August 11, 2020

Southwest Minnesota State University NOI

Start Term: 20211 (Fall 2020)
End Term: 99999 (No End)

Program Details NEW PROGRAM (NOTICE OF INTENT)

Southwest Minnesota State University Program Report 33-391-2020 Cybersecurity NOI
Program Details

This application has a 20 day review and comment period

Program Information

NAME/TITLE Cybersecurity NOI
# OF CREDITS 12.00

AWARD Graduate Certificate
DELIVERY MODE Online exclusively: must be completed entirely online; No face-to-face options available

CURRICULUM

Southwest Minnesota State University offers a graduate certificate in cybersecurity. The courses taken for this certificate prepare candidates for careers in the various areas focused on securing data within an information system. The certificate is designed for IS professionals wishing to move into cybersecurity. Coursework is offered in an asynchronous, online format. The certificate consists of the following 4 courses:

- CYBR 500: Introduction to Cyber Security 3 Credits
- CYBR 510: Cyber Security Law and Policies 3 Credits
- CYBR 520: Computer System Security 3 Credits
- CYBR 530: Internet Security 3 Credits

Minnesota State is an affirmative action, equal opportunity employer and educator.
Equity and Design Elements List all required courses. Identify MNTC courses and goal area. Describe how this program reflects diversity and inclusion. May attach a document to cover the following Equity by Design considerations.

Equity 2030 Student Populations:

- racial ethnicity
- socioeconomic
- first generation status

How does the curriculum of this program reflect diversity and inclusion?

Explain how the curriculum reflects culturally relevant elements addressing the needs of a growingly diverse student body.

This program consists of a series of four graduate courses leading to a graduate certificate in Cyber Security. The courses are: CYBR 500 Introduction to Information Security CYBR 510 Cybersecurity Law and Policy CYBR 520 Computer System Security CYBR 530 Internet Security.

Southwest Minnesota State University Equity Focused Cybersecurity Program. The Cybersecurity program is part of the computer science department’s suite of programs designed with equity gap success for students and ethical decision making for the communities in which the computer science professional are employed. The curriculum is developed with examples of the many different perspectives comprised in the historical and current work in the field. Students are first generation, socioeconomic, and from diverse backgrounds and the curriculum reflects the special needs of these diverse populations. The offering of this certificate online will allow for full access for a variety of students.

MN DEED

The Minnesota Department of Economic and Employment Data Workforce Diversity research indicates that the Southwest regional area of Minnesota indicates 4 in 10 employers are seeking to increase the diversity of their workforce.

Program Duplication

Area from which 80% of students are likely to attend (counties/regions).
Most of our students come from the 19 county area that surrounds Marshall. However, with this program being offered totally online, it opens up the service area to anyone in the United States. We expect the majority of the students for this program to be working professionals and to come from within the five state area.

Mankato offers a 9-credit Grad Certificate in Cyber Risk Analysis fully online, and they also have a 30-credit online Information Security and Risk Management Professional Science Masters (PSM). St Cloud State has an bachelor's in Cybersecurity but nothing at the graduate level or online.

There are expected to be 3.5 million unfilled cyber security jobs by 2021. The move to more remote work and learning will add to that demand. The existing programs within the region cannot handle the demand. In addition, the other programs within the MinnState system have a focus from the management side whereas our program’s primary focus is from the technology side. Professionals are needed from both sides. We anticipate eventually running each of the four courses once per academic year. If the courses reach full capacity, which we expect, that will be 50 students per year. If demand increases beyond that, we would need to consider offering each of the four courses every semester.

Initially our goal will be to enroll approximately 25 students per course with one course being offered each semester. As demand grows, we will offer additional sections as staffing allows. We anticipate eventually running each of the four courses once per academic year. If the courses reach full capacity, which we expect, that will be 50 students per year. If demand increases beyond that, we would need to consider offering each of the four courses every semester. We anticipate the students enrolling in this graduate certificate program will be working professionals seeking the certificate to help them advance in their career.

**Labor Market Information**

**OCCUPATIONAL/PROFESSIONAL?** Yes

**DESCRIBE NEED & BENEFITS**

Job titles in cybersecurity fields include:
- Cyber Security Engineer
- Cyber Security Analyst
This graduate certificate is a first step towards an online Master’s degree in cybersecurity. To differentiate our program from the others in the region and provide our unique niche in the market, we aim to focus the remaining courses for the online masters along the topic of developing secure software. This allows us to leverage our strength in producing students who go into the software development field with the desired education in cybersecurity.

**Job Outlook**

The job outlook for information security analysts demonstrates a 31.6% growth rate that is well above the statewide average growth rate. (MN DEED)

“Employment of information security analysts is projected to grow 32 percent from 2018 to 2028, much faster than the average for all occupations.

Demand for information security analysts is expected to be very high. Cyberattacks have grown in frequency, and analysts will be needed to come up with innovative solutions to prevent hackers from stealing critical information or creating problems for computer networks.

Banks and financial institutions, as well as other types of corporations, will need to increase their information security capabilities in the face of growing cybersecurity threats. In addition, as the healthcare industry expands its use of electronic medical records, ensuring patients’ privacy and protecting personal data are becoming more important.
More information security analysts are likely to be needed to create the safeguards that will satisfy patients’ concerns.

Employment of information security analysts is projected to grow 55 percent in computer systems design and related services from 2018 to 2028. The increasing adoption of cloud services by small and medium-sized businesses and a rise in cybersecurity threats will create demand for managed security services providers in this industry.” (Source: BLS, 2020.)

SOC CODES for jobs representing 80% of your anticipated graduates.

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To provide comments and feedback submit an email to: AcademicPrograms@minnstate.edu by August 31, 2020