Course Syllabus

Course Prefix, Number, and Title:

CSC 692 – Special Topics: Implementing Cybersecurity in the K12 Classroom

Credits:

3 Credits

University name:

Dakota State University

Academic term/year:

June 19 – August 4, 2017

Course meeting time and location:

Hybrid course. Participants will attend the 2017 Dakota State University GenCyber Teachers Camp June 19 – June 23. Lesson plans and other activities to be completed by August 5, 2016

Instructor information:

Name:

Rob Honomichl

Office:

East Hall 302D

Phone number(s):

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Course description:

The implementation of computer science and cyber security is an important topic in middle and high schools. Through this course, participants will be introduced to security first principles, python programming, cyber security, networking concepts, Raspberry Pi computers, Sphero, CodeBug and Arduino kits. Teachers will develop lesson plans to implement topics into their classroom as well as help to create a repository of lessons.

Prerequisites:

Course prerequisite(s):

- None

Technology skills:

Students will be required to use Microsoft Office Suite, Microsoft OneNote, Internet, and email. Other technology software and skills will be covered in the course.

Course materials:

Required textbook(s):

None

Required supplementary materials:

None

Optional materials:
Participants in the GenCyber Teacher Camp will be provided books and hardware to use in their classroom.

Course delivery and instructional methods:

The GenCyber Teachers Camp will consist of classroom instruction with work time to work on lesson plans and implementation. Each day participants will take part in core classes (networking, programming, and security), hardware core (Sphero, CodeBug, Raspberry Pi, and Arduino) as well as elective courses. The sessions will be hands on to help participants develop classroom implementation

Classroom policies:

Email policy:

All email communication should be sent to rob.honomichl@dsu.edu. When emailing please make sure you include **[GenCyber Teacher]** in the subject line so that I can easily distinguish which course you are enrolled in.

Attendance and make-up policy:

As part of the proposal to the National Security Agency, participants are required to take part in all classroom sessions. For the graduate participants will need to submit lesson plans prior to August 5, 2017

ADA Statement:

If you have a documented disability and/or anticipate needing accommodations (e.g., non-standard note taking, extended time on exams or a quiet space for taking exams) in this course, please contact the instructor. Also, please contact Dakota State University's ADA coordinator, Keith Bundy (located in the Student Development Office in the Trojan Center Underground or via email at Keith.Bundy@dsu.edu or via phone (605-256-5121) as soon as possible. The DSU website containing additional information, along with the form to request accommodations, is available at http://www.dsu.edu/student-life/disability-services/index.aspx. You will need to provide documentation of your disability. The ADA coordinator must confirm the need for accommodations before officially authorizing them.

Academic Honesty Statement:

Cheating and other forms of academic dishonesty run contrary to the purpose of higher education and will not be tolerated in this course. Please be advised that, when the instructor suspects plagiarism, the Internet and other standard means of plagiarism detection will be used to resolve the instructor's concerns. DSU's policy on academic integrity (DSU Policy 03-22-00) is available online.

All forms of academic dishonesty will result in no credit on the assignment. If you copy from another or allow another to copy from you, you have cheated. A formal acknowledgement that you violated academic integrity policies will be placed in your permanent academic records. If there is a second offense by the same student(s), they will fail the course.

Freedom in Learning Statement:

Students are responsible for learning the content of any course of study in which they are enrolled. Under Board of Regents and University policy, student academic performance shall be evaluated solely on an academic basis and students should be free to take reasoned exception to the data or views offered in any course of study. It has always been the policy of Dakota State University to allow students to appeal the decisions of faculty, administrative, and staff members and the decisions of institutional committees. Students who believe that an academic evaluation is unrelated to academic standards but is related instead to judgment of their personal opinion or conduct should contact the dean of the college which offers the class to initiate a review of the evaluation.

University Policy Regarding the Use of Tablets in the Classroom:

The Tablet PC platform has been adopted across the DSU campus for all students and faculty, and tablet usage has been integrated into all DSU classes to enhance the learning environment. Tablet usage for course-related activities, note taking, and research is allowed and encouraged by DSU instructors. However, inappropriate and distracting use will not be tolerated in the classroom. Instructors set policy for individual classes and are responsible for informing students of class-specific expectations relative to Tablet PC usage. Failure to follow the instructor's guidelines will hinder academic performance and may lead to disciplinary actions. Continued abuse may lead to increased tablet restrictions for the entire class.

Because tablet technology is an integral part of this course, it is the student's responsibility to ensure that his/her Tablet PC is operational prior to the beginning of each class period.

Course Goals:

- Complete the NSA Day of Cyber online Module
- Complete the NSA Cyber Teacher Certification
- Understand the Security First Principles
- Understand Python Programming for the classroom
- Implement cybersecurity into the classroom
- Understand networking topics
- Understand how to implement hardware topics into the classroom
- Understand the importance of computer science and cybersecurity in the k12 classroom.
- Develop curriculum and materials for other teachers.

Evaluation Procedures:

Assessments:

Participants will complete all activities required during the on campus including classroom activities and all needed surveys. After the camp to receive credit teachers will need to complete three lesson plans to implement into the classroom.