Report on the Establishment of Academic Programming Offered Through Distance Education

University of Rhode Island
December 27, 2012

2) Descriptive Information

a. Person with institutional responsibility for the academic quality of distance education:
Donald DeHayes, Provost and Vice President for Academic Affairs
Person to be contacted with questions: Laura Beauvais, Vice Provost for Faculty Affairs
(401-874-4341, beauvais@uri.edu)

b. Currently information about URI's online offerings and services are in several places.
Online courses are listed at: http://www.uri.edu/online/
Training for faculty and students is listed at: https://sakai.uri.edu/portal/
Technical Help and Support is available from: http://www.uri.edu/helpdesk/

The Office of Online Education is in the process of creating a new URI online portal page which will provide information to both students and faculty about online learning. For students, the page will include an orientation to online learning, a listing of all online courses and programs, frequently asked questions, advice from students and faculty about online learning, and various policies such as the proctored exam policy. For faculty, the page will provide links to pedagogical advice, academic integrity, professional development, and URI policies and procedures related to online learning. The page (which is in progress) can be found at http://www.uri.edu/provost/online/index.html

c. Technology Infrastructure:

The University of Rhode Island has a robust cyber infrastructure to support its online learning initiatives. The foundation of this infrastructure is URI's communications network which was upgraded in the summer of 2012 to a University-owned fiber optic backbone that connects its campuses and provides 10GB connectivity to Internet2, and a 1GB connection to the consumer Internet. The University has multiple fiber connections to Rhode Island's regional Internet2 service provider, OSHEAN, to provide redundancy and load balancing capacity. [OSHEAN (Ocean State Higher Education & Administrative Network) is a nonprofit Internet Service Provider formed by URI and Brown University in 1999. Its founding goal was to provide cost effective access to the internet and Internet2, to Rhode Island's higher education and K-12 organizations.]

Another important part of URI's cyber infrastructure is the data center which has been recently updated with a backup generator, redundant air conditioning and a hot and cool row configuration with integrated uninterruptable power supplies. Access to the data center is secured with card access and limited to employees and contractors on an "as needed" basis. In addition, the Kingston Campus relies on a smaller data center that also has backup power and cooling, to house redundant network and communication system components. Information Technology Services (ITS) staff administer all of the systems housed in the data center and perform nightly backups. Although most of the University's information systems are housed in the Kingston data center, the University uses video streaming services from

OSHEAN and has recently begun using a cloud based service provider, Taskstream, for assessment related e-portfolio needs.

The Information Security Office, which is part of ITS, works to protect the University's information resources. This group is comprised of an Associate Director of Information Security, a Senior Technical Programmer and a Senior Information Technologist. Additionally, firewall monitoring and initial response to network based threats are outsourced to an information security firm that provides 24x7 monitoring. The Information Security Office enforces compliance of University information security policy and verifies compliance with information security laws like FERPA, HIPAA, PCI, etc. This department will also audit University systems and in the event of a security breach, will manage the incident response.

The University uses PeopleSoft's enterprise resource planning (ERP) system, including the student information system (SIS) module for student self-service. In this system students can access their profile, academic records, financial aid information, class schedule, term finances, etc. All connections to PeopleSoft are encrypted using SSL which provides end to end encryption so student data are not vulnerable. Upon admission to the University, students are entered in the PeopleSoft system and credentials are automatically created for access to campus data networks, University email (through gmail) as well as the University's learning management system (LMS), which is Sakai.

Sakai is an open sourced learning management system which is hosted on campus and administered by ITS staff. Eleven instances of Sakai, version 2.8, are currently in production. Each instance is a complete working copy of Sakai on a separate physical or virtual server. A front-end load balancer is used to direct users who are connecting to Sakai, to the most appropriate instance-based availability and resource load of each server. Instances can be seamlessly increased to accommodate increased demand, and decreased in order to take individual services/instances down for server maintenance or repair. The system has been designed to minimize disruption to its users. Sakai course shells are automatically created for each class, each semester. In the fall of 2012 over 1,400 courses were created in Sakai. There were over 14,180 unique IDs logging into Sakai, with an average of 2,500 concurrent users during weekday afternoons, and over 3,100 concurrent users during the busiest period which occurs Monday evenings around 9:00PM.

The Sakai implementation at URI focuses on continuous improvement. Modules that improve the system's usability and functionality, as well as potential system enhancements, are continually being evaluated and tested. Integration of several modules like Big Blue Button desktop and video collaboration, Turning Technologies clickers and Wikispaces, are a few examples of functional enhancements that have been made to URI's Sakai implementation. Integrated video services that allow faculty and students to post or submit content are currently being evaluated, as well as full feature web collaboration tools like WebEx.

The Helpdesk is the customer facing part of ITS that assists students and faculty with technical questions and problems. The hours of live operation are Monday-Thursday

8:00AM-9:00PM, Friday 8:00AM-5:00PM, Saturday 10:00 – 4:00PM and Sunday from 1:00PM- 6:00PM. The Helpdesk uses Remedy to log, track and resolve trouble tickets that cannot be solved on the first call. It can be contacted by calling 401-874-4357 (401-URI-HELP), by sending an email to helpdesk@uri.edu or by Instant Messaging URIComputing on AIM. The Helpdesk also maintains a self-service wiki where clients can find information 24x7. http://hdwiki.uri.edu/index.php/Main_Page

d) Verification: URI's LMS, Sakai, is password protected. The Office of Online Education runs an Online Faculty Fellows program which provides training for new and experienced faculty teaching in an online or blended modality. While this training is designed to promote practices that have been found to enhance student learning, they also work to ensure that faculty know their students. We provide faculty with links to best practices in promoting academic integrity including WCET's Best Practices to Promote Academic Integrity in Online Education Version 2.0). These practices include the use of discussion forums so that faculty know their students and recognize their writing styles, a variety of assessments designed to ensure that faculty know their students, assignments that are personalized, and disaggregated projects and research assignments. Where secure testing is important, faculty have the option to give proctored tests (policy in process).

e) Contractors: None

3. Narrative

As noted in our recent NEASC Fifth Year Interim Report, the University does not currently offer any degree programs which provide 50% or more of its credits online nor is there a degree completion program offered totally on line. However, the University has continued to develop blended and online courses in order to provide additional access to students who can't readily come to campus, for summer courses, and to provide an online modality for those students and faculty who prefer to learn and teach in that way. The number of blended and fully online courses has increased substantially since the last comprehensive review. In the 2011-2012 academic year, 139 online courses were offered, an increase of 44% since 2007. Academic areas with the largest number of online courses are Communication Studies, Library Science, Women's Studies, Writing, and Psychology.

Consistent with the Academic Plan, the University is beginning a carefully considered process to offer 100% on line certificates and degrees. After conducting research on the skill, knowledge, and competency areas that the global economy requires of workers and areas of future business growth in Rhode Island, we are beginning by designing online post-baccalaureate certificates that will be accessible to Rhode Island residents (and beyond) to increase individuals' employability and advancement in fields critical to the knowledge economy. We currently have an online post baccalaureate certificate in digital forensics that began in 2007 (see Distance Education Data Form). A post baccalaureate certificate in cyber-security was approved by the Rhode Island Board of Governors for Higher Education (RIBGHE) in June 2012 and others in development or under consideration include lab automation, social media, sustainable business practices, and health care management.

Two departments Nursing and Communications are in the process of examining the need for full graduate degrees including a Masters in Library Science and a Doctorate of Nursing practice. Additionally, the University is studying the possibility of full undergraduate degrees and/or majors online within the next several years.

In order to move ahead with these plans, URI created an Office of Learning, Assessment, and Online Education (LAOE) and hired a Director as of March 2012. LAOE oversees the Student Learning Outcomes Assessment and Accreditation (SLOAA) office and the Online Education office and was designed specifically to link online education with student learning outcomes assessment and faculty training. The office is developing a strategic plan and institutional policies to ensure the quality and integrity of blended and online courses, as well as preparation programs to assist faculty and students participating in online courses.

a) Institutional Mission: *Describe how the proposed programming is based in the institution's mission. (Note Standards 1.1, 1.3; Guideline #1)*

Proposed online programming is consistent with the University's mission of being "the State's public learner-centered research university," which offers undergraduate, graduate, and professional educational programs to serve the needs of the citizens of Rhode Island and beyond (http://www.uri.edu/home/about/mission.html). Online programming fulfills the mission by providing accessible educational opportunities to a diverse constituency of learners within the State of Rhode Island as well as within the region, nation, and world who may not be able and/or willing to engage in on-campus academic programs. In particular, we intend to develop online programming for high demand fields that will increase the skills and employability of the Rhode Island workforce.

b) Planning and evaluation: *Describe the institution's planning for the proposed programming, including how the need or market for the proposed program(s) was determined. Describe how the institution's governing board, administration, and faculty were involved in the planning. As appropriate, describe the involvement of external groups, such as advisory groups. Provide information about how the institution will evaluate the proposed program(s). (Note 2.1, 2.3, 2.6; Guideline #2)*

Planning is being conducted in several areas of the institution simultaneously, including the Provost's Office, the various academic departments, the Office of Media and Technology, and the Office of Learning, Assessment, and Online Education. The Joint Committee on Online and Distance Learning, consisting of faculty and administrators, is also advisory to these planning processes.

The Provost's office contracted with Hanover Research to provide market research into graduate certificate programs including those offered online, the internal structure of online learning programs, and the high growth graduate and professional education programs. This research has informed the decision to focus URI's online efforts on post-baccalaureate online certificates and graduate programs. This summer, the Provost devoted half of his annual Dean's retreat on the development of online initiatives at URI. In response, the Deans from several departments have initiated internal planning processes to begin developing their online offerings.

The development of the Cyber Security and Digital Forensics online certificates has been overseen by the Digital Forensics and Cyber Security Center. These certificates are a logical outgrowth of the Center, which is a recognized national leader in providing strong, cutting-edge, comprehensive programs in both fields. The National Security Agency and the Department of Homeland Security (NSA/DHS) have selected the University of Rhode Island as a National Center of Academic Excellence in Information Assurance Education. Creating totally online certificates allows the Center to provide this strategically important certificate to working adults who are not able to attend classes on campus and to students outside of Rhode Island.

The development of the two certificate programs was done in close consultation with experts in law enforcement and professionals in the security business. The specific courses in the programs closely follow the guidelines of the National Security Agency's Information Assurance Courseware Evaluation (IACE) program. The careful mapping of the courses in the certificate programs to this IACE program was an essential part of the certification of URI as a Center of Academic Excellence in Information Assurance Education.

Since first being offered in 2007, approximately 35 students have received the Graduate Certificate in Digital Forensics. These students have come from all over the country, and some from other countries. Most of these students are working professionals who want to advance their careers with the important skills provided through the certificate program. The Graduate Certificate in Cyber Security will begin accepting applications for Fall 2013. The expectation is that the student body will be comprised of similar students to those in the Digital Forensics program.

In the last six months the Office of Learning, Assessment, and Online Education has begun a strategic planning process aligned with the University's Academic Plan (http://www.uri.edu/provost/planning/index.html) to focus on ensuring the quality of online courses and improving the support for online students. The office worked with the Faculty Senate to develop a Joint Committee on Online and Distance Education whose charge is to "propose, examine and recommend institutional policies and practices for developing, planning, evaluating, and implementing online and distance learning offerings with a focus on quality, sustainability, and connection to the mission of the institution, with the approval of the Faculty Senate and the Provost." Additionally, the office is providing guidance and expertise to the various departments and programs as they begin their planning for 100% online offerings.

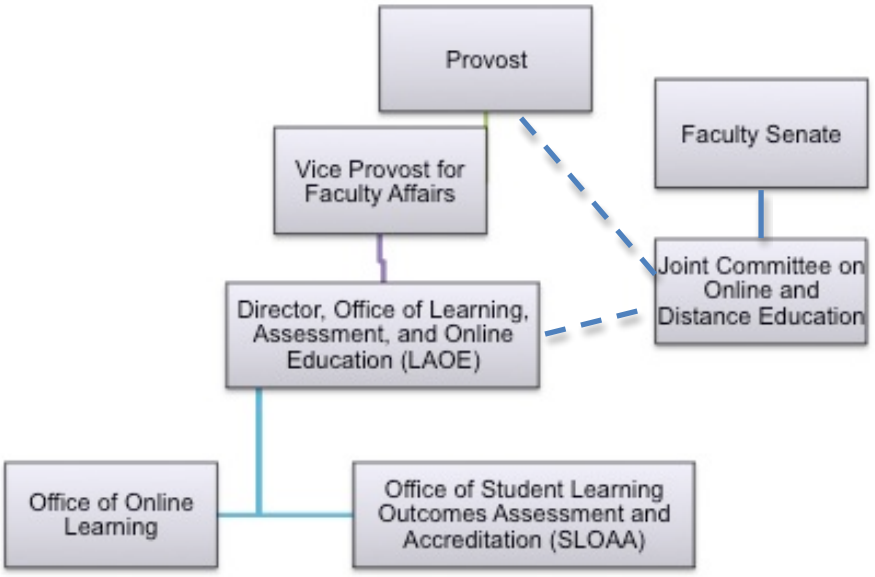
All new courses, programs, and majors regardless of the modality in which they are offered go through the same approval processes. The certificates have been approved jointly by the Department of Computer Science and Statistics and the Department of Electrical Engineering, again following their normal approval process. The digital forensics post baccalaureate certificate was approved in 2007 and the post baccalaureate certificate in cyber-security was approved in June 2012. The courses for both certificates have been approved by the department curriculum committee, college curriculum committee, the Graduate Curriculum Committee, and the URI Faculty Senate. Faculty Senate rules require that any new course offered online or any previously approved course which is moving to an online modality go through the appropriate Faculty Senate Curriculum committee approval process and be approved by the Faculty Senate

(http://www.uri.edu/facsen/curricular/Interactive_Curricular_Forms.html). With regard to governing board approval, certificate programs of 18 or fewer credits that do not require the expenditure of new funds will be discussed and approved by members of the Postsecondary Education Executive Council (PEEC) before passing before the board as a notice of change.

As part of the approval process for the Graduate Certificate in Cyber Security, a preliminary assessment plan was provided. This plan is attached in Appendix A. Assessment reporting of this program will take place under the same schedule as all graduate programs in the department. The assessment plan for the Graduate Certificate in Digital Forensics is attached in Appendix B.

c) Organization and academic oversight: *Describe where responsibility for distance education falls within the institutional structure and how the quality and integrity of the on-line programming will be assured. (Note 3.1, 3.10; Guideline #3 and #9)*

At the University of Rhode Island the responsibility for the academic integrity of all programs rests in the Office of the Provost. The Provost has established an Office of Learning, Assessment, and Online Education which reports directly to the Vice Provost for Faculty Affairs to oversee the planning, assessment, and growth of online education at URI. Using a shared governance model, the authority to formulate policies concerning teaching, academic standards, and both graduate and undergraduate curriculum matters rests in the Faculty Senate with the concurrence of the President. In order to enhance this joint responsibility in regards to online education, the Provost and Faculty Senate created a Joint Committee on Online and Distance Education which is chaired by the Director of the Office of Learning, Assessment, and Online Education and includes the Vice Provost for Faculty Affairs, the Director of Media Technology Services, a Dean from a degree granting college, and faculty representatives from the College of Continuing Education, University Libraries, University College, Curriculum Committee, General Education Committee, and the Graduate Council. The committee also includes one undergraduate and one graduate student.



The Office of Learning, Assessment, and Online Education's (LAOE) strategic plan contains a major focus on ensuring the quality of online courses and programs. This includes program assessment, faculty training, and policies to ensure academic integrity. The office has recently revised the Faculty Senate online course approval form to ensure that course learning objectives, student assignments, and course assessments are aligned and appropriate for the online environment. SLOAA works with the University's schools and departments to ensure that all programs including those offered online have clear measurable program outcomes which are reported to the Deans and the Provost on a regular schedule.

The Office of Online Learning provides an online faculty fellows training course for faculty who are planning on moving their courses online. The instructor of this online training course has taught online for many years, has been trained by Quality Matters, and receives support for continued professional development in online teaching through the Office of Online Learning budget. Faculty members receive a stipend for participating as an online faculty fellow—half when they complete the course and half when their online course is ready to be offered. URI has joined Quality Matters to provide faculty with access to their research-based best practices to use while designing their courses with the future goal of providing peer review of our online courses.

All online courses are designed to ensure academic integrity. All courses are offered through Sakai, a password protected Learning Management System. The student handbook contains clear language as to the University's definition of academic honesty (http://www.uri.edu/judicial/Student%20Handbook/ch1.html). Faculty training and the new URI online website emphasize best pedagogical and assessment practices to encourage academic integrity. The Joint Committee on Online and Distance Education has recommended a proctored testing policy that will be submitted to the Faculty Senate for approval.

d. *Educational programming:* *Describe the proposed on-line program(s): student learning goals, structure, curriculum, award of credit, and content. Discuss the involvement of on-campus faculty in the development of the proposed program(s). Provide evidence of the institution's capacity to offer the new programming and to maintain its current programs at an acceptable level of quality. Indicate how the institution will ensure that students studying at a distance are able to achieve learning outcomes comparable to those achieved in on-ground programs. Discuss the institution's plans to assess student learning for those enrolled in on-line programs. (Note 4.2, 4.11, 4.34, 4.39-4.42, 4.54; Guideline #4, #5, and #9)*

Overview

These two graduate certificate programs are designed to provide students with the fundamental technical, legal, and procedural concepts required in *Digital Forensics* and *Cyber Security*. Cyber Security is the discipline involved with preventing, detecting and responding to attacks on computer systems and networks. Digital Forensics is involved in investigating the attacks after they occur. Both fields require an in-depth understanding of computer science and computer systems as well as social/legal issues, and accepted procedures.

Two full-time faculty in the Computer Science Department at URI, in consultation with experts in the fields of Digital Forensics and Cyber Security, developed the programs and the courses within the programs. Because these are rapidly changing fields, it is vital that the program be kept current. Therefore, the faculty, along with industry advisors, regularly updates the materials in the courses as well as the courses that are offered for the program.

Cyber Security Certificate

Completion requirements:

To complete the Graduate Certificate in Cyber Security, a student will complete 4 courses for a total of 15 or 16 credits:

- CSC420 (Introduction to Information Assurance) - 4 credits
- CSC523 (Advanced Intrusion Detection and Defense) - 4 credits
- CSC524 (Advanced Incident Response) - 4 credits
- One more course from the following list:
  - CSC 585 (Topics in Computer Forensics) - 4 credits
  - CSC 586 (Topics in Network Forensics) - 4 credits
  - ELE 543 / CSC 519 (Computer Networks) – 3 credits

Student Learning Outcomes:

Upon completion of this program, students will be able to:

- Explain key terms and concepts of information assurance.
- Identify various threats, attacks, vulnerabilities and incidents in a computer system.
- Describe privacy, legal and ethical issues of information security.
- Identify, analyze and manage risk in a computer system and an organization.
- Plan and implement various security and recovery policies, procedures and technologies.
- Develop predictive measures to assess and prevent network intrusion
- Collect and analyze incident-related data to determine breach cause, severity and impact

- Present, discuss and analyze advanced network security concepts.

Digital Forensics Certificate
Completion Requirements:
To complete the Graduate Certificate in Digital Forensics, a student will complete 4 courses for a total of 15 or 16 credits:

- CSC414 (Computer System Fundamentals) – 4 credits
- CSC585 (Topics in Computer Forensics) – 4 credits
- CSC586 (Topics in Network Forensics)- 4 credits
- Research/practicum in Digital Forensics: - 3-4 credits

Student Learning Outcomes:
Upon completion of this program, students will be able to:

- Select and apply the most appropriate procedures to the retrieval, recovery and preservation of digital evidence;
- Collect, analyze and evaluate evidence data using industry-standard computer forensic software and hardware;
- Retrieve and recover files on numerous types of storage devices, and various operating systems;
- Prepare computer-forensics investigation reports that are admissible in court;
- Discuss and apply the rules of evidence and court procedures, as well as legal and ethical issues related to the acquisition and analysis of digital evidence;

Online Teaching
Both of the Graduate Certificates discussed here will be delivered with online courses. The Digital Forensics and Cyber Security Center (DFCSC) was recently awarded a grant from the Champlin Foundations to build a virtual lab for use in online classes. This lab will allow instructors to hold live virtual lab meetings students in online classes. The students will be able to interact with the instructor and other students in the class regarding hands-on exercises in the classes. This lab is expected to be functional and implemented in classes by Fall 2013.

e. Faculty: *Provide information about the faculty who will teach in the proposed program(s), including information about their qualifications and the institution's plans to provide needed training in on-line teaching methods. Discuss how students studying at a distance will receive academic advising. (Note 5.2, 5.16-5.19; Guideline #6)*

The courses in these certificate programs will be taught by faculty in the Department of Computer Science, or by adjunct faculty who are experts in the fields of cyber security and/or digital forensics. At least two of the full-time faculty involved in delivering these courses have participated in URI's Online Teaching Fellows program. The adjunct faculty will be supported by the full-time faculty members when developing and teaching courses in order to provide the most effective online experience for students. Academic advising for students studying at a distance will be provided by the faculty in the program via email, telephone or online communication such as Skype. The contact information for the advisors in these programs is clearly specified on the DFCSC web site.

f. Students: *Describe the student body the institution intends to serve with the proposed program(s) and how students will be recruited and considered for admission. Include information about the institution's goals for retention and graduation rates for students enrolled in on-line program(s).*

The Graduate Certificate Program in Digital Forensics serves the needs of mature students currently employed or aspiring to law enforcement or other forensics related positions with government agencies, military organizations and in corporate settings. It is anticipated that the Graduate Certificate Program in Cyber Security will serve a similar population looking for further knowledge of network security. These certificate programs are designed to provide individuals with the pragmatics of Cyber Security, Information Assurance, and Digital Forensics.

Mature students are often reluctant to make the commitment required by a full-fledged Master's degree program such as the one currently offered by the URI Computer Science Department. At the same time, the completion of non-degree coursework provides students with little recognition and, consequently, fewer incentives to pursue post-graduate education. These graduate certificate programs encourage students to pursue further professional development. Furthermore, some students apply to the Master's degree program subsequent to their completion of the graduate certificate program. Students in the undergraduate Computer Science degree programs (BS and BA) may choose to enter these certificate programs.

The admission requirements for both programs are as follows:

1. To apply to the one of these graduate certificate programs, students must apply to the URI Computer Science graduate program using the same application procedure as they would for a Master's degree application (transcripts, GREs, essay, letters of recommendation, etc.), but they check a box indicating the Graduate Certificate Program in Cyber Security or Digital Forensics.
2. In lieu of the stated background for the full Master's thesis that applicants must demonstrate, applicants for these programs must demonstrate either in previous course work, or professional experience, only the necessary pre-requisites to the courses they are taking for the certificate.

As the Cyber Security Graduate Certificate is new and has not accepted any students yet, there are no statistics on graduation and retention. The Digital Forensics Graduate Certificate program has graduated 35 students since its inception in 2007. The retention rate for the program is approximately 80% from the time of admission to graduation.

URI provides a robust menu of options for online students to obtain technical support. The help desk (http://www.uri.edu/helpdesk) is available by phone or email 7 days a week on a schedule posted on its web site. The helpdesk website also contains a help desk wiki available online anytime with answers to the most frequently asked questions. The Sakai portal also contains information specifically to help Sakai users https://sakai.uri.edu/portal/. The new Online website is designed to provide information to help prospective online students understand what an online course looks like, what types of students do best in an online environment, and best practices for learning online. It will also include an orientation to online learning and links to online academic support services.

g. Library and Technical Resources: *Describe how the institution will assure that students studying at a distance have access to, and use appropriately, the library and information resources they need to complete their program. Describe how the institution will support students in using information resources. Discuss the institution's plans to assure the sufficiency of its information technology to support its on-line programs, including any anticipated growth in such programs. (Note 7.3, 7.5-7.10, 8.1, 8.2, 8.5-8.7; Guideline #7)*

The University Libraries have supported the on-line programs at the University of Rhode Island for many years. In fact, the Library was among the first colleges at the University to offer an on-line three-credit course. Librarians continuously monitor new technology as it becomes available and consider how students might make use of new devices and technology in the pursuit of their course work, allowing us to adapt our delivery capabilities accordingly.

In support of online education, the University Libraries provide the following:

- The HELIN Online Catalog has been available since the mid-1980's. It has evolved from a text-based to a Web-based tool. Two versions of the database platform allow for both "google-like" inquiry and advanced research-oriented searching. There is also a version of the catalog available for use by mobile devices. All of these versions of the on-line catalog are freely available electronically.
- The Libraries offer on-line resources such as reference materials, books and journals. All holdings in these formats have increased dramatically in the past five years. We own the content of all e-books and have package acquisition agreements with all major publishers of e-books. This allows us to own the content of every book we purchase. Through a variety of vendors, we provide access to thousands of online journals. Our current acquisition policy for journals is to purchase on-line access if it is available. Students may access these collections electronically by authentication using their library barcode.
- Each Sakai course has a link to Library Resources on its main menu. This means that students taking a course at a distance have an instant link to library resources, making their search for information quick and easy.
- We offer online Reference Service. Instant Messaging allows students at a distance to contact a reference librarian to ask questions, seek direction, and get information regarding resources relating to their courses and their research.
- The Instruction Unit of the Library recently created a series of on-line tutorials to help teach students to be Information Literate and to take best advantage of the tools available to them in the on-line environment. These InfoRhode tutorials (http://www.uri.edu/library/inforhode) are invaluable to on-line students, who may be working on projects, research, or homework assignments at times when live Reference assistance is not available. They allow students to access critical "how-to" knowledge at any time, no matter what time zone they live in.

The University requires Library Impact statements for any new course and for any new program, before those courses or programs reach the approval stage. This allows the library to review its holdings to insure that we have the resources required to support the class/program. If a gap is discovered, the budget for the program or the class must be adjusted to provide the funding for new materials needed. (http://www.uri.edu/library/collection_management/index.html#Impact).

By making use of the tools the library offers, students studying at a distance have access to, and can learn to use appropriately, the library and information resources they need to complete their programs. (http://www.uri.edu/library)

h. Financial Resources: *Provide evidence of the institution's financial capacity to offer the proposed program(s). Include multi-year enrollment projections and revenue and expense budgets, including indirect costs, for the proposed programming. Discuss how the institution's governing board has considered the financial aspects of the proposed program(s). (Note 9.3, 9.8, 9.10, Guideline #8)*

Both of the Graduate Certificate Programs described here will be offered through CCE/Special Programs and thus will be supported financially through the revenue from the course tuition. The Digital Forensics program has successfully staffed its courses through this mechanism and has been found to be self-sustaining. The Cyber Security Graduate Certificate program will be run in the same way. The Rhode Island Board of Governors of Higher Education has not required approval of certificate programs that award 18 or fewer credits and do not require expenditure of new funds; a notice of change to the board is sufficient. (See Appendix C for the spreadsheet of budget figures for the digital forensics program since 2007).

i. Dealing with students, prospective students, and the public: *Provide information about how the proposed program(s) will be described in official institutional print and electronic publications. Discuss how the institution will ensure that students and prospective students understand the learning goals, resources, curriculum, and other aspects of the on-line program(s). (Note 10.1 and 11.2)*

The DFCSC web site (www.dfcsc.uri.edu) has a full description of these graduate certificate programs. Along with the course listings and the program requirements, the web site will have a full description of the student learning outcomes and the online resources that are available to students in the programs.

j. Contractual Arrangements: *If the institution enters into a contractual relationship with a non-regionally accredited entity to provide services or instruction for the proposed program(s), provide evidence that the arrangements comply with the Commission's standards (4.13, 4.32) and its Policy on Good Practices in Contractual Arrangements involving Courses and Programs). Include a copy of the contract as an appendix to the report. (Note: If the above-named policy applies, the institution may require more than 20 pages to complete this report.)*

There are no contractual relationships involved in offering these two certificate programs.

4. Data Sheets. See Appendix D.

CIHE DATA FORMS FOR REPORT ON DISTANCE EDUCATION PROGRAMS

INSTITUTION:

TABLE 1. Program and Certificate Description

Note: ***For Enrollment and other data, use data from current or most recently completed semester for which data are available.***

Programs and Certificates in which 50% or more of the credit may be completed entirely on-line

Program or Certificate Name	Level of Degree (A, B, M, D) or Certificate (C)	Initiation Date (First Enrollment) (Year Only)	Number of Required Credits	No. of Credits Which May be Completed On-Line
Digital Forensics	C	2007	15-16	15-16
Cyber Security	C	2013	15-16	15-16

Insert additional rows for more programs, if needed.

Scroll down to next table

CIHE DATA FORMS FOR REPORT ON DISTANCE EDUCATION PROGRAMS

INSTITUTION:

TABLE 2. Students

Note: ***For Enrollment and other data, use data from current or most recently completed semester for which data are available.***

Programs and Certificates in which 50% or more of the credit may be completed entirely on-line

Program or Certificate Name	Matriculated Students	Degree or Certificate Completers to Date	Total Number of Students Taking Courses on Ground*	In-State Students Taking Courses On-Line	Out-of-State Students Taking Courses On-Line	Students Based in Other Countries Taking Courses	Total Number of Students Taking Courses On-Line
Digital Forensics	124	35	0 - we interpretted this as number of students taking in-person classes. All of our classes are 100% online.	36	20	1	**57**
							0
							0
TOTAL	**124**	**35**	**0**	**36**	**20**	**1**	**57**

Insert additional rows for more programs, if needed.

***Students enrolled in programs described in this table.**

Scroll down to next table

CIHE DATA FORMS FOR REPORT ON DISTANCE EDUCATION PROGRAMS

INSTITUTION:

TABLE 3. Faculty

***Note:** For Enrollment and other data, use data from current or most recently completed semester for which data are available.*

Programs and Certificates in which 50% or more of the credit may be completed entirely on-line

Program or Certificate Name	Faculty Teaching in The Program (Headcount)				FTE Faculty in Program	Number with Highest Degree	
	Faculty Employed Full Time at The Institution		Faculty Employed PT at The Institution	Total Faculty in Program			
	FT in Program	PT in Program				Ph.D or Equivalent	Masters or Equivalent
Digital Forensics		1	0	**1**	2	1	2
Cyber Security		2	0	**2**	2	2	2
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				0			
				0			
				0			
				0			
TOTAL	**0**	**3**	**0**	**3**	**4**	**3**	**4**

Insert additional rows for more programs, if needed.

Scroll down to next table

CIHE DATA FORMS FOR REPORT ON DISTANCE EDUCATION PROGRAMS

INSTITUTION:

TABLE 4. Course enrollments and completions

***Note:** For Enrollment and other data, use data from current or most recently completed semester for which data are available.*

Programs and Certificates in which 50% or more of the credit may be completed entirely on-line

Courses Offered On-Line	Fall	Spring	Year Total*	Fall	Spring	Year Total*	Fall	Spring	Year Total*
Undergraduate									
Total Number of courses									
Total on-line enrollments									
On-line course completions									
Graduate									
Total Number of courses	1	1	2						
Total on-line enrollments	22	22	28						
On-line course completions	22	19	28						
TOTAL									
Total Number of courses	**1**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**
Total on-line enrollments	**22**	**22**	**28**	**0**	**0**	**0**	**0**	**0**	**0**
On-line course completions	**22**	**19**	**28**	**0**	**0**	**0**	**0**	**0**	**0**

* For year total, include all offerings, including Fall and Spring terms, short-terms, summer, and non-term-based offerings