hardware handling
- Demonstrates competency in computer applications
- Demonstrates competency in digital forensics/eDiscovery applications, tools and equipment
- Meets computer---skills competency requirements associated with coursework

Satisfactory

- Demonstrates competency in online data collection skills
- Demonstrates competency in computer hardware handling
- Demonstrates competency in computer applications
- Demonstrates competency in digital forensics/eDiscovery applications, tools and equipment
- Meets some computer---skills competency requirements associated with coursework

Meets Standards

- Demonstrates competency in online data collection skills
- Demonstrates competency in computer applications
- Demonstrates competency in digital forensics/eDiscovery applications, tools and equipment
- Meets minimum computer---skills competency requirements associated with coursework

Unsatisfactory

- Does not meet computer---skills competency requirements associated with coursework

Student Name:_____ Date:_____ BFOR---_____

Grading Assessment Criteria	Excellent	Good	Satisfactory	Meets Standards	Unsatisfactory
Contributes to Team Discussion					
Properly prepared for Team Discussions					
Displays proper communication skills					

Excellent

- Contributes to Team Discussion: Provides assistance and/or encouragement to team members. Helps the team move forward by articulating the merits of alternative ideas. Engages team members in ways that facilitate their contributions in discussions. Notices when someone is not participating and inviting them to engage.
- Displays Proper Preparation for Team Discussions: Completes all assigned tasks by deadlines. Proactively helps other team members complete their assigned tasks to a similar level of excellence. Provides necessary supporting documentation and references to support team discussions. Work accomplished is thorough, comprehensive and advances discussions.
- Displays Proper Communication Skills: Uses positive vocal or written tone, facial expressions, and/or body language to convey a positive attitude about the team and its work. Addresses destructive conflict directly and constructively. Treats team members respectfully by being polite and constructive in communication. Utilizes effective presentation techniques to convey ideas, topics to other individuals and teams.

Good

- Contributes to Team Discussion: Provides assistance and/or encouragement to team members. Helps the team move forward by articulating the merits of alternative ideas. Engages team members in ways that facilitate their contributions in discussions.
- Displays Proper Preparation for Team Discussions: Completes all assigned tasks by deadlines. Provides necessary supporting documentation and references to support team discussions. Work accomplished is thorough, comprehensive and advances discussions.
- Displays Proper Communication Skills: Uses positive vocal or written tone, facial expressions, and/or body language to convey a positive attitude about the team and its work. Treats team members respectfully by being polite and constructive in communication. Utilizes effective presentation techniques to convey ideas, topics to other individuals and teams.

Satisfactory

- Contributes to Team Discussion: Helps the team move forward by articulating the merits of alternative ideas. Engages team members in ways that facilitate their contributions in discussions.
- Displays Proper Preparation for Team Discussions: Completes all assigned tasks by deadlines. Provides necessary supporting documentation and references to support team discussions.
- Displays Proper Communication Skills: Treats team members respectfully by being polite and constructive in communication. Utilizes effective presentation techniques to convey ideas, topics to other individuals and teams.

Meets Standards

- Contributes to Team Discussion: Engages team members in ways that facilitate their contributions in discussions.
- Displays Proper Preparation for Team Discussions: Completes all assigned tasks by deadlines.
- Displays Proper Communication Skills: Treats team members respectfully by being polite and constructive in communication.

Unsatisfactory

- Does not meet minimum standards or requirements.

Student Name:_____ Date:_____ BFOR---_____

Grading Assessment Criteria	Excellent	Good	Satisfactory	Meets Standards	Unsatisfactory
Documentation					
Technical					
Administrative					
Procedures					
Quality Control & Assurance					

Excellent

- Utilizes knowledge and skill to identify possible errors in the report, form or other documentation.
- Utilizes knowledge and skill to identify possible improvements to any administrative protocols.
- Utilizes knowledge and skill to identify possible improvements to any quality control protocol.
- Utilizes knowledge and skill to identify possible improvements to any forensic procedure protocol.
- Utilizes knowledge and skill to identify possible errors in the output product or analysis findings.
- Meets and Exceeds all requirements and covers all required areas of information.

Good

- Utilizes knowledge and skill to identify possible errors in the report, form or other documentation.
- Utilizes knowledge and skill to identify possible errors to any quality control protocol.
- Utilizes knowledge and skill to identify possible improvements to any forensic procedure protocol.
- Utilizes knowledge and skill to identify possible errors in the output product or analysis findings.
- Meets all requirements and covers most required areas of information.

Satisfactory

- Utilizes knowledge and skill to identify possible errors in the report, form or other documentation.
- Utilizes knowledge and skill to identify possible errors to any quality control protocol.
- Utilizes knowledge and skill to identify possible errors in the output product or analysis findings.
- Meets most requirements and covers some required areas of information.

Meets Standards

- Utilizes knowledge and skill to identify possible errors to any quality control protocol.
- Utilizes knowledge and skill to identify possible errors in the output product or analysis findings.
- Meets requirements and covers minimum required areas of information.

Unsatisfactory

- Does NOT meet minimum requirements and did not cover required areas of information.

Student Name:_____ Date:_____ BFOR---_____

Grading Assessment Criteria	Excellent	Good	Satisfactory	Meets Standards	Unsatisfactory
Organization					
Communication					
Content					
Quality of Display					

Excellent

- Strong introduction and closing
- Shows outstanding evidence of preparation
- Uses appropriate application of aids, graphics or multimedia
- Speaks clearly and uses excellent grammar and appropriate word choices
- Uses proper body language and eye contact
- Meets and exceeds requirements and covers all required areas of information
- Represents a significant amount of time and effort

Good

- Strong introduction and closing
- Shows good evidence of preparation
- Uses appropriate application of aids, graphics or multimedia
- Speaks clearly and uses excellent grammar and appropriate word choices
- Uses proper body language and eye contact
- Meets requirements and covers most required areas of information

Satisfactory

- Shows good evidence of preparation
- Uses appropriate application of aids, graphics or multimedia
- Speaks clearly and uses excellent grammar and appropriate word choices
- Meets requirements and covers some required areas of information

Meets Standards

- Shows some evidence of preparation
- Uses minimal application of aids, graphics or multimedia
- Meets requirements and covers minimum required areas of information

Unsatisfactory

- Does not meet requirements and did not cover required areas of information

Student Name:_____ Date:_____ BFOR---_____

Grading Assessment Criteria	Excellent	Good	Satisfactory	Meets Standards	Unsatisfactory
Timeliness					
Research					
Procedures					
Forensics					
Output					

Excellent

- Research is thorough and specific to its perceived requirements with great references.
- Developed procedures are detailed, appropriate, thorough, and meets requirements.
- Appropriate use of applications and multimedia to properly display data, results and output.
- Conclusions are supported by the data and references with no errors or conflicts.
- Proper format of output; No spelling and grammar errors.
- Output is submitted on a timely basis with no errors or conflicts.
- Meets and exceeds all requirements; all tasks completed in an exemplary manner.

Good

- Research is thorough and specific to its perceived requirements with good references.
- Developed procedures are detailed, appropriate, thorough, and meets requirements.
- Appropriate use of applications and multimedia to properly display data, results and output.
- Conclusions are supported by the data and references with minimal errors or conflicts.
- Proper format of output; Minimal spelling and grammar errors.
- Output is submitted on a timely basis with minimal errors or conflicts.
- Meets all requirements; all tasks completed in great manner.

Satisfactory

- Research is specific to its perceived requirements with acceptable references.
- Developed procedures are fairly detailed, appropriate, thorough, and meets requirements.
- Fair use of applications and multimedia to properly display data, results and output.
- Conclusions are supported by the data and references with several errors or conflicts.
- Format of output is acceptable; several spelling and grammar errors.
- Output is submitted on a timely basis with several errors or conflicts.
- Meets most requirements; most tasks completed.

Meets Standards

- Research is fairly specific to its perceived requirements with very few references.
- Developed procedures are barely detailed, appropriate, thorough, and barely meet requirements.
- Minimal use of applications and multimedia to display data, results and output.
- Conclusions are barely supported by the data and references with many errors or conflicts.
- Format of output is barely acceptable; many spelling and grammar errors.
- Output is barely submitted on a timely basis with many errors or conflicts.
- Meets minimum requirements; some tasks completed.

Unsatisfactory

- Does not meet minimum requirements.

Student Name:_____ Date:_____ BFOR---_____

Grading Assessment Criteria	Excellent	Good	Satisfactory	Meets Standards	Unsatisfactory
Structure & Organization					
Procedures & Instructions					
Format & Presentation					
Conclusions & Findings					

Excellent

- Follows proper procedures and instructions during analytical assignment, exercise or lab.
- Arrives at logical conclusions and/or findings based on data analysis.
- Exports or outputs analytical electronic data based on derived conclusions and/or findings.
- Properly organizes output of reports generated by hardware and software forensic tools.
- Clear and well---structured content with virtually no spelling or grammatical errors.
- Meets and exceeds requirements involving written, electronic and/or data analysis assignment, exercise or lab.

Good

- Follows proper procedures and instructions during analytical assignment, exercise or lab.
- Arrives at logical conclusions and/or findings based on data analysis.
- Exports or outputs analytical electronic data based on derived conclusions and/or findings.
- Properly organizes output of reports generated by hardware and software forensic tools.
- Clear and well---structured content with virtually some spelling or grammatical errors.
- Meets most requirements involving written, electronic and/or data analysis assignment/exercise.

Satisfactory

- Follows proper procedures and instructions during analytical assignment, exercise or lab.
- Arrives at logical conclusions and/or findings based on data analysis.
- Exports or outputs analytical electronic data based on derived conclusions and/or findings.
- Clear and well---structured content with virtually several spelling or grammatical errors.
- Meets some requirements involving written, electronic and/or data analysis assignment/exercise.

Meets Standards

- Arrives at logical conclusions and/or findings based on data analysis.
- Exports or outputs analytical electronic data based on derived conclusions and/or findings.
- Clear and well---structured content with virtually many spelling or grammatical errors.
- Meets minimum requirements involving written, electronic and/or data analysis assignment/exercise.

Unsatisfactory

- Does not meet requirements involving written, electronic and/or data analysis assignment, exercise or lab.

Student Name:_____ Date:_____ BFOR---_____

Grading Assessment Criteria	Excellent	Good	Satisfactory	Meets Standards	Unsatisfactory
Content & Accuracy					
Structure & Organization					
Format & Presentation					

Excellent

- Document is correctly formatted (paragraphs, margins, fonts, headings).
- Clear and well-structured sentences with virtually no spelling or grammatical errors.
- Quotations and References are all properly attributed and cited in a consistent style.
- Main points are sufficiently supported with valid and specific content.
- Ideas or topics are linked with smooth and effective transitions.
- Document meets and exceeds requirements of assignment, project, and/or exercise.

Good

- Clear and well-structured sentences with virtually some spelling or grammatical errors.
- Quotations and References are all properly attributed and cited in a consistent style.
- Main points are sufficiently supported with valid and specific content.
- Ideas or topics are linked with smooth and effective transitions.
- Document meets most requirements of assignment, project, and/or exercise.

Satisfactory

- Clear and well-structured sentences with virtually several spelling or grammatical errors.
- Quotations and References are all properly attributed and cited in a consistent style.
- Main points are sufficiently supported with valid and specific content.
- Document meets some requirements of assignment, project, and/or exercise.

Meets Standards

- Clear and well-structured sentences with virtually many spelling or grammatical errors.
- Main points are sufficiently supported with valid and specific content.
- Document meets minimum requirements of assignment, project, and/or exercise.

Unsatisfactory

- Document does not meet minimum requirements of assignment, project, and/or exercise.

University at Albany, BS in Digital Forensics

Appendix 3
Catalog Descriptions

A PSY 101 Introduction to Psychology (3)
The basic methods and points of view in the scientific study of human behavior. Topics include biological bases of behavior, personality organization, intelligence, motivation, emotions, learning, and social relations. For psychology majors completing their major requirements as outlined in this bulletin or subsequent editions, A PSY 101 is restricted to *A-E* grading after matriculation at Albany. Only one of A PSY 101, 102, or T PSY 102 may be taken for credit.

A SOC 115/115Z Introduction to Sociology (3)
Nature of culture and of human society, personality development, groups and group structure, social institutions, the processes of social change. Only one version of A SOC 115 may be taken for credit.

B ACC 211 Financial Accounting (3)
A thorough introduction to the basic financial statements including the balance sheet, income statement, and statement of cash flows, with a focus on accounting information that is available to individuals outside an organization. The course provides an introduction to the concepts, terminology and principles of financial accounting. Students learn about accounting as an information development and communication function that supports economic decision-making. The course enables students to analyze financial statements; derive information for personal and organizational decisions from financial statements; and better understand business entities. Not open to freshmen. Intended accounting and business majors should enroll in B ACC 211 in the first semester of their sophomore year. Offered fall semester only.

BFOR 201 – Introduction to Digital Forensics (3)
Cyber incidents continue to increase, affecting corporate and government environments, as well as individuals. It is crucial for individuals and employees to understand how cyber attacks affect businesses and government, techniques for minimizing risk, and the proper methods to investigate cyber incidents. This course prepares students to conduct cyber-crime investigations involving computers and the Internet, while utilizing investigative processes and techniques that facilitates investigations in the public and private sectors. Students will be introduced to proper techniques for collecting and preserving online information and potential digital evidence at crime scenes, as well as prepare reports, which may be presented at administrative, civil and criminal proceedings. Does not yield credit in the majors or minor in the School of Business.

BFOR 202 Cyber Crime Investigation (3)
This course prepares students to conduct cyber-crime investigations involving computers and the Internet, while utilizing investigative processes and techniques that facilitates investigations in the public and private sectors. Students will be introduced to proper techniques for collecting and preserving online information and potential digital evidence at crime scenes, as well as prepare reports, which may be presented at administrative, civil and criminal proceedings. This course is offered as an elective only and does not count under the requirements in the School of Business majors.

BFOR 302 - eDiscovery (3)
This course prepares students to use electronic discovery statutes, case law and collection, preservation and management of corporate information.

B ITM 215 Information Technologies for Business (3)
This course focuses on the role of information systems in solving business problems. The topics will include software applications, information security, e-commerce and cyber-ethics. Students will develop business-oriented applications

using Microsoft Excel (comprehensive level) and Microsoft Access (introductory level). There will be two end-of-semester projects that involve developing a business application by interfacing Excel, Access and Word. Students may take both B ITM 215 and I CSI 101 for credit. Not open to freshmen. Offered fall and spring semesters.

R CRJ 201 Introduction to the Criminal Justice Process (3)
Analysis of the decisions made in the process whereby citizens become suspects, suspects become defendants, some defendants are convicted and in turn become probationers, inmates and parolees. Analysis of operational practices at the major criminal justice decision stages. Analysis of innovative programs and the dilemmas of change in policing, diversion, court administration, sentencing, and community correctional programs.

R CRJ 202 Introduction to Law and Criminal Justice (4)
Students will study judicial decisions involving constitutional and other legal issues relevant to criminal justice, including the government's power to define conduct as criminal, procedural rights, defenses, the rights of juveniles, and punishment. In addition to class meetings, students will enroll in a discussion section where they will engage in legal writing and moot court exercises.

R CRJ 203 (= A SOC 203) Criminology (3)
Introduction to the study of crime, including the development of criminal law, the relationship between crime and social structure, and the individual and social causes of crime. Only one of A SOC 203; A SOC 381; or R CRJ 203 can be taken for credit. Prerequisite(s): A SOC 115.

R CRJ 281 Introduction to Statistics in Criminal Justice (3)
Provides an introduction to statistical methods useful for analyzing the types of data most often encountered in criminal justice research, and it is intended primarily for criminal justice undergraduates. The course has a "practitioner" orientation, emphasizing how to understand and use statistics rather than how to create them. A variety of widely used statistical methods will be considered, including descriptive statistics, correlation and regression, hypothesis testing (inferential statistics), and contingency tables. A working knowledge of high school algebra will be assumed. May not be taken for credit by students with credit for A SOC 221.

UNIVERSITY AT ALBANY, SUNY

Appendix 4

Course Syllabi

BS Digital Forensics

SCHOOL OF BUSINESS
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#XXXX – BFOR 100 Introduction to Information Systems (3 credits)

Fall XXXX – Aug X – Dec X, 2014
Course Prerequisite(s): None
Instructor(s):
Developer(s):

SYLLABUS

COURSE DESCRIPTION

This course provides a foundation of information systems concepts that can be applied to future learning in advanced topics. The course will include background in the history and social implications of computing including cyber ethics; emergent and contemporary information technology and its nomenclature; information and data abstraction, representation, manipulation and storage; operating systems; networking and the Internet, programming languages, logic, and algorithms; database systems; digital graphics and multimedia; and information security.

LEARNING OBJECTIVES

Overarching Goal: Gain a foundation in information systems for future learning in advanced topics.

Sub-Objectives: Student will learn how to:

1. Critically discuss and evaluate ethical and legal issues and codes of practice related to the use of information systems
2. Recognize computer and network hardware and peripherals
3. Compare the advantages and disadvantages of different types of networks
4. Distinguish between different file and data structures and data types
5. Identify basic information security risks and engage in common secure practices
6. Use a database for data storage and retrieval
7. Apply programmatic logic for solving business problems
8. Evaluate and identify adequate information sources and how to properly attribute intellectual credit

COURSE FORMAT: F2F ON-CAMPUS DELIVERY

The course will be offered in-class and include both lecture and hands-on laboratory components. In addition, learning will be supplemented with assigned readings or videos, discussions, and other assignments and exercises related to the course topics.

F2F Meeting Dates, Times, and Location: In-class sessions will be held on DAYS between Month 00, 000 to Month 00, 0000 except for the following dates: Month 00, 0000, Month 00, 0000 & Month 00, 0000 that are school holidays. These sessions will be held at 00:00 EST in ROOM located at CAMPUS LOCATION. Please refer to the following link for directions: http://www.directions.com

INSTRUCTOR CONTACT

Type	Information	Availability
Email		
Phone		

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In Person		
Virtual Chat		

Sample

COURSE RESOURCES

Type	Information
Course Website	https://blackboard.albany.edu
Instructor Website	http://www.instructorwebsite.edu
Textbook(s)	AuthLastName,FI. MI. (0000). *BookTitle, 0th ed.* City, STATE: Publisher. ISBN: 000-0-000-00000-0
Reference Books(s)	AuthLastName,FI. MI. (0000). *BookTitle, 0th ed.* City, STATE: Publisher. ISBN: 000-0-000-00000-0

COURSE ACTIVITIES

Lectures: Instructor-led lectures that may be supplemented with expert guest lectures on course-related topics will be offered in class. The lecture material should summarize and expand on the knowledge obtained from the assigned readings and assignments.

Readings: Chapters, articles, or other readings assigned in the class are meant to supplement or reinforce the other course materials and will not generally have duplicate content.

Cases: Case studies using actual examples to provide real-world relevance to the topics in the class.

Discussions: There will be discussions in the class that may include debates about ethical and legal behavior or privacy and security concerns. The following rubric will be used for evaluation of these discussions.

Criteria	Outstanding 90-100	Proficient 80-89	Marginal 70-79	Unsatisfactory 0-69
Content Critical Thinking	Comments/questions are thought provoking and display insight. They add to the depth of the discussion. Resources/citations are used to support comments or ideas.	Comments/questions are appropriate/ relative and add to the discussion, but may not always display insight or provoke thought. Resources/citations may be used to support comments or ideas.	Comments/questions are relative but do not add to the discussion or may show lack of insight. Resources/citations may be used to support comments or ideas.	Comments/questions are not relative to the case and do not add to the discussion. No references or citations are used.

Assignments/Exercises: Assignments and exercises will be provided to evaluate understanding and for applying content learned in either lecture material or readings. There will be several assignments in the class in-class and assigned for homework. These include assignments leading up to the paper and annotated bibliography as well as technical assignments related to setting up information systems and programming.

F2F Exams: These exams will be offered to assess individual content review and understanding. Exam I will cover topics discussed in the first 6 weeks of the course. Exam II will cover topics covered after Exam I.

Hands-On Laboratories: Laboratory exercises will be offered where students get hands-on experience using tools and techniques in the field. These will include setting up an operating system as well as programming exercises among others.

Participation: Course attendance is important part of building long-lasting relationships and a learning community between your peers and your instructors. Not only does it allow you to share your opinions on course topics, but also you benefit from your classmates' and instructor perspectives. Participation in the course can be measured with attendance, and/or in-class assignments.

Paper and Annotated Bibliography: Students will spend the time of the class towards writing an academic paper on an emerging topic in computing and information technology. This will be structured in several assignments throughout the semester where students will define their topic; summarize and evaluate scholarly sources from both print and online media; create an outline; and then write and submit a 6-page paper (double-spaced, in 12pt font, 1 in. margins) and annotated bibliography.

GRADING AND ASSESSMENT

We try to grade assignments fairly and return them within a reasonable time period with relevant comments and to be available to discuss questions. Students are expected to set up an appointment to talk with the grader within a week of receiving a grade. Please let us know if there is a mistake in calculation – mistakes happen!

Late assignments, projects, or papers will receive 15% off per day late from the final possible grade for the exercise unless there is a legitimate excuse.

Students at UAlbany should contact the Disabled Student Services Center and the relevant professor at least a week before each F2F exam if requiring additional assistance. Missing any assessment without a verifiable legitimate excuse will result in a grade of zero. F2F Exams are expected to be closed-book unless otherwise specified and all personal electronic devices (laptops, cell phones, PDA's, etc.) should be put away.

Activity	Portion of Grade
Participation	10%
Discussions	5%
Assignments & Hands-On Laboratories	40%
Exam I	15%

Exam II	15%
Paper and Annotated Bibliography	15%

The instructor is expected to get approval of the entire class prior to making any changes regarding the grading rubric.

Overall Accumulative Point Evaluation:

Point Range	Letter Grade
97-100	A
91-96	A-
86-90	B+
81-85	B
76-80	B-
71-75	C+
66-70	C
63-65	C-
60-62	D
Below 60	E

COURSE SCHEDULE	
Week	Course Activities
1	**Introduction / Social and Business Implications of Computing**
2	**Cyber Ethics and Academic Integrity**
3	**Computer Architecture**
4	**Networks**
5	**The Internet and Digital Multimedia**
6	**Information Security Basics**
7	**Exam I**
8	**Operating Systems & Data Structures**
9	**Data Types and Database Applications**
10	**Data Representation, Number Systems & File Structures**
11	**Programming Logic & Problem-Solving**
12	**Applied Programming, Part 1**
13	**Applied Programming, Part 2**
14	**Exam II**

This schedule is subject to change and students are expected to be aware of any modifications to including, but not limited to: due dates, readings, exam dates, and project guidelines, announced via email, Blackboard announcements or during class hangouts.

SCHOOL OF BUSINESS
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Course ID: BFOR 203
Course Name: Networking – Introduction to Data Communication
Credit Hours: **3**
Semester: **Fall 2013**
Course Prerequisites: **No**

INSTRUCTOR CONTACT INFORMATION

Instructor	Yuan Hong
Email	hong@albany.edu
Website	www.albany.edu/faculty/hong/
Office Location	BB (New Business School)-316
Office Hours	Monday 3:00-5:00PM or by Appointment

COURSE DESCRIPTION

The past couple of decades have witnessed the digital revolution profoundly altering our society. Most of the business affairs have been linked to communication and networking technologies. With tremendous advances in networking, it is now feasible to connect all the devices such as computers, tablets, smart phones, and mainframes together. However, the newly innovative communication and networking technologies pose additional challenges to business and IT management. Nowadays, IT professionals must have an elementary understanding of those technologies that facilitate them better impose management in the organization or perform advanced analysis such as for network forensics. Balanced technical and managerial contents are incorporated to enable students to learn from various perspectives. This course will introduce the student to the organization and design of data networks. Topics include networking media, Ethernet technology, the TCP/IP protocol suite, subnets, routers and routing protocols, Wide Area Networks (WANs), and fundamentals of network management. This course includes hands-on experience of networking techniques. Offered fall semester only.

LEARNING OBJECTIVES

After completing this class the student should be able to:

- Understand the fundamental concepts of communication and networking
- Understand the applications and protocols built in each layer of the network architecture
- Solve some practical networking problems encountered in business environment for IT professionals.
- Know the state-of-the-art architectures and/or mechanisms in communication and networking, e.g., cloud computing

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TEXTBOOKS

Required Textbook: Business Data Communications and Networking, by Alan Dennis, Jerry Fitzgerald, and Alexandra Durcikova, Publisher: Wiley, 11 edition, ISBN-10: 111808683X

Supplementary Reading: Computer Networking: A Top-Down Approach Featuring the Internet by James F. Kurose and Keith W. Ross, Addison Wesley, 6th Edition, ISBN-10: 0132856204

COURSE ACTIVITIES

Attendance/Participation: Regular attendance is compulsory. You are not allowed to access Websites not related to the course or work on something beyond the scope of this course during the class time. The instructor expects students to actively participate in the class discussion.

Assignments & Hands-on Laboratories: Assignments will be assigned and graded by the instructor and will be based on the weekly discussion topic(s). Students will be required to complete and submit to the instructor by specific dates (generally one week later after the assigning it). Grading assessment will be based on acceptable grammar, terminology, formatting and substantive content. Moreover, laboratory exercise will be offered for students to learn hands-on experiences in networking management.

Group Project: A group project will be performed with delivery during the last few weeks of this course. The group can be gathered voluntarily and each group includes 3-5 students. The project includes literature survey/practice of new Internet technologies and their impact on business. Some ideas are (not limited to) web for business, social web, Wikipedia, web crawler, semantic web, new trends in search engines, web operating system, RFID business cases, mobile Internet, P2P applications, etc. Each group is expected to submit the survey and give a presentation in the week before final exam.

Exams: Students are required to take both Midterm and Final exams. The Midterm covers the contents of the first 6 classes and the final exam covers everything from Week 1-14. For exams, students will be responsible for the material covered in the lecture slides, projects and class discussions. In case you cannot attend the exam(s) on the scheduled date(s), a formal proof with appropriate excuse should be shown to the instructor. Otherwise, a make-up exam cannot be authorized.

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COURSE OUTLINE

Week	Topic
1	Introduction and Fundamental Concepts
2	Network Models and Standards
3	Application Layer
4	Physical Layer
5	Data Link Layer
6	Network and Transport Layers
7	**MID TERM EXAM**
8	Wired Local Area Networks (LAN)
9	Wireless and Mobile Network
10	Internet
11	Network Management and Design
12	Network Security
13	Cloud Computing
14	Project Presentations
15	**FINAL EXAM**

GRADING POLICY AND ASSESSMENT

Activity	Portion of Grade
Participation	10%
Assignments/Lab Exercises	25%
Project	15%
Midterm	25%

Final Exam	25%

Grading: The instructor will try to grade assignments, project and exams fairly and return them within a reasonable time period with relevant comments and to be available to discuss questions. Students are encouraged to setup an appointment to talk with the grader within a week of receiving a grade.

Late Submission: Late submission of assignments or project will receive 25% off per day late from the final possible grade for the exercise unless authorized by the instructor.

Disability Statement: Students at UAlbany should contact the Disabled Student Services Center and the relevant professor at least a week before each F2F exam if requiring additional assistance. Missing any assessment without a verifiable legitimate excuse will result in a grade of zero. F2F Exams are expected to be closed-book unless otherwise specified and all personal electronic devices (laptops, cell phones, PDA's, etc.) should be put away.

Criteria	Outstanding 90-100	Proficient 80-89	Marginal 65-79	Unsatisfactory Less than 65
Content Critical Thinking	Comments/questions are thought provoking and display insight. They add to the depth of the discussion. Resources/citations are used to support comments or ideas.	Comments/questions are appropriate/ relative and add to the discussion, but may not always display insight or provoke thought. Resources/citations may be used to support comments or ideas.	Comments/questions are relative but do not add to the discussion or may show lack of insight. Resources/citations may be used to support comments or ideas.	Comments/questions are not relative to the case and do not add to the discussion. No references or citations are used.
Quantity Frequency	Minimally 14 postings on 7 different days.	Minimally 10 postings on 5 different days.	Minimally 6 postings on 3 different days	Less than 6 postings of fewer than 3 days of entries.

Timeliness	Comments are always made in time for others to read and respond.	Comments are almost always made in time for others to read and respond.	Comments are frequently made late in the discussion thread and give little time to respond.	Comments are made late in the discussion thread and give no time to respond.
Professionalism Mechanics	Always responds in a professional demeanor, considers others opinions; addresses group members; no grammar/ spelling errors.	Professional; addresses group members; minor spelling/ grammar errors.	May not always be professional; does not address group members; comments & responses have frequent spelling / grammar issues.	Unprofessional comments; very frequent spelling errors, or inappropriate terminology used.
Evaluation	Evaluation form has both positive and constructive criticism which supports the grade submitted.	Evaluation form has both positive and constructive criticism but does not necessarily support the grade submitted.	Evaluation form has a grade but does not have positive or constructive criticism.	No evaluation form submitted.

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BFOR 204 Fundamentals Information and Cyber Security (3 credits)

Course Prerequisite(s): BFOR 100 or Permission of the Instructor
Instructor(s): TBD
Developer(s): Sanjay Goel and Damira Pon

Sample Syllabus

COURSE DESCRIPTION

This course covers computer and network security. This course will examine general security concepts that include: communication security, infrastructure security, operation/organizational security, basic cryptography and steganography. Students will learn and apply de facto security best practices administering clients, servers and firewalls in a dedicated computer network laboratory. Students will have the opportunity to assess vulnerabilities and administrate Information Security. Offered spring semester only.

LEARNING OBJECTIVES

Overarching Goal: Understand information security infrastructure and the security risks to an organization

Sub-Objectives: Student will learn to

- Deploy and configure tools for ensuring network and data security
- Identify the attacks and the possible mechanisms of launching them
- Relate network threats to vulnerabilities in the TCP/IP network stack
- Apply cryptographic concepts to security e.g. confidentiality, integrity, availability
- Understand psychological emotions exploited by hackers for social engineering attacks.
- Read and Interpret log files

COURSE FORMAT: FACE-TO-FACE (F2F) ON-CAMPUS DELIVERY

The course will be offered in-class and include both lecture and hands-on laboratory components. In addition, learning will be supplemented with assigned readings or videos, discussions, and other assignments and exercises related to the course topics.

F2F Meeting Dates, Times, and Location: The class will be in a three hour session on campus with the location and time provided by the registrar for any specific semester.

INSTRUCTOR CONTACT

Type	Information	Availability
Email	goel@albany.edu	
Phone	518 956 8323	
In Person	BB 311	
Virtual Chat		

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COURSE RESOURCES

Type	Information
Course Website	TBD
Instructor Website	http://www.albany.edu/~goel
Textbook(s)	TBD
Reference Books(s)	TBD

COURSE ACTIVITIES

Lectures: Instructor-led lectures that may be supplemented with expert guest lectures on course-related topics will be offered in class. The lecture material should summarize and expand on the knowledge obtained from the assigned readings and assignments.

Video Clips: Video clips of lectures may be offered for portions of the class in case we use a flipped classroom approach for one or more lectures. This will feature PowerPoint content as well as the instructor video with subtitling and transcripts available. Purely audio versions of the content are also available for playing on personal media players, e.g. IPods. To play the video, you will need to download specific video player that will be provided to you.

Readings: Chapters, articles, or other readings assigned in the class are meant to supplement or reinforce the other course materials and will not generally have duplicate content.

Cases: Case studies using actual examples to provide real-world relevance to the topics in the class. The case(s) in this course will have several cases of accounting fraud such as at Citibank, WorldCom, etc.

Discussions: There will be a general discussion forum available for students to talk amongst themselves based on topics outside of class. Discussions topics will also be assigned and graded. The following criteria will be used for assessing discussions

Criteria	Outstanding 90-100	Proficient 80-90	Marginal 70-80	Unsatisfactory 0
Content Critical Thinking	Discussions/Comments/questions are thought provoking and display insight. They add to the depth of the discussion. Extensive use of resources to support comments or ideas.	Discussions/Comments/questions are appropriate/ relative and add to the discussion, but may not always display insight or provoke thought. Some use of resources to support comments or ideas.	Discussions/Comments/questions are relative but do not add to the discussion or may show lack of insight. Occasional use of resources to support comments or ideas.	Discussions/Comments/questions are not relative to the case and do not add to the discussion. No use of resources to support comments or ideas.

Assignments/Exercises: Students will receive several assignments during the course of the semester that will include homework, papers, and independent research

F2F Exams: These exams will be offered to assess individual content review and understanding. The content of these exams will be based on the lectures preceding the exam and will have multiple choice and essay questions. There will be 2 or 3 unit tests through the semester but final exam.

Project: An end-of-semester project will be assigned to groups of students the details of which will be provided during the class.

Hands-On Laboratories: Laboratory exercises will be offered where students get hands-on experience using tools and techniques in the field. Laboratory exercises take around 1 – 1 ½ hour to complete and will utilize classroom computer laboratories (in-class) or software available on the cloud that you can access with a personal computing device (online).

Participation: Course attendance is important part of building long-lasting relationships and a learning community between your peers and your instructors. Not only does it allow you to share your opinions on course topics, but also you benefit from your classmates' and instructor perspectives. Participation in the course could be measured with attendance, and/or in-class assignments.

Presentation: You (or group) will be expected to make a 20-minute presentation to the class Each person present should ask questions during the presentation and respond to assertions from the speaker. The grading will be done for both presentations and questions asked. The grading rubric is as follows:

- Presentation (70%) - Content 50% / Clarity, Coherence & Organization 20%
- Q&A (30%) - Question Relevance 10% / Articulation of Question 5% / Response to Questions 15%

An outstanding presentation needs to be factually accurate and on-topic. The information should cover the topic selected and should consider the background of the audience. The presentation should have a clear beginning, middle, and end. Introduction should contain an articulate, compelling statement of the topic and inform the audience of the key ideas to be discussed. Any claims should be well-supported and the ending should be strong and conclusive. The grading for questions will be done across all presentations. Individual students from the same team will be graded separately.

GRADING AND ASSESSMENT

We try to grade assignments fairly and return them within a reasonable time period with relevant comments and to be available to discuss questions. Students are expected to set up an appointment to talk with the grader within a week of receiving a grade. Please let us know if there is a mistake in calculation – mistakes happen!

Late assignments, projects, or papers will receive 15% off per day late from the final possible grade for the exercise unless there is a legitimate excuse.

Students at UAlbany should contact the Disabled Student Services Center and the relevant professor at least a week before each F2F exam if requiring additional assistance. Missing any assessment without a verifiable legitimate excuse will result in a grade of zero. F2F

Exams are expected to be closed-book unless otherwise specified and all personal electronic devices (laptops, cell phones, PDA's, etc.) should be put away.

ACTIVITY	PERCENTAGE OF GRADE
Participation	5%
Cases	15%
Assignments & Hands-On Laboratories	25%
Discussions	20%
Exam I	20%
Exam II	20%

Note: The instructor is expected to get approval of the entire class prior to making any changes regarding the grading rubric.

COURSE SCHEDULE	
Week	Course Activities
1	**Introduction & Networking Primer** Introduction to the Course Networking Fundamentals What is Information Security (CIA)? Why is Information Security Important? Adversaries: Motivations and Techniques
2	**Information Security Basics including Human Factors and Malware** What is Information Security (CIA)? Why is Information Security Important? Adversaries: Motivations and Techniques Social Engineering & Psychology Malware (Viruses, Worms, Spyware, Adware, Trojans) Email and Web Spoofing **Lab: Application Security Lab**
3	**Network Security Threats** IP Spoofing / Man-in-the-Middle Session Hijacking & Buffer Overflow Attacks Denial-Of-Service & Botnets ARP Cache / DNS Poisoning Wireless Security Protocols and Threats (MAC filtering) **Lab: Network Security Lab**
4	**Part A: Cryptography** Cryptography Basics Symmetric vs. Asymmetric Cryptographic Algorithms Symmetric Encryption Data Encryption Standard (DES), Triple DES, Advanced Encryption Standard Message Digests & Message Authentication Codes Public Key Infrastructure (PKI) Digital Signatures & Digital Certificates

5	**Web Application Security** N-tier Web Architecture Session Management & Web Authentication Threats, e.g. Code Injection, Cross-Site Scripting, etc. Buffer Overflow Attacks OWASP Testing & Review Procedures **Lab: SQL Injection Lab**
6	**Exam I**
7	**Authentication & Password Security** Password Storage & Authentication Password Security Threats & Controls Biometrics **Lab: Password Cracking**
8	**Authentication and Access Control** User Privileges / Access Classification Single Sign-On Security Models Role Based Access Control Remote Access (VPNs, etc.) **Case Analysis: TBD**
9	**Network Security Appliances & Assessment** Secure Network Design Firewalls and Intrusion Detection Systems (IDSs) Honeynets & Darknets Introduction to Network Log Analysis (SPLUNK) **Lab: Network Log Analysis**
10	-
11	**Security Standards & Legislation** - "Orange Book" - Russian State Technical Commission Guidance Documents - European General Provisions - USA Regulations (SOX, FERPA, FISMA, HIPAA, PCI) - ISO/IEC 17799:2005 - International Treaties **Case Analysis: Cyber Crime Treaty**
12	**Information Security Risk Analysis** - Basics of risk analysis - Risk Analysis methodology **Group Project: Risk Analysis of a Corporation**
13	**Exam II**
14	**Cyber Ethics**
15	**Group Presentations**

Spring

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

Title: BFOR 300 Databases for Digital Forensics (3 credits)
Course Prerequisite(s): BFOR 100 or Permission of the Instructor
Instructor(s): TBD
Developer(s): Sanjay Goel

Syllabus

COURSE DESCRIPTION

A large part of digital forensics deals with extraction and collection of data across electronic devices each of which has different architecture. In this class students learn the traditional relational database design and then understand the architecture of data storage in mobile electronic devices. The class also discusses in depth the storage of data on the cloud and the ramifications of that on digital forensics. Students also learn the basic techniques for analyzing data including use of Structured Query Language, data mining techniques and social network analysis. Students will also use scripting languages to efficiently clean up data from text files and extract information from files. Prerequisite(s): BFOR 100 or permission of instructor. Offered fall semester only.

LEARNING OBJECTIVES

Overarching Goal: Understand data storage and extraction across multiple devices

Sub-Objectives: Student will learn to

- Create relational databases
- Query information from relational databases
- Apply clustering and classification techniques to data
- Use scripting language to clean up data in text files
- Differentiate between storage on different devices

COURSE FORMAT: FACE-TO-FACE (F2F) ON-CAMPUS DELIVERY

The course will be offered in-class and include both lecture and hands-on laboratory components. In addition, learning will be supplemented with assigned readings or videos, discussions, and other assignments and exercises related to the course topics.

F2F Meeting Dates, Times, and Location: The class will be in a three hour session on campus with the location and time provided by the registrar for any specific semester.

INSTRUCTOR CONTACT

Type	Information	Availability
Email	goel@albany.edu	
Phone	518 956 8323	
In Person	BB 311	
Virtual Chat		

COURSE RESOURCES

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

Type	Information
Course Website	TBD
Instructor Website	http://www.albany.edu/~goel
Textbook(s)	TBD
Reference Books(s)	TBD

Syllabus

COURSE ACTIVITIES

Lectures: Instructor-led lectures that may be supplemented with expert guest lectures on course-related topics will be offered in class. The lecture material should summarize and expand on the knowledge obtained from the assigned readings and assignments.

Video Clips: Video clips of lectures may be offered for portions of the class in case we use a flipped classroom approach for one or more lectures. This will feature PowerPoint content as well as the instructor video with subtitling and transcripts available. Purely audio versions of the content are also available for playing on personal media players, e.g. IPods. To play the video, you will need to download specific video player that will be provided to you.

Readings: Chapters, articles, or other readings assigned in the class are meant to supplement or reinforce the other course materials and will not generally have duplicate content.

Cases: Case studies using actual examples to provide real-world relevance to the topics in the class. The case(s) in this course will have several cases of accounting fraud such as at Citibank, WorldCom, etc.

Discussions: There will be a general discussion forum available for students to talk amongst themselves based on topics outside of class. Discussions topics will also be assigned and graded. The following criteria will be used for assessing discussions

Criteria	Outstanding 90-100	Proficient 80-90	Marginal 70-80	Unsatisfactory 0
Content Critical Thinking	Discussions/Comments/questions are thought provoking and display insight. They add to the depth of the discussion. Extensive use of resources to support comments or ideas.	Discussions/Comments/questions are appropriate/ relative and add to the discussion, but may not always display insight or provoke thought. Some use of resources to support comments or ideas.	Discussions/Comments/questions are relative but do not add to the discussion or may show lack of insight. Occasional use of resources to support comments or ideas.	Discussions/Comments/questions are not relative to the case and do not add to the discussion. No use of resources to support comments or ideas.

Assignments/Exercises: Students will receive several assignments during the course of the semester that will include homework, papers, and independent research

F2F Exams: These exams will be offered to assess individual content review and understanding. The content of these exams will be based on the lectures preceding the exam and will have multiple choice and essay questions. There will be 2 or 3 unit tests through the semester but final exam.

Project: An end-of-semester project will be assigned to groups of students the details of which will be provided during the class.

Hands-On Laboratories: Laboratory exercises will be offered where students get hands-on experience using tools and techniques in the field. Laboratory exercises take around 1 – 1 ½ hour to complete and will utilize classroom computer laboratories (in-class) or software available on the cloud that you can access with a personal computing device (online).

Participation: Course attendance is important part of building long-lasting relationships and a learning community between your peers and your instructors. Not only does it allow you to share your opinions on course topics, but also you benefit from your classmates' and instructor perspectives. Participation in the course could be measured with attendance, and/or in-class assignments.

Presentation: You (or group) will be expected to make a 20-minute presentation to the class Each person present should ask questions during the presentation and respond to assertions from the speaker. The grading will be done for both presentations and questions asked. The grading rubric is as follows:

- Presentation (70%) - Content 50% / Clarity, Coherence & Organization 20%
- Q&A (30%) - Question Relevance 10% / Articulation of Question 5% / Response to Questions 15%

An outstanding presentation needs to be factually accurate and on-topic. The information should cover the topic selected and should consider the background of the audience. The presentation should have a clear beginning, middle, and end. Introduction should contain an articulate, compelling statement of the topic and inform the audience of the key ideas to be discussed. Any claims should be well-supported and the ending should be strong and conclusive. The grading for questions will be done across all presentations. Individual students from the same team will be graded separately.

GRADING AND ASSESSMENT

We try to grade assignments fairly and return them within a reasonable time period with relevant comments and to be available to discuss questions. Students are expected to set up an appointment to talk with the grader within a week of receiving a grade. Please let us know if there is a mistake in calculation – mistakes happen!

Late assignments, projects, or papers will receive 15% off per day late from the final possible grade for the exercise unless there is a legitimate excuse.

Students at UAlbany should contact the Disabled Student Services Center and the relevant professor at least a week before each F2F exam if requiring additional assistance. Missing any assessment without a verifiable legitimate excuse will result in a grade of zero. F2F

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UNIVERSITY AT ALBANY State University of New York

Exams are expected to be closed-book unless otherwise specified and all personal electronic devices (laptops, cell phones, PDA's, etc.) should be put away.

ACTIVITY	PERCENTAGE OF GRADE
Projects	35%
Assignments	15%
Exam I	25%
Exam II	25%

Note: The instructor is expected to get approval of the entire class prior to making any changes regarding the grading rubric.

COURSE SCHEDULE	
Week	Course Activities
1	**Introduction to the Course**
2	**Relational Database Design**
3	**SQL I**
4	**SQL 2**
5	**Advanced SQL**
6	**Exam I**
7	**Data sorting and searching using Unix Scripts**
8	**Clustering Techniques**
9	**Classification Techniques**
10	**Statistical Data Analysis**
11	**Social Network Analysis**
12	**Social Network Analysis**
13	**Exam II**
14	**Student Presentations/Projects**
15	**Student Presentations/Projects**

This schedule is subject to change and students are expected to be aware of any modifications to including, but not limited to: due dates, readings, exam dates, and project guidelines, announced via email, Blackboard announcements or during class hangouts.

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

#0000 – BACC 400 Forensic Accounting and Fraud Detection (3 credits)

Semester 0000 – Month 00, 0000 to Month 00, 0000
Course Prerequisite(s): BACC 211
Instructor(s):
Developer(s): Sanjay Goel

COURSE DESCRIPTION

This course provides an overview of occupational fraud including misappropriation of assets, financial statement fraud and corruption as well as other forensic accounting engagements such as tax fraud and matrimonial disputes. The course will explore the characteristics of specific fraud schemes along with the characteristics of those who perpetrate them (according to the Annual Report to the Nations compiled by the Association of Certified Fraud Examiners). Students will acquire an understanding of the generally accepted accounting principles violated by the schemes. Students will become versed in the principles of internal control over the financial reporting system including how these principles work to deter financial fraud and ensure compliance with external requirements. Relevant guidance from the professional, regulatory and legal environment will be discussed. Prerequisite(s): BACC 211. Offered fall semester only.

LEARNING OBJECTIVES

Overarching Goal: The course will teach students to detect and investigate accounting fraud

Sub-Objectives: Student will learn to

1. Analyze financial statements
2. Evaluate internal controls for accounting systems in an organization and identify gaps in controls
3. Detect accounting fraud and distinguish between different types of fraud
4. Investigate fraud cases to identify the perpetrators, evaluate the damage, and suggest controls to mitigate the risks of fraud
5. Analyze cases of fraud in organizations and write detailed reports backed by evidence

COURSE FORMAT: FACE-TO-FACE (F2F) ON-CAMPUS DELIVERY

The course will be offered in-class and include both lecture and hands-on laboratory components. In addition, learning will be supplemented with assigned readings or videos, discussions, and other assignments and exercises related to the course topics.

F2F Meeting Dates, Times, and Location: The class will be in a three hour session on campus with the location and time provided by the registrar for any specific semester.

INSTRUCTOR CONTACT

Type	Information	Availability
Email	goel@albany.edu	
Phone	518 956 8323	
In Person	BB 311	

Virtual Chat		

COURSE RESOURCES

Type	Information
Course Website	TBD
Instructor Website	http://www.albany.edu/~goel
Textbook(s)	TBD
Reference Books(s)	TBD

COURSE ACTIVITIES

Lectures: Instructor-led lectures that may be supplemented with expert guest lectures on course-related topics will be offered in class. The lecture material should summarize and expand on the knowledge obtained from the assigned readings and assignments.

Video Clips: Video clips of lectures may be offered for portions of the class in case we use a flipped classroom approach for one or more lectures. This will feature PowerPoint content as well as the instructor video with subtitling and transcripts available. Purely audio versions of the content are also available for playing on personal media players, e.g. IPods. To play the video, you will need to download specific video player that will be provided to you.

Readings: Chapters, articles, or other readings assigned in the class are meant to supplement or reinforce the other course materials and will not generally have duplicate content.

Cases: Case studies using actual examples to provide real-world relevance to the topics in the class. The case(s) in this course will have several cases of accounting fraud such as at Citibank, WorldCom, etc.

Discussions: There will be a general discussion forum available for students to talk amongst themselves based on topics outside of class. Discussions topics will also be assigned and graded. The following criteria will be used for assessing discussions

Criteria	Outstanding 90-100	Proficient 80-89	Marginal 70-79	Unsatisfactory 0-69

Content Critical Thinking	Discussions/Comments/questions are thought provoking and display insight. They add to the depth of the discussion. Extensive use of resources to support comments or ideas.	Discussions/Comments/questions are appropriate/ relative and add to the discussion, but may not always display insight or provoke thought. Some use of resources to support comments or ideas.	Discussions/Comments/questions are relative but do not add to the discussion or may show lack of insight. Occasional use of resources to support comments or ideas.	Discussions/Comments/questions are not relative to the case and do not add to the discussion. No use of resources to support comments or ideas.

Assignments/Exercises: Students will receive several assignments during the course of the semester that will include homework, papers, and independent research

F2F Exams: These exams will be offered to assess individual content review and understanding. The content of these exams will be based on the lectures preceding the exam and will have multiple choice and essay questions. There will be 2 or 3 unit tests through the semester but final exam.

Project: An end-of-semester project will be assigned to groups of students the details of which will be provided during the class.

Hands-On Laboratories: Laboratory exercises will be offered where students get hands-on experience using tools and techniques in the field. Laboratory exercises take around 1 – 1 ½ hour to complete and will utilize classroom computer laboratories (in-class) or software available on the cloud that you can access with a personal computing device (online).

Participation: Course attendance is important part of building long-lasting relationships and a learning community between your peers and your instructors. Not only does it allow you to share your opinions on course topics, but also you benefit from your classmates' and instructor perspectives. Participation in the course could be measured with attendance, and/or in-class assignments.

Presentation: You (or group) will be expected to make a 20-minute presentation to the class Each person present should ask questions during the presentation and respond to assertions from the speaker. The grading will be done for both presentations and questions asked. The grading rubric is as follows:

- Presentation (70%) - Content 50% / Clarity, Coherence & Organization 20%
- Q&A (30%) - Question Relevance 10% / Articulation of Question 5% / Response to Questions 15%

An outstanding presentation needs to be factually accurate and on-topic. The information should cover the topic selected and should consider the background of the audience. The presentation should have a clear beginning, middle, and end. Introduction should contain an articulate, compelling statement of the topic and inform the audience of the key ideas to be discussed. Any claims should be well-supported and the ending should be strong and conclusive. The grading for questions will be done across all presentations. Individual students from the same team will be graded separately.

GRADING AND ASSESSMENT

We try to grade assignments fairly and return them within a reasonable time period with relevant comments and to be available to discuss questions. Students are expected to set up an appointment to talk with the grader within a week of receiving a grade. Please let us know if there is a mistake in calculation – mistakes happen!

Late assignments, projects, or papers will receive 15% off per day late from the final possible grade for the exercise unless there is a legitimate excuse.

Students at UAlbany should contact the Disabled Student Services Center and the relevant professor at least a week before each F2F exam if requiring additional assistance. Missing any assessment without a verifiable legitimate excuse will result in a grade of zero. F2F Exams are expected to be closed-book unless otherwise specified and all personal electronic devices (laptops, cell phones, PDA's, etc.) should be put away.

ACTIVITY	PERCENTAGE OF GRADE
Participation	5%
Cases	15%
Assignments & Hands-On Laboratories	20%
Discussions	20%
Exam I	20%
Exam II	20%

Note: The instructor is expected to get approval of the entire class prior to making any changes regarding the grading rubric.

COURSE SCHEDULE	
Week	Course Activities
1	**Introduction to Forensic Investigative Techniques**
2	**Financial Statement Analysis**
3	**Internal Controls**
4	**Auditing**
5	**Forensic Accounting & Legislation**
6	**Exam I**
7	**Misappropriation of Assets (Including case)**

8	**Indirect methods of Restructuring Income: Money Laundering & Transnational Financial Flows (Including case)**
9	**Revenue Fraud (including case)**
10	**Inventory Fraud (including case)**
11	**Fraud on Reserves (including case)**
12	**Business Valuation and Damages (including case)**
13	**Exam II**
14	**Occupation/Employee Fraud (misreporting time/use of company resources etc.) Guest Lecture**
15	**TBD**

This schedule is subject to change and students are expected to be aware of any modifications to including, but not limited to: due dates, readings, exam dates, and project guidelines, announced via email, Blackboard announcements or during class hangouts.

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

Course ID: BFOR 301

Course Name: Computer Forensics I

Credit Hours: **3**
Semester: **TBA**
Instructor: **Fabio R. Auffant II**
Course Prerequisite(s): **BFOR 201 or permission of instructor**
Textbook: **TBA**

COURSE DESCRIPTION

This course prepares students to conduct digital forensic examination of computers, removable media and other electronic devices. Students will use digital forensics tools and techniques to analyze digital evidence pursuant to an investigation, while utilizing industry standards and best practices. This course will prepare student in the development and implementation of forensic incident response plans, policies and procedures. Students will engage in oral and written reporting outlining digital forensic analysis findings and conclusions, in a professionally acceptable manner, pursuant to administrative, civil and criminal legal proceedings. Prerequisite(s): BFOR 201 or permission of instructor. Offered fall semester only.

LEARNING OBJECTIVES

After completing this class the student should be able to:

- Prepare digital forensics incident response plan, policies and procedures for businesses, government and independent practitioners, consistent with standards.
- Utilize computer forensic tools to analyze computer digital evidence.
- Perform forensic analysis of removable media digital evidence.
- Prepare written & oral presentations derived from computer forensic analysis.

COURSE FORMAT

Online or Classroom: The course may be offered online to offer a more flexible learning experience, through classroom delivery to ensure hands-on experience of forensic tools and techniques, or a combination of online and classroom environments. Students are provided with an interactive learning environment through instructor audio lesson plans, online discussion groups, and other learning assessments. Even though the course is spread over several weeks, it is important that students stay on schedule so that they can participate with other students in discussions. The class should require approximately 120 hours of work including instruction audio of lecture material, student assignments, quizzes, discussion postings, and the reading of the class textbook, as well as external publications.

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

INSTRUCTOR CONTACT

Type	Information	Availability
Email	fauffant@albany.edu	Dates and times TBA
Virtual	Via Skype, TBA in class	Dates and times TBA

COURSE RESOURCES

Course Website	
Reference Material and External Readings	To be posted by instructor during course activities
Technical Support	

COURSE OUTLINE

Week	Topic	Activities
1	Computer Basics for Digital Investigators	Class Discussion
2	Digital Forensics Best Practices, Standards & Reporting	Assignment
3	Incident Response & Forensic Hardware/Software Tools	Assignment
4	Forensic Analysis of Windows ® Systems	Assignment
5	Forensic Analysis of Other Operating Systems	Assignment
6	**MID-TERM EXAM**	
7	ProDiscover ® Forensic Case Analysis	Lab Exercise
8	EnCase ® Forensic Case Analysis	Lab Exercise
9	FTK ® Forensic Case Analysis – Password Recovery	Lab Exercise
10	FTK ® Forensic Case Analysis – Registry	Lab Exercise
11	FTK ® Forensic Case Analysis – Encryption	Lab Exercise
12	Forensic Mock Case Reporting	Assignment
13	**COURSE PROJECT**	Student Presentations
14	**FINAL EXAM**	

COURSE ACTIVITIES

Lab Exercises: Lab Exercises will also be assigned and graded by the instructor. Students will be required to complete Lab Exercises and submit to the instructor by specific date(s) and grading assessment will be based on the analysis of sample data and satisfactory completion of forensic reports.

Assignments: Assignments will be assigned and graded by the instructor and will be based on the weekly discussion topic(s). Students will be required to complete and submit to the instructor by specific date(s) and grading assessment will be based on acceptable grammar, terminology, formatting and substantive content.

Project: Course project will be assigned and graded by the instructor, based on individual and/or group assignments. Students will be required to complete and submit to the instructor by a specific date for grading and assessment.

GRADING AND ASSESSMENT

We try to grade assignments fairly and return them within a reasonable time period with relevant comments and to be available to discuss questions. Students are expected to set up an appointment to talk with the grader within a week of receiving a grade. Please let us know if there is a mistake in calculation – mistakes happen!

Late assignments, projects, or papers will receive 25% off per day late from the final possible grade for the exercise unless authorized by the instructor.

Students at UAlbany should contact the Disabled Student Services Center and the relevant professor at least a week before each F2F exam if requiring additional assistance. Missing any assessment without a verifiable legitimate excuse will result in a grade of zero. F2F Exams are expected to be closed-book unless otherwise specified and all personal electronic devices (laptops, cell phones, PDA's, etc.) should be put away.

Activity	Portion of Grade	Description
Assignments	25%	
Lab Exercises	25%	
Project	20%	
Exams	30%	

Overall Accumulative Point Evaluation:

Point Range	**Letter Grade**
97-100	**(A)**
91-96	**(A-)**
86-90	**(B+)**
81-85	**(B)**
76-80	**(B-)**
71-75	**(C+)**
66-70	**(C)**
63-65	**(C-)**
60-62	**(D)**
Below 60	**(E)**

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

Course ID: BFOR 303

Course Name: Computer Forensics II

Credit Hours: **3**
Semester: **TBA**
Instructor: **Fabio R. Auffant II**
Course Prerequisite(s): **BFOR 301 or permission of instructor**
Textbook: **TBA**

COURSE DESCRIPTION

This course prepares students to conduct a digital forensic examination and analysis involving complex cases, electronic devices and data, as well as other forensic processes utilized to ensure government and corporate continuity. This course will prepare student to develop and implement policies and procedures for computer forensic laboratories involving operations and quality control management. It prepares students to compose and present oral and written reports that include laboratory audits, forensic analysis findings and court presentation material.
Prerequisite(s): BFOR 301 or permission of instructor. Offered spring semester only.

LEARNING OBJECTIVES

After completing this class the student should be able to:

- Utilize forensic tools and techniques to examine and analyze complex computer evidence.
- Perform other forensic processes to properly cleanse, restore and archive digital evidence.
- Prepare policies and procedures for managing digital forensic laboratory operations.
- Prepare written & oral presentations derived from complex digital evidence forensic analysis and laboratory operations.

COURSE FORMAT

Online or Classroom: The course may be offered solely online to offer a more flexible learning experience or through classroom delivery to ensure hands-on experience of mobile device hardware. This may be your first experience with an online / Internet course and it is important to recognize the differences with a face-to-face classroom experience. Students are provided with an interactive learning environment through instructor audio lesson plans, online discussion groups, and other learning assessments. Even though the course is spread over several weeks, it is important that students stay on schedule so that they can participate with other students in discussions. The class should require approximately 120 hours of work including instruction audio of lecture material, student assignments, quizzes, discussion postings, and the reading of the class textbook, as well as external publications.

INSTRUCTOR CONTACT

Type	Information	Availability
Email		Dates and times TBA

Virtual		Dates and times TBA

COURSE RESOURCES

Course Website	
Reference Material and External Readings	To be posted by instructor during course activities
Technical Support	

COURSE OUTLINE

Week	Topic	Activities
1	Digital Forensics Laboratory Standards	Class Discussion
2	Development of Laboratory SOP's	Assignment
3	Quality Control & Assurance Forensic Standards	Assignment
4	Development of a Laboratory QC/QA Manual	Assignment
5	Laboratory Internal Training Standards	Assignment
6	Development of an Internal Training Program	Assignment
7	**MID TERM EXAM**	
8	Complex Device Analysis, Data Carving & GREP Expression Searching	Lab Exercise
9	Secure Cleansing & Forensic Restoration of Media	Lab Exercise
10	Logical Restoration and Archival of Digital Evidence	Lab Exercise
11	Forensic Analysis Reporting & Presentation	Lab Exercise
12	Preparation of Court Presentation Material	Lab Exercise
13	**COURSE PROJECT**	Student Presentations
14	**FINAL EXAM**	

COURSE ACTIVITIES

Lab Exercises: Lab Exercises will also be assigned and graded by the instructor. Students will be required to complete Lab Exercises and submit to the instructor by specific date(s) and grading assessment will be based on the analysis of sample data and satisfactory completion of forensic reports.

Assignments: Assignments will be assigned and graded by the instructor and will be based on the weekly discussion topic(s). Students will be required to complete and submit to the instructor by specific date(s) and grading assessment will be based on acceptable grammar, terminology, formatting and substantive content.

Project: Course project will be assigned and graded by the instructor, based on individual and/or group assignments. Students will be required to complete and submit to the instructor by a specific date for grading and assessment.

GRADING AND ASSESSMENT

We try to grade assignments fairly and return them within a reasonable time period with relevant comments and to be available to discuss questions. Students are expected to set up an appointment to talk with the grader within a week of receiving a grade. Please let us know if there is a mistake in calculation – mistakes happen!

Late assignments, projects, or papers will receive 25% off per day late from the final possible grade for the exercise unless authorized by the instructor.

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Activity	Portion of Grade	Description
Assignments	25%	
Lab Exercises	25%	
Project	20%	
Exams	30%	

Overall Accumulative Point Evaluation:

Point Range	**Letter Grade**
97-100	**(A)**
91-96	**(A-)**
86-90	**(B+)**
81-85	**(B)**
76-80	**(B-)**
71-75	**(C+)**
66-70	**(C)**
63-65	**(C-)**
60-62	**(D)**
Below 60	**(E)**

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

Course ID: BFOR 304

Course Name: Network and Mobile Forensics

Credit Hours: **3**
Semester: **TBA**
Instructor: **TBA**
Course Prerequisite(s): **BFOR 203 & BFOR 301**
Textbook: **TBA**

COURSE DESCRIPTION

This course exposes students to procedures for conducting live network forensics of computer system components and data. It prepares students to collect, preserve, and examines networks, computers, mobile devices and relevant data that may be critical to an investigation. Students will develop network incident response plans, policies and procedures relevant to corporate networks and data, as well as mobile corporate assets, such as mobile devices. It prepares students to compose and present oral and written reports that outline network and mobile device forensic analysis findings that are technically and legally acceptable in administrative hearings and court proceedings. Prerequisite(s): BFOR 203 & BFOR 301. Offered spring semester only.

LEARNING OBJECTIVES

After completing this class the student should be able to:

- Identify federal and state legal statutes, case law and government regulations relevant to network data preservation and incident forensic response.
- Utilize proper tools and methods for collecting & preserving network and mobile device hardware, and potential digital evidence.
- Prepare network cyber incident & forensics response plan, policy and procedures, consistent with industry standards.
- Prepare written & oral presentations derived from network and mobile device analysis.

COURSE FORMAT

Online or Classroom: The course may be offered solely online to offer a more flexible learning experience or through classroom delivery to ensure hands-on experience of mobile device hardware. This may be your first experience with an online / Internet course and it is important to recognize the differences with a face-to-face classroom experience. Students are provided with an interactive learning environment through instructor audio lesson plans, online discussion groups, and other learning assessments. Even though the course is spread over several weeks, it is important that students stay on schedule so that they can participate with other students in discussions. The class should require approximately 120 hours of work including instruction audio of lecture material, student assignments, quizzes, discussion postings, and the reading of the class textbook, as well as external publications.

INSTRUCTOR CONTACT

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

Type	Information	Availability
Email		Dates and times TBA
Virtual		Dates and times TBA

COURSE RESOURCES

Course Website	
Reference Material and External Readings	To be posted by instructor during course activities
Technical Support	

COURSE OUTLINE

Week	Topic	Activities
1	Networking Storage & Management Essentials	Class Discussion
2	Network Forensics Guidelines & Standards	Assignment
3	Incident Response Planning & Standards	Assignment
4	Network Analysis Reporting	Assignment
5	Network Collection & Preservation Tools	Assignment
6	Collection & Preservation of Network Data	Lab Exercise
7	**MID-TERM EXAM**	
8	EnCase ® Network Forensic Analysis	Lab Exercise
9	FTK ® Network Forensic Analysis	Lab Exercise
10	Mobile Device Concepts & Terminology	Assignment
11	Mobile Device Forensics Hardware & Software	Lab Exercise
12	Mobile Device Forensic Analysis	Lab Exercise
13	**COURSE PROJECT**	
14	**FINAL EXAM**	

COURSE ACTIVITIES

Lab Exercises: Lab Exercises will also be assigned and graded by the instructor. Students will be required to complete Lab Exercises and submit to the instructor by specific date(s) and grading assessment will be based on the analysis of sample data and satisfactory completion of forensic reports.

Assignments: Assignments will be assigned and graded by the instructor and will be based on the weekly discussion topic(s). Students will be required to complete and submit to the instructor by specific date(s) and grading assessment will be based on acceptable grammar, terminology, formatting and substantive content.

Project: Course project will be assigned and graded by the instructor, based on individual and/or group assignments. Students will be required to complete and submit to the instructor by a specific date for grading and assessment.

GRADING AND ASSESSMENT

We try to grade assignments fairly and return them within a reasonable time period with relevant comments and to be available to discuss questions. Students are expected to set up an appointment to talk with the grader within a week of receiving a grade. Please let us know if there is a mistake in calculation – mistakes happen!

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Students at UAlbany should contact the Disabled Student Services Center and the relevant professor at least a week before each F2F exam if requiring additional assistance. Missing any assessment without a verifiable legitimate excuse will result in a grade of zero. F2F Exams are expected to be closed-book unless otherwise specified and all personal electronic devices (laptops, cell phones, PDA's, etc.) should be put away.

Activity	Portion of Grade	Description
Assignments	25%	
Lab Exercises	25%	
Project	20%	
Exams	30%	

Overall Accumulative Point Evaluation:

Point Range	**Letter Grade**
97-100	**(A)**
91-96	**(A-)**
86-90	**(B+)**
81-85	**(B)**
76-80	**(B-)**
71-75	**(C+)**
66-70	**(C)**
63-65	**(C-)**
60-62	**(D)**
Below 60	**(E)**

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

Course ID: BACC 401

Course Name: Forensic Accounting Investigative Techniques

Credit Hours: **3**

Semester: **Spring 2014**

Course Prerequisite(s): **BACC 400**

INSTRUCTOR CONTACT INFORMATION

Instructor	Yuan Hong
Email	hong@albany.edu
Office Location	BB (New Business School)-316
Office Hours	Monday 3:00-5:00PM or by Appointment

COURSE DESCRIPTION

Students will learn the process and principal techniques for conducting fraud examinations and other forensic investigations as well as why careful attention to them is critical to a successful investigation. Students will learn the role of analytical review procedures in the investigation of financial fraud. Document analysis and the art of effective interviewing during investigations will be explored. Students will learn the proper procedures for evidence handling. Finally students will learn to write a report that succinctly and effectively communicates the completed investigation. Relevant guidance from the professional, regulatory and legal environment will be discussed. Prerequisite(s): BACC 400. Offered spring semester only.

LEARNING OBJECTIVES

After successfully completing this course, the student should be able to:

- Articulate the process of forensic investigation and fraud examination.
- Utilize effective analytical techniques conduct forensic investigation and fraud examination.
- Demonstrate effective interviewing techniques in a forensic investigation and fraud examination
- Prepare a written investigation report for a specific engagement.

COURSE STRUCTURE

This course is offered as a combination of lectures, case study, and hands-on experience of forensic accounting and audit tools/software. In some classes, case study and discussion are conducted by the instructor. Also, forensic and fraud examination tools/software are introduced after giving the lecture. The instructor will teach hands-on forensic and fraud examination techniques and students are expected to finish the in-class exercises. Students should be interactively involved in the class activities.

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

COURSE RESOURCES

Course Website	Blackboard (https://blackboard.albany.edu/)
Textbooks	Not Required
Software	ACL, R, WEKA, SPLICE, Palantir
Reference Materials	To be posted on the Blackboard prior to each class

GRADING POLICY AND ASSESSMENT

Activity	Portion of Grade
Class Participation	15%
Assignments	25%
Group Project	20%
Exams	40%

Class Participation: The instructor expects students to actively participate in the class discussion. Critical thinking and learning to express opinions in a group setting is critical to everyone's success as a professional. Although this level of participation may initially be outside the students' comfort zone, remember that the instructor and students are on the same team in the learning process, and that they will be dealing with many issues that lack a right answer. Daily class activities provide important feedback to the instructor about how much students know about the subject matter and their levels of effort and preparation.

Case study is offered in some classes, which is essential for students to foster critical thinking and learn analytical skills in an interactive environment. Students are highly encouraged to deliver their ideas in case study.

Assignments: There will be several individual assignments throughout the semester. The assignments will require students to do some analytic tasks using the tools and methods covered in class, and/or complete the report of fraud examination. All homework assignments must be prepared using a word processor. They should be uploaded to Blackboard by the specific due date(s).

Group Project: A group project will be performed with delivery during the last few weeks of this course. The project is a comprehensive work that covers all the procedures of the fraud investigation and also fosters students' teamwork ability in practical fraud examination. The group can be gathered voluntarily and each group includes 3-5 students. The topic will be assigned earlier. Each group should present their work and submits the summary (only one copy is required for each group) in the week before the finals week.

Exams: Students are required to take both Midterm and Final exams. The Midterm covers the contents of the first 6 classes and the final exam covers everything from Week 1-13. For exams,

students will be responsible for the material covered in the lecture slides, projects and class discussions. In case you cannot attend the exam(s) on the scheduled date(s), a proof with appropriate excuse should be shown to the instructor. Otherwise, a make-up exam cannot be authorized.

Grading: The instructor will try to grade assignments, projects and exams fairly and return them within a reasonable time period with relevant comments and to be available to discuss questions. Students are encouraged to setup an appointment to talk with the grader within a week of receiving a grade.

Late Submission: Late assignments and project will receive 25% off per day late from the final possible grade for the exercise unless authorized by the instructor.

Disability Statement: Students at UAlbany should contact the Disabled Student Services Center and the relevant professor at least a week before each F2F exam if requiring additional assistance. Missing any assessment without a verifiable legitimate excuse will result in a grade of zero. F2F Exams are expected to be closed-book unless otherwise specified and all personal electronic devices (laptops, cell phones, PDA's, etc.) should be put away.

COURSE OUTLINE

Week	Topic	Comments
1	Introduction to Forensic Accounting and Fraud Examination	
2	Preliminary Data Analysis for Audit: Software/Tools, Descriptive Statistics, Data Visualization and Basic Analysis	R and ACL Assignment 1
3	Data Analytics Techniques I: Classification, Clustering	WEKA
4	Data Analytics Techniques II: Numeric Data Analysis, Text Mining	Text Mining Tool (SPLICE)
5	Fraud Examination Evidence I: Physical, Documentary and Observational Evidence	U.S. Food Service Case Study
6	Fraud Examination Evidence II: Interview and Interrogation Methods	Perplexed Payroll Clerk Case Study
7	**MIDTERM**	
8	Fraud Examination Evidence III: Forensic Science and Computer Forensics	Banking Industry Case Study
9	The Fraud Report, Litigation, and the Recovery Process	Assignment 2

10	Documenting and Presenting the Case	
11	Fraud Preventive Controls and Risk Management	
12	Predictive Audit I: Regression	R
13	Predictive Audit II: Expert System	Assignment 3
14	**FINAL EXAM**	

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

Course ID: BFOR 401W

Course Name: Advanced Digital Forensics

Credit Hours: **4**
Semester: **TBA**
Instructor: **Fabio R. Auffant II**
Course Prerequisite(s): **BFOR 302, BFOR 303 & BFOR 304**
Textbook: **TBA**

COURSE DESCRIPTION

Instructor will guide students through proficiency testing by utilizing digital forensic skills obtained in previous coursework to develop an incident response plan to guide a forensic investigation. Based on case-study scenario, student will also conduct forensic analysis of several items of digital evidence, preparing comprehensive written forensic laboratory reports and present findings to a panel of legal, forensics and management subject matter experts for constructive feedback. Students will also prepare exhibits and other materials for court presentation purposes based on the case-study scenario, forensic analysis findings and written laboratory reports. Instructor will conduct quality control assessments to ensure students are performing forensic analysis that is in compliance with industry standards guiding forensic and laboratory work environments Prerequisite(s): BFOR 302, BFOR 303, and BFOR 304. Offered fall semester only.

LEARNING OBJECTIVES

After completing this class the student should be able to:

- Develop incident response and forensic examination plan in support of case-based scenario.
- Utilize the skills obtained in previous coursework to perform forensic analysis of multiple items of digital evidence in support of case-based scenario.
- Utilize the skills obtained in previous coursework to prepare a comprehensive written report and present forensic findings to a panel of subject matter experts.
- Understand quality control audits and assessments relevant to forensic and laboratory management.
- Based on the case scenario, prepare court-related presentation materials, documents and exhibits in support of case-bases scenario.

COURSE FORMAT

Classroom Only: The course will be offered solely in classroom environment to ensure academic integrity and provide guidance and support by course instructor. Even though the course is spread over several weeks, it is important that students stay on schedule so that they can participate with other students in discussions. Students would be evaluated on their ability to perform forensic analysis with minimal supervision and to ensure students arrive at forensically valid analysis conclusions. The class should require approximately 120 hours of work including instruction audio of lecture material, student assignments, discussion postings, and the reading of the class textbook, as well as external publications.

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

SYLLABUS

INSTRUCTOR CONTACT

Type	Information	Availability
Email		Dates and times TBA
Virtual		Dates and times TBA

COURSE RESOURCES

Course Website	
Reference Material and External Readings	To be posted by instructor during course activities
Technical Support	

COURSE OUTLINE

Week	Topic	Activities
1	Case-Based Scenario & Project Review	Class Discussion
2	Incident & forensic examination planning	Assignment
3	Federal Rules of Evidence	Lab Exercise
4	Federal Rules of Criminal Procedure	Assignment
5	Advanced Digital Forensics Techniques – Disks	Lab Exercise
6	Advanced Digital Forensics Techniques – Media	Assignment
7	**COURSE PROJECT PROGRESS REPORT**	Student Presentations
8	Quality Control ISO Auditing	Lab Exercise
9	Quality Control ASCLD/LAB Auditing	Assignment
10	Preparing a Forensics-Oriented Curriculum Vitae	Lab Exercise
11	Preparing Court Exhibits and Documents	Assignment
12	Presenting forensically accurate analysis findings	Lab Exercise
13	**COURSE PROJECT**	Student Presentations
14	**FINAL EXAM**	

COURSE ACTIVITIES

Lab Exercises: Lab Exercises will also be assigned and graded by the instructor. Students will be required to complete Lab Exercises and submit to the instructor by specific date(s) and grading assessment will be based on the analysis of sample data and satisfactory completion of forensic reports.

Assignments: Assignments will be assigned and graded by the instructor and will be based on the weekly discussion topic(s). Students will be required to complete and submit to the instructor by specific date(s) and grading assessment will be based on acceptable grammar, terminology, formatting and substantive content.

Project: Course project will be assigned and graded by the instructor, based on individual and/or group assignments. Students will be required to complete and submit to the instructor by a specific date for grading and assessment.

GRADING AND ASSESSMENT

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Activity	Portion of Grade	Description
Assignments	20%	
Lab Exercises	20%	
Project	40%	
Exam	20%	

Overall Accumulative Point Evaluation:

Point Range	**Letter Grade**
97-100	**(A)**
91-96	**(A-)**
86-90	**(B+)**
81-85	**(B)**
76-80	**(B-)**
71-75	**(C+)**
66-70	**(C)**
63-65	**(C-)**
60-62	**(D)**
Below 60	**(E)**

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

Course ID: BFOR 402

Course Name: Digital Forensics Mock Trial

Credit Hours: 4

Semester: **TBA**
Instructor: **TBA**
Course Prerequisite(s): **BFOR 302, BFOR 303, BFOR 304 & BFOR 401W**
(BFOR 401W may be taken concurrently**)**
Textbook: **TBA**

COURSE DESCRIPTION

This is a capstone course where students will learn how to provide expert testimony as a part of presenting their findings from completion of an advanced level digital forensic analysis. Students will learn how to prepare for and give expert witness testimony related to digital evidence, including how to deal with opposing counsel cross-examinations and how to effectively relay such information to a jury. Students will engage in a "mock" court grand jury, suppression hearing, and trial proceedings. Panel of subject matter experts from the legal, forensic and management fields will assist in the guidance and constructive feedback of students participating in "mock" court proceedings. Instructor will assess student's competence in providing a technical testimony to a group of non-technical listeners, such as judges, juries, as well as administrative and human resource officers. Prerequisite(s): BFOR 302, BFOR 303, BFOR 304 and BFOR 401W (BFOR 401W may be taken concurrently). Offered spring semester only.

LEARNING OBJECTIVES

After completing this class the student should be able to:

- Become familiar with civil and criminal legal proceedings and courtrooms.
- Prepare for legal proceedings and testimony associated with digital forensics.
- Effectively engage in pre-testimony proceedings with legal counsel.
- Effectively provide testimony during direct and cross examination.
- Prepare court exhibits derived from digital forensics analysis and lab reports.

COURSE FORMAT

Classroom Only: The course will be offered solely in classroom environment to ensure academic integrity and provide guidance and support by course instructor. Even though the course is spread over several weeks, it is important that students stay on schedule so that they can participate with other students in discussions. Students would be evaluated on their ability to perform forensic analysis with minimal supervision and to ensure students arrive at forensically valid analysis conclusions. The class should require approximately 120 hours of work including instruction audio of lecture material, student assignments, discussion postings, and the reading of the class textbook, as well as external publications.

SCHOOL OF BUSINESS
UNIVERSITY AT ALBANY State University of New York

INSTRUCTOR CONTACT

Type	Information	Availability
Email		Dates and times TBA
Virtual		Dates and times TBA

COURSE RESOURCES

Course Website	
Reference Material and External Readings	To be posted by instructor during course activities
Technical Support	

COURSE OUTLINE

Week	Topic	Activities
1	Professional Ethics in Legal Proceedings	Class Discussion
2	Federal Rules of Civil Procedures	Assignment
3	Federal Rules of Criminal Procedures	Assignment
4	Establishing a Chain of Custody Foundation	Assignment
5	Establishing Expert Witness Credentials	Assignment
6	Establishing a Scientific and Forensic Foundation	Assignment
7	**MID TERM EXAM**	
8	Testifying in Grand Jury Proceedings	Lab Exercise
9	Testifying in Suppression Hearings	Lab Exercise
10	Testifying in Direct Examination	Lab Exercise
11	Testifying in Cross Examination	Lab Exercise
12	Preparing Digital Evidence Court Exhibits	Lab Exercise
13	MOOT COURT	Student Participation
14	MOOT COURT	Student Participation

COURSE ACTIVITIES

Lab Exercises: Lab Exercises will also be assigned and graded by the instructor. Students will be required to complete Lab Exercises and submit to the instructor by specific date(s) and grading assessment will be based on the analysis of sample data and satisfactory completion of forensic reports.

Assignments: Assignments will be assigned and graded by the instructor and will be based on the weekly discussion topic(s). Students will be required to complete and submit to the instructor by specific date(s) and grading assessment will be based on acceptable grammar, terminology, formatting and substantive content.

Project: Course project will be assigned and graded by the instructor, based on individual and/or group assignments. Students will be required to complete and submit to the instructor by a specific date for grading and assessment.

GRADING AND ASSESSMENT

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Activity	Portion of Grade	Description
Assignments	20%	
Lab Exercises	20%	
Project – Moot Court	40%	
Exam	20%	

Overall Accumulative Point Evaluation:

Point Range	**Letter Grade**
97-100	**(A)**
91-96	**(A-)**
86-90	**(B+)**
81-85	**(B)**
76-80	**(B-)**
71-75	**(C+)**
66-70	**(C)**
63-65	**(C-)**
60-62	**(D)**
Below 60	**(E)**

Appendix 5

Position descriptions for faculty to-be-hired

HIRING PLAN FOR B.S. DIGITAL FORENSICS

Description of the proposed hire(s), addressing expected excellence to be achieved in research, scholarly, creative, and/or instructional work

The following are hires planned for the next 2 years.

Nature / Level of Appointment	Area	Department(s)	Timing of Hires
Tenure-track Assistant Professor (TBH1)*	Forensics & Criminal Justice	Criminal Justice / Info. Tech. Mgt.	Fall 2014
Tenure-track Assistant Professor (TBH2)*	Digital Forensics	Info. Tech. Mgt.	Fall 2014
Tenure-track Assistant Professor (TBH3)	Cyber International Relations	Political Sci. / Info. Tech. Mgt.	Fall 2015
Tenure-track Assistant Professor (TBH4)	Image Forensics	Computer Sci. / Info. Tech. Mgt.	Fall 2015

** Job announcements are available.*

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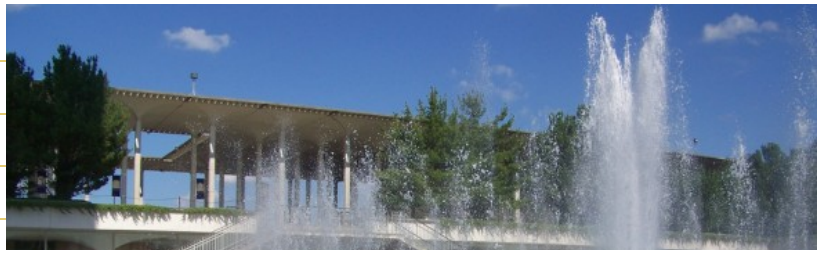

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Digital Forensics - Assistant Professor

About University at Albany:

Established in 1844 and designated a University Center of the State University of New York in 1962, the University at Albany's broad mission of excellence in undergraduate and graduate education, research and public service engages a diverse student body of more than 17,300 students in nine schools and colleges across three campuses.

Located in Albany, New York, New York State's capital, the University is convenient to Boston, New York City and the Adirondacks.

Apply Now

Category:	Faculty
Department:	Information Technology Management, School of Business
Locations:	Albany, NY
Posted:	Nov 26, '13
Type:	Full-time
Ref. No.:	P13-32856

E-mail to a friend

Job Description:

The School of Business of the University at Albany, State University of New York, invites applications for a tenure track Assistant Professor in Digital Forensics beginning Fall 2014. The successful candidate will be expected to complement the existing strengths of those involved in the intended undergraduate Digital Forensics major. This position is part of a bold multi-year "2020 initiative" to implement an undergraduate Digital Forensics major, featuring both face-to-face and online learning.

This is a 10-month appointment that allows for supplementary summer salary from research funding. The normal teaching load is two courses per semester for faculty who work with graduate students and who are research active (before course buyouts). We expect new faculty to strengthen our majors, strengthen our undergraduate program, and strengthen the University mission through: (i) teaching with distinction, (ii) maintaining a strong externally funded research program, (iii) effectively mentoring graduate students, and (iv) participating in, as necessary, service to the department, college, university and community.

Requirements:

Applicants should expect to have a Ph.D. from a college or university accredited by a U.S. Department of Education or internationally recognized accrediting organization in Information Technology Management, Computer Science, Informatics or a closely related discipline by September 2014. We will consider exceptional candidates who expect to defend and complete their dissertation work in fall 2014.

The candidate should have a strong background in the area of digital forensics. Expertise in creating and evaluating forensics procedures are highly desirable. Also desirable, would be expertise in information security.

Learn More

Working at UAlbany

Benefits Summary

State Salary Schedules

Bargaining Agreements

Union Websites

Human Resources
UAB 300
1400 Washington Avenue
Albany, NY 12222
PHONE (518) 437-4700
FAX (518) 437-4731

A-Z Index for HR

Forms

Staff Directory

Campus Map

Human Resources is located in Suite 300 of the University Administration Building on 1215 Western Ave.

Participation in research, as well as curriculum, program, lab development, advisement, management, teaching, and grant activities are expected. A strong preference is for candidates with a demonstrated experience in applying for and obtaining external funding.

Applicants must address in their applications their abilities to work with culturally diverse populations.

Additional Information:

Professional Rank and Salary Range: Assistant Professor, salary is competitive & commensurate with experience

Start Date: Fall 2014

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, or Clery Act, mandates that all Title IV institutions, without exception, prepare, publish and distribute an Annual Security Report. This report consists of two basic parts: disclosure of the University's crime statistics for the past three years; and disclosures regarding the University's current campus security policies. The University at Albany's Annual Security Report is available in portable document format [PDF] by clicking this link http://police.albany.edu/ASR.shtml

THE UNIVERSITY AT ALBANY IS AN EO/AA/IRCA/ADA EMPLOYER

Please apply online via http://albany.interviewexchange.com/candapply.jsp?JOBID=44639

Application Instructions:

Applicants MUST submit the following documents:

- Letter of Application including statement on ability to work with a culturally diverse population
- Current Resume/CV
- Teaching Statement
- Research Statement
- List of publications, if not on resume/CV
- Last three published articles
- List of secured funding/grants and amounts
- Letter of commitment to service

Three letters of reference should be mailed to:

Sanjay Goel, Chair ITM
Search Committee
University at Albany, SUNY
1400 Washington Ave.
Albany, NY 12222

Note: After submitting your CV, the subsequent pages give you instructions for uploading additional documents (i.e. cover letter etc.).

See the FAQ for using our online system. Please **contact us** if you need assistance applying through this website.

Returning Applicants - Login to your U-Albany Careers Account to check your completed application.

The search will remain open until the position is filled.

Apply Now

Frequently Asked Questions (FAQ's)

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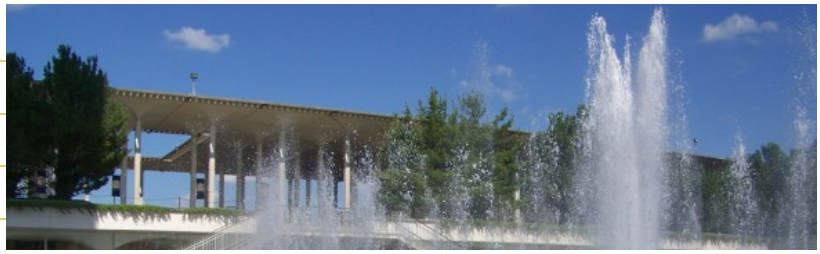

Digital Forensics - Assistant Professor

About University at Albany:

Established in 1844 and designated a University Center of the State University of New York in 1962, the University at Albany's broad mission of excellence in undergraduate and graduate education, research and public service engages a diverse student body of more than 17,300 students in nine schools and colleges across three campuses.

Located in Albany, New York, New York State's capital, the University is convenient to Boston, New York City and the Adirondacks.

Apply Now

Category:	Faculty
Department:	School of Business (ITM) & Criminal Justice
Locations:	Albany, NY
Posted:	Nov 26, '13
Type:	Full-time
Ref. No.:	P13-33023

E-mail to a friend

Job Description:

The **School of Business**, Information Technology Management Department and the **School of Criminal Justice** at the University at Albany, State University of New York invites applications for a tenure-track Assistant Professor in Digital Forensics beginning fall 2014. The candidate should have a strong background in the area of digital forensics and criminal justice.

This position is a part of a bold multi-year "2020 initiative" to implement an undergraduate Digital Forensics major featuring both face-to-face, blended, and online learning. We expect the new faculty member to participate in research, as well as, curriculum and lab exercise development and delivery in online, blended, face-to-face learning environments; academic program development; student advisement and mentoring; and grant-related activities (writing, reporting, and management). We strongly prefer candidates with demonstrated experience in applying for and obtaining external funding. The successful candidate will be expected to complement the existing strengths of those involved in the intended undergraduate Digital Forensics major.

This is a 10-month appointment that allows for supplementary summer salary from research funding. The normal teaching load is two courses per semester for faculty who work with graduate students and who are research active (before course buyouts). We expect new faculty to strengthen our majors, strengthen our undergraduate program, and strengthen the University mission through (i) teaching with distinction, (ii) maintaining a strong externally funded research program, (iii) effectively mentoring graduate students, and (iv) participating as necessary in service to the department, college, and the university.

The School of Criminal Justice has an internationally renowned doctoral program, offers a small MA program, and provides a select group of undergraduates the opportunity to earn the BA in criminal justice. The School of Business is a nationally ranked School with a record of

Human Resources
UAB 300
1400 Washington Avenue
Albany, NY 12222
PHONE (518) 437-4700
FAX (518) 437-4731

Human Resources is located in Suite 300 of the University Administration Building on 1215 Western Ave.

excellence in teaching and attracts the best students at the University at Albany. [It boasts a new $64 million dollar building that is state-of-the art and an award winning design.]

The University at Albany is one of the four University Centers of the State University of New York. Its approximately 17,000 students include some 5000 graduate students, and its full-time faculty numbers about 700. Albany, the capital of New York, is in a metropolitan area with a population of approximately 800,000. Located in beautiful upstate New York, it is in close proximity to the Berkshires, the Catskills, the Adirondacks, and the Hudson River Valley and is also convenient to Boston, Montreal, and New York City.

Requirements:

Applicants must have a Ph.D. in Information Technology Management, Computer Science, Informatics, Criminal Justice or a closely related discipline by September 2014. We will consider exceptional candidates who expect to defend and complete their dissertation work in fall 2014 . The candidate should have a strong background in the area of digital forensics, and criminal justice. Expertise in creating and evaluating forensics procedures, as well as information security are highly desirable. Applicants must show commitment to excellence in scholarship, teaching, and service and address in the application their abilities to work within a culturally diverse environment and to prepare students to work effectively in a world of increasing diversity. Participation in research, as well as curriculum, program, lab development, advisement, management, teaching, and grant activities are expected. A strong preference for candidates with a demonstrated experience in applying for and obtaining external funding from a college or university. This position is funded to support SUNY2020, UAlbany, School of Business and Rockefeller College.

Additional Information:

Professional Rank and Salary Range: Assistant Professor - salary is competitive & commensurate with experience

Start Date: Fall 2014

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, or Clery Act, mandates that all Title IV institutions, without exception, prepare, publish and distribute an Annual Security Report. This report consists of two basic parts: disclosure of the University's crime statistics for the past three years; and disclosures regarding the University's current campus security policies. The University at Albany's Annual Security Report is available in portable document format [PDF] by clicking this link http://police.albany.edu/ASR.shtml

THE UNIVERSITY AT ALBANY IS AN EO/AA/IRCA/ADA EMPLOYER

Please apply online via http://albany.interviewexchange.com/candapply.jsp?JOBID=44686

Application Instructions:

Applicants MUST submit the following documents:

- Letter of Application including statement on ability to work with a culturally diverse population
- Current Resume/CV
- Teaching Statement
- Research Statement
- List of publications, if not on resume/cv
- Last three published articles
- List of secured funding/grants and amounts
- Letter of commitment to service

Three letters of reference should be mailed to:

Sanjay Goel, Chair
Search Committee

School of Business
University at Albany, SUNY
1400 Washington Ave.
Albany, NY 12222

Note: After submitting your resume/CV, the subsequent pages give you instructions for uploading additional documents (i.e. cover letter etc.).

See the FAQ for using our online system. Please **contact us** if you need assistance applying through this website.

Returning Applicants - Login to your U-Albany Careers Account to check your completed application.

The search will remain open until the position is filled.

Apply Now

Frequently Asked Questions (FAQ's)

<<Prev 3 of 6 Next >>

Appendix 6

Articulation Agreements with:

Hudson Valley Community College

Tomkins Cortland Community College

UNIVERSITY AT ALBANY
State University of New York

TRANSFER ARTICULATION AGREEMENT

DIGITAL FORENSICS DEGREE PROGRAM

TOMPKINS CORTLAND COMMUNITY COLLEGE
AND
THE UNIVERSITY AT ALBANY

This transfer articulation agreement is the result of thoughtful cooperation between the faculty and staff of the University at Albany and Tompkins Cortland Community College.

Academic programs at Tompkins Cortland Community College provide strong preparation for and ready access to baccalaureate programs at the University at Albany. Therefore, we have developed an agreement with Tompkins Cortland Community College that will provide the maximum number of transfer credits applied to the Digital Forensics degree program at the University at Albany. We strongly believe that many students in a two-year program of study at Hudson Valley Community College will benefit from the information, guidance and transfer course equivalencies this agreement provides.

The University at Albany is delighted to continue our longstanding, close relationship with Tompkins Cortland Community College and we are proud to offer each student the opportunity to earn both an Associate's degree and baccalaureate degree within the State University of New York system.

Susan D. Phillips, Ph.D.
Provost and Vice President for Academic Affairs
Universtiy at Albany
State University of New York

UNIVERSITY AT ALBANY
State University of New York

The attached University at Albany and Tompkins Cortland Community College transfer equivalency table represents the required and suggested elective courses that are similar and parallel to those completed by degree-seeking students at the University at Albany. Tompkins Cortland Community College students who complete the program as outlined in these arrays will be awarded full transfer credit and afforded the opportunity to complete the Bachelor's degree in Digital Forensics in four additional semesters of study at UAlbany.

Students completing the Computer Information Systems major at Tompkins Cortland Community College will be fully admitted to the Digital Forensics major at UAlbany by satisfying the following requirements:

- Earn a 3.0 GPA in the following classes:
  - SOCL 101 *(ASOC 115)*
  - MATH 200 *(AMAT 108)*
  - CIS 108 *(BFOR 100)*
  - CISS 132 *(BFOR 203)*
  - CFOR 210 *(BFOR 201)*
  - CFOR 220 *(BFOR 202)*
- Secure an overall GPA of 3.25

Tompkins Cortland Community College students pursuing programs that do not conform to those specified herein will be considered for admission on an individual basis. The transfer course equivalency table in this agreement will be amended or expanded with mutual consent through an annual review by both institutions.

Approved for
Tompkins Cortland Community College
State University of New York

_____

_____

_____
Title

Date: _____

Approved for
University at Albany
State University of New York

_____
Jeanette Altarriba, Ph.D.

Vice Provost and Dean for Undergraduate Education
Title

Date: 2/19/14

SUNY TRANSFER COURSE EQUIVALENCY TABLE

Tompkins Cortland Community College (22889) AAS in Computer Forensics				
Course #	Course Title	Gen Ed	Major or SUNY Pathway	Credits Granted
CIS 108*	Introduction to Computer Information Systems			3
CRJU 105	Introduction to Criminal Justice	X		3
ENGL 100	Academic Writing 1			3
SOCL 101*	Introduction to Sociology	X		3
CFOR 110	Security System Design and Analysis			3
CIS 132*	Network Design			3
CIS 213	Programming in C++			3
CRJU 210	Introduction to Criminal Investigation			3
ENGL 101	Academic Writing 11	X		3
CAPS 152	Web page Design			1
CFOR 210*	Computer Forensics			3
CFOR 220*	Intrusion Detection			3
CIS 215	Operating Systems			3
SOCL 207	Introduction to Criminology			3
MATH 200*	Math elective – Statistics	X		3
CFOR 230	Search and Seizure – Legal and Privacy Issues			3
CFOR 240	Economic Crime Investigation			3
ENGL 201	Fundamentals of Speech			3
PSYC 103	Introduction to Psychology	X		3
	Humanities Elective	X		3
	Natural Science Elective	X		3
			Total Credits:	61

University at Albany BS in Digital Forensics				
Course #	Equivalent Course Title	Gen Ed	Major or SUNY Pathway	Credits Accepted
BFOR100*	Intro to Information Systems			3
RCRJ201	Intro to the Criminal Justice Process	X		3
AENG 010	English Elective			3
ASOC115*	Intro to Sociology	X		3
BFOR 204	Fundamentals of Info and Cyber Security			3
BFOR 203*	Networking 1 – Intro to Data Comm.			3
ICSI 010	Computer Science Elective			3
RCRJ 010	Criminal Justice Elective			3
UUNI 110	Writing and Critical Inquiry	X		3
ICSI 010	Computer Science Elective			1
BFOR201*	Intro to Digital Forensics			3
BFOR202*	Cyber Crime Investigations			3
ICSI 010	Computer Science Elective			3
RCRJ 203	Criminology			3
AMAT108*	Elementary Statistics	X		3
RCRJ 010	Criminal Justice Elective			3
RCRJ 010	Criminal Justice Elective			3
ACOM 203	Speech Presentation			3
APSY 101	Introduction to Psychology	X		3
	Gen Ed Elective	X		3
	Natural Science Elective	X		3
Additional Required and Elective Courses for the Major at UAlbany				
BACC 211	Financial Accounting			3
BACC 400	Accounting for Forensics			3
BACC 401	Financial Forensics			3
BFOR 300	Databases Digital Forensics Management			3
BFOR 301	Computer Forensics 1			3
BFOR 302	e-Discovery			3
BFOR 303	Computer Forensics 2			3
BFOR 304	Network Forensics			3
BFOR 401W	Advanced Digital Forensics			4
BFOR 402	Digital Forensics Moot Court			4
BITM 215	Information Technologies for Business			3
RCRJ 202	Intro to Law and Criminal Justice			4
	US History Gen Ed	X		3
	International Perspectives Gen Ed	X		3
	Foreign Language Gen Ed	X		3
	Challenges for the 21st Century Gen Ed	X		3
	Liberal Arts Elective			3
	Electives			5
			Total Credits Transferred:	61
			Course Credits Needed for Graduation after Transfer:	59

***A 3.0 GPA is required in these courses; as well as an overall GPA of 3.25, for admission to UAlbany Digital Forensics major.**

UNIVERSITY AT ALBANY
State University of New York

TRANSFER ARTICULATION AGREEMENT

DIGITAL FORENSICS DEGREE PROGRAM

HUDSON VALLEY COMMUNITY COLLEGE
AND
THE UNIVERSITY AT ALBANY

This transfer articulation agreement is the result of thoughtful cooperation between the faculty and staff of the University at Albany and Hudson Valley Community College.

Academic programs at Hudson Valley Community College provide strong preparation for and ready access to baccalaureate programs at the University at Albany. Therefore, we have developed an agreement with Hudson Valley Community College that will provide the maximum number of transfer credits applied to the Digital Forensics degree program at the University at Albany. We strongly believe that many students in a two-year program of study at Hudson Valley Community College will benefit from the information, guidance and transfer course equivalencies this agreement provides.

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The attached University at Albany and Hudson Valley Community College transfer equivalency table represents the required and suggested elective courses that are similar and parallel to those completed by degree-seeking students at the University at Albany. Hudson Valley Community College students who complete the program as outlined in these arrays will be awarded full transfer credit and afforded the opportunity to complete the Bachelor's degree in Digital Forensics in four additional semesters of study at UAlbany.

Students completing the Computer Information Systems major at Hudson Valley Community College will be fully admitted to the Digital Forensics major at UAlbany by satisfying the following requirements:

- Earn a 3.0 GPA in the following classes:
  - SOCL 100 *(ASOC-115)*
  - BADM 220 *(AMAT 108)*
  - ACTG 110 *(BACC 211)*
  - CISS 100 *(BFOR 100)*
  - CRJS 155 *(BFOR 201)*
  - CISS 120 *(BFOR 203)*
- Secure an overall GPA of 3.25

Hudson Valley Community College students pursuing programs that do not conform to those specified herein will be considered for admission on an individual basis. The transfer course equivalency table in this agreement will be amended or expanded with mutual consent through an annual review by both institutions.

Approved for
Hudson Valley Community College
State University of New York

_____

_____

_____
Title

Date: _____

Approved for
University at Albany
State University of New York

_____

Jeanette Altarriba, Ph.D.

Vice Provost and Dean for Undergraduate Education
Title

Date: 2/19/14

SUNY TRANSFER COURSE EQUIVALENCY TABLE

Hudson Valley Community College (30084) AS in Computer Information Systems				
Course #	**Course Title**	**Gen Ed**	**Major or SUNY Pathway**	**Credits Granted**
CISS 110	Programming and Logic 1			4
CISS 111	Programming and Logic 11 – Data Struct.			4
ENGL 101	English Composition 1			3
ENGL 102	English Composition 2	X		3
CISS 100*	Intro to Computing and Information Science			3
CISS 120*	Networking 1 – Intro to Data Communication			3
CISS 125	Computer and Information Security			3
ACTG 110*	Financial Accounting			3
CRJS 155*	Concepts in Forensic Science			3
CRJS 101	Intro to Criminal Justice			3
CRJS 250	Criminology			3
PSYC 100	Intro to Psychology	X		3
SOCL 100*	Intro to Sociology			3
BADM 220*	Statistics	X		4
CISS 250	Database Management Systems			3
CMPT 115	Introduction to Business Analytics w/Excel			3
	History Elective	X		3
	Restricted Elective	X		3
	Restricted Elective	X		3
	Science Elective	X		4
			Total Credits:	**64**

University at Albany BS in Digital Forensics				
Course #	**Equivalent Course Title**	**Gen Ed**	**Major or SUNY Pathway**	**Credits Accepted**
ICSI 010	Computer Science Elective			4
ICSI 010	Computer Science Elective			4
AENG 010	English Elective			3
AENG 010	English Elective	X		3
BFOR 100*	Introduction to Computing			3
BFOR 203*	Networking 1 – Intro to Data Communication			3
BFOR 204	Computer and Information Security			3
BACC 211*	Financial Accounting			3
BFOR 201*	Intro to Digital Forensics			3
RCRJ 201	Intro to the Criminal Justice Process			3
RCRJ 203	Criminology			3
APSY 101	Intro to Psychology	X		3
ASOC 115*	Intro to Sociology			3
AMAT 108*	Elementary Statistics	X		4
BFOR 300	Database Management			3
BITM 215	Information Technologies for Business			3
AHIS 010	History Elective	X		3
	Elective	X		3
	Elective			3
	Science Elective	X		4
	Additional Required and Elective Courses for the Major at UAlbany			
BFOR 202	Cyber Crime Investigation			3
RCRJ 202	Intro to Law and Criminal Justice			4
BFOR 301	Computer Forensics 1			3
BFOR 302	e-Discovery			3
BFOR 303	Computer Forensics 11			3
BFOR 304	Network Forensics			3
BFOR 401W	Advanced Digital Forensics			4
BFOR 402	Digital Forensics Moot Court			4
BACC 400	Accounting for Forensics			3
BACC 401	Financial Forensics			3
	Challenges for the 21st Century Gen Ed	X		3
	Liberal Arts Elective			3
	Liberal Arts Elective			3
	Liberal Arts Elective			3
	Liberal Arts Elective			3
	Liberal Arts Elective			3
	Elective			2
			Total Credits Transferred:	**64**
			Course Credits Needed for Graduation after Transfer:	**56**

***A 3.0 GPA is required in these courses; as well as an overall GPA of 3.25, for admission to UAlbany Digital Forensics major.**