



## New Program Report

**Date Submitted:**

03/27/2019

**Institution**

Columbia College

**Site Information**

**Implementation Date:**

8/19/2019 12:00:00 AM

**Added Site(s):**

**Selected Site(s):** Columbia College- Kansas City, 4240 Blue Ridge Blvd, Ste 400, Kansas City, MO 64133-1702

Columbia College-Jefferson City, 3314 Emerald Lane, Jefferson City, MO, 65109

Columbia College-Lake Ozark, 900 College Blvd, Osage Beach, MO, 65065

Columbia College-Rolla, 550 Blue's Lake Parkway, Rolla, MO, 65401

Columbia College-Springfield, 3271 East Battlefield Road, Suite 250, Springfield, MO, 65804

Columbia College-St. Louis, 4411 Woodson Rd., St. Louis, MO, 63134

Columbia College, 1001 Rogers, Columbia, MO, 65216

Online , 1001 Rogers Street, Columbia, MO, 65216

**CIP Information**

**CIP Code:**

430116

**CIP Description:**

A program focusing on the principles and techniques used to identify, search, seize and analyze digital media and to conduct cyber investigations against criminal and terrorist activity. Includes instruction in computer boot processes and drives, jumper setting, file access and reconstruction, hacking, network systems, cryptography, programming, investigative techniques, forensic imagery, web-based investigation methods, cyberterrorism, and applicable laws and administrative procedures.

**CIP Program Title:**

Cyber/Computer Forensics and Counterterrorism

**Institution Program Title:**

Bachelor of Science in Cybersecurity

**Degree Level/Type**

**Degree Level:**

Bachelor's Degree

**Degree Type:**

Bachelor of Science

**Options Added:**

**Collaborative Program:**

N



## New Program Report

**Mode of Delivery**

Current Mode of Delivery

Classroom

Online

**Student Preparation**

Special Admissions Procedure or Student Qualifications required:

Admissions procedures and student qualifications do not exceed regular College standards.

Specific Population Characteristics to be served:

Columbia College serves traditional students in the Day Program and specializes in adult education and military education. Columbia College serves nearly 29,000 students each year in more than 30 locations.

**Faculty Characteristics**

Special Requirements for Assignment of Teaching for this Degree/Certificate:

Columbia College adheres to the credential requirements set forth by HLC for all faculty members. Columbia College requires instructors to have at least a master's degree from a regionally accredited institution in the subject to be taught, with relevant coursework and/or professional experience directly related to the course. In exceptional circumstances, special certification or extraordinary work experience may compensate the absence of certain academic credentials.

Estimate Percentage of Credit Hours that will be assigned to full time faculty:

Full-time faculty teach 12 credit hours or less in a given session. Adjunct faculty can teach no more than 9 credit hours in a given session, and no more than 6 in-seat credit hours a session.

Expectations for professional activities, special student contact, teaching/learning innovation:

Full-time faculty members are required to have 3 hours a week of office hours designated for their students. Full-time faculty members are required to participate in professional development. Adjunct faculty members are required to provide contact information to students.

**Student Enrollment Projections Year One-Five**

Year 1	Full Time: 20	Part Time: 8	
Year 2	Full Time: 38	Part Time: 15	
Year 3	Full Time: 55	Part Time: 21	Number of Graduates: 0
Year 4	Full Time: 64	Part Time: 24	
Year 1	Full Time: 20	Part Time: 8	
Year 2	Full Time: 38	Part Time: 15	
Year 3	Full Time: 55	Part Time: 21	Number of Graduates: 0
Year 4	Full Time: 64	Part Time: 24	
Year 1	Full Time: 20	Part Time: 8	



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Year 2	Full Time: 38	Part Time: 15	
Year 3	Full Time: 55	Part Time: 21	Number of Graduates: 0
Year 4	Full Time: 64	Part Time: 24	
Year 1	Full Time: 20	Part Time: 8	
Year 2	Full Time: 38	Part Time: 15	
Year 3	Full Time: 55	Part Time: 21	Number of Graduates: 0
Year 4	Full Time: 64	Part Time: 24	
Year 1	Full Time: 20	Part Time: 8	
Year 2	Full Time: 38	Part Time: 15	
Year 3	Full Time: 55	Part Time: 21	Number of Graduates: 0
Year 4	Full Time: 64	Part Time: 24	
Year 1	Full Time: 20	Part Time: 8	
Year 2	Full Time: 38	Part Time: 15	
Year 3	Full Time: 55	Part Time: 21	Number of Graduates: 0
Year 4	Full Time: 64	Part Time: 24	
Year 1	Full Time: 20	Part Time: 8	
Year 2	Full Time: 38	Part Time: 15	
Year 3	Full Time: 55	Part Time: 21	Number of Graduates: 0
Year 4	Full Time: 64	Part Time: 24	
Year 5	Full Time: 72	Part Time: 28	Number of Graduates: 100

Percentage Statement:  
n/a

Program Accreditation



## New Program Report

Institutional Plans for Accreditation:

The degree program being proposed has been approved by the Higher Learning Commission.

### Program Structure

**Total Credits:**

120

**Residency Requirements:**

30

**General Education Total Credits:**

42

**Major Requirements Total Credits:**

54

### Course(s) Added

COURSE NUMBER	CREDITS	COURSE TITLE
CISS/FRSC 400	3	Digital Forensics
CISS 201	3	Agile Software Development
CISS 302	3	Business Data Communications and Networking
CISS 298	3	Web Programming
CISS 311	3	Advanced Agile Software Development
MGMT 254	3	Business Communication (will be Writing Intensive)
CISS 241	3	(Option 1) Programming I and
MGMT 230	3	Principles of Management
CISS 301	3	Operating Systems for Business Computing
CISS 242	3	Programming II and
CISS 365	3	Project Management
CISS 245	4	Advanced Programming
CISS 490	3	Cybersecurity Capstone
CISS 202	3	Introduction to Database
CISS 370	3	Operating Systems
CISS 350	3	Advanced Algorithms and Data Structure
CISS/CJAD 367	3	Cybercrime
CISS 243	3	Programming III
CISS 391	3	Information Systems Security
CISS 240	4	(Option 2- in seat option) Introduction to Programming and



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CISS 410	3	Computer Networks and Communication
CISS 238	3	Java Programming

**Free Elective Credits:**

22

**Internship or other Capstone Experience:**

Yes, there is a capstone experience required in CISS 490, this is intended to be a course taken late, if not last, in the major sequence. It is to include a culminating project.

**Assurances**

I certify that the program will not unnecessarily duplicate an existing program within the geographically applicable area.

I certify that the program will build upon existing programs and faculty expertise.

I certify that the institution has conducted research on the feasibility of the proposal and it is likely the program will be successful. Institutions' decision to implement a program shall be based upon demand and/or need for the program in terms of meeting present and future needs of the locale, state, and nation based upon societal needs, and/or student needs.

**Contact Information**

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- PUBLIC
- INDEPENDENT

**NEW PROGRAM PROPOSAL FOR ROUTINE REVIEW**

*When finished, please save and email to: [he.academicprogramactions@dhe.mo.gov](mailto:he.academicprogramactions@dhe.mo.gov)*

Sponsoring Institution:

Program Title: Bachelor of Science in Cybersecurity

Degree/Certificate:

If other, please list:

Options:

Delivery Site: Online, Columbia (day), Evening, Jefferson City, Springfield, St Louis, Ozarks, Rolla

CIP Classification: 11.1003

Implementation Date: 8/19/2019

Is this a new off-site location?  Yes  No

If yes, is the new location within your institution's current CBHE-approved service region?

*\*If no, public institutions should consult the comprehensive review process*

Is this a collaborative program?  Yes  No

*\*If yes, please complete the collaborative programs form on last page.*

Please list similar or comparable programs at Missouri public institutions of higher education.

*\*For public institutions only*

**CERTIFICATIONS:**

- The program is within the institution's CBHE approved mission. *(public only)*
- The program will be offered within the institution's CBHE approved service region. *(public only)*
- The program builds upon existing programs and faculty expertise
- The program does not unnecessarily duplicate an existing program in the geographically-applicable area.
- The program can be launched with minimal expense and falls within the institution's current operating budget. *(public only)*

**AUTHORIZATION**

Dr. Piyusha Singh, Provost and Vice President for Academic Affairs	 Signature	3/26/19 Date
Name/Title of Institutional Officer		

## PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

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Although all of the following guidelines may not be applicable to the proposed program, please carefully consider the elements in each area and respond as completely as possible in the format below.  
Quantification of performance goals should be included wherever possible.

### 1. Student Preparation

- Any special admissions procedures or student qualifications required for this program which exceed regular university admissions, standards, e.g., ACT score, completion of core curriculum, portfolio, personal interview, etc. Please note if no special preparation will be required.

*Admissions procedures and student qualifications do not exceed regular College standards.*

- Characteristics of a specific population to be served, if applicable.

*Columbia College serves traditional students in the Day Program and specializes in adult education and military education. Columbia College serves nearly 29,000 students each year in more than 30 locations.*

### 2. Faculty Characteristics

- Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate.

*Columbia College adheres to the credential requirements set forth by HLC for all faculty members. Columbia College requires instructors to have at least a master's degree from a regionally accredited institution in the subject to be taught, with relevant coursework and/or professional experience directly related to the course. In exceptional circumstances, special certification or extraordinary work experience may compensate the absence of certain academic credentials.*

- Estimated percentage of credit hours that will be assigned to full time faculty. Please use the term "full time faculty" (and not FTE) in your descriptions here.

*Full-time faculty teach 12 credit hours or less in a given session. Adjunct faculty can teach no more than 9 credit hours in a given session, and no more than 6 in-seat credit hours a session.*

- Expectations for professional activities, special student contact, teaching/learning innovation.

*Full-time faculty members are required to have 3 hours a week of office hours designated for their students. Full-time faculty members are required to participate in professional development. Adjunct faculty members are required to provide contact information to students.*

### 3. Enrollment Projections

- Student FTE majoring in program by the end of five years.  
*100 students*
- Percent of full time and part time enrollment by the end of five years.  
*28% part-time and 72 % full-time*

## STUDENT ENROLLMENT PROJECTIONS

YEAR	1	2	3	4	5
Full Time	20	38	55	64	72
Part Time	8	15	21	24	28
Total	28	53	76	88	100

### 4. Student and Program Outcomes

- Number of graduates per annum at three and five years after implementation.

*Percent Graduates at 3 years: 0%*

*Percent Graduates at 5 years: 65%*

*Part time students would not complete at 5 years if new students (these are not counted here). Percent graduates at 5 years is counting students (transfers, full time, online and in-seat). The College's majority of students are adult, continuing education students, which generally have a longer rate to graduation (150%-200%). If 100% of full time students completed in 5 years, this would still be a 72% percent completion rate.*

- Special skills specific to the program.  
N/A
- Proportion of students who will achieve licensing, certification, or registration.  
N/A
- Performance on national and/or local assessments, e.g., percent of students scoring above the 50th percentile on normed tests; percent of students achieving minimal cut-scores on criterion-referenced tests. Include expected results on assessments of general education and on exit assessments in a particular discipline as well as the name of any nationally recognized assessments used.

*Columbia College's goal is to have all students score at least in the 75th percentile on all normed tests.*

- Placement rates in related fields, in other fields, unemployed.  
N/A
- Transfer rates, continuous study.  
N/A

### 5. Program Accreditation

- Institutional plans for accreditation, if applicable, including accrediting agency and timeline. If there are no plans to seek specialized accreditation, please provide rationale.  
*The degree program being proposed has been approved by the Higher Learning Commission. The College is not seeking specialized accreditation at this time. The College intends to launch the program and assess the ability to pursue accreditation at a later date.*

### 6. Program Structure

A. Total credits required for graduation: 120

B. Residency requirements, if any:

30



C. General education: Total credits:  
42 general education

Courses (specific courses OR distribution area and credits)

Course Number	Credits	Course Title
		<b>General Education Requirements: 42 semester hours</b>
COLL 133	3	Foundations Seminar
COMM 110	3	Public Speaking
ENGL 133W	3	First Year Writing Seminar
	3	Ethical Reasoning Core Course
	3	Civic Engagement Core Course
	3	Creative Thinking & Experience Core Course
	3	Global Awareness Core Course
	3	Environmental Stewardship Core Course
	3	Human Experience Core Course
	3	Reasoning in Natural Science Core Course
	3	Mathematical Reasoning Core Course
	9	Three General Education Electives representing three areas, including two Writing Intensive courses, one of which must be in General Education, and a Multicultural Requirement
		<b>Total general education requirements: 42 semester hours</b>

D. Major requirements: Total credits: (53-54 credits) 21 major area requirements, 3 major electives, 21-22 electives

Course Number	Credits	Course Title
		<b>Major Area Requirements 53-54 semester hours</b>
CISS 201	3	Agile Software Development
CISS 202	3	Introduction to Database
MGMT 230	3	Principles of Management
MGMT 254	3	Business Communication ( <i>will be Writing Intensive</i> )
CISS 238	3	Java Programming
		<b>Option 1</b>
CISS 241	3	Programming I and
CISS 242	3	Programming II and
CISS 243	3	Programming III
		<b>Option 2 (in-seat option)</b>
CISS 240	4	Introduction to Programming
CISS 245	4	Advanced Programming
CISS 298	3	Web Programming
CISS 301	3	Operating Systems for Business Computing
		<b>OR</b>
CISS 370	3	Operating Systems
CISS 302	3	Business Data Communications and Networking
		<b>OR</b>
CISS 410	3	Computer Networks and Communication
CISS 311	3	Advanced Agile Software Development

CISS 350	3	Advanced Algorithms and Data Structure
CISS 365	3	Project Management
CISS/CJAD 367	3	Cybercrime
CISS/FRSC 400	3	Digital Forensics
CISS 391	3	Information Systems Security
CISS 490	3	Cybersecurity Capstone
		<b>Major Area Electives 3 semester hours (choose one of the following)</b>
CISS 390	3	Global Information Systems Management
CISS 402	3	Advanced Database Design
CISS 411	3	Software Architecture and Testing
		<b>Electives 21-22 semester hours</b>
		<b>Total semester hours: 120 semester hours</b>

E. Free elective credits: 21-22 semester hours

*(sum of C, D, and E should equal A)*

F. Requirements for thesis, internship or other capstone experience:

*Yes, there is a capstone experience required in CISS 490, this is intended to be a course taken late, if not last, in the major sequence. It is to include a culminating project.*

G. Any unique features such as interdepartmental cooperation:

*None*

#### 7. Need/Demand

Student demand

Market demand

Societal demand

I hereby certify that the institution has conducted research on the feasibility of the proposal and it is likely the program will be successful.

*On July 1, 2011, the Coordinating Board for Higher Education began provisionally approving all new programs with a subsequent review and consideration for full approval after five years.*

### COLLABORATIVE PROGRAMS

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- **Sponsoring Institution One:**
- **Sponsoring Institution Two:**
- **Other Collaborative Institutions:**
- **Length of Agreement:**
- **Which institution(s) will have degree-granting authority?**
- **Which institution(s) will have the authority for faculty hiring, course assignment, evaluation and reappointment decisions?**
- **What agreements exist to ensure that faculty from all participating institutions will be involved in decisions about the curriculum, admissions standards, exit requirements?**
- **Which institution(s) will be responsible for academic and student-support services, e.g., registration, advising, library, academic assistance, financial aid, etc.?**
- **What agreements exist to ensure that the academic calendars of the participating institutions have been aligned as needed?**

*Please save and email this form to: [hc.academicprogramactions@dhe.mo.gov](mailto:hc.academicprogramactions@dhe.mo.gov)*