Program Logistics for:
Cyber Security Defense Certificate

Naval Postgraduate School
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Overview

This document is intended to describe the programs, courses and logistics pertaining the Cyber Security Fundamentals Graduate Certificate offered at the Naval Postgraduate School. The document contains the following sections:

1. Program Descriptions
2. Program Course Sequence and Schedule
3. Academic Calendar Years
4. Program Timelines

This is a “living” document and will be updated with changes and recommendations as deemed necessary.
1 Program Descriptions

Cyber Security Defense Certificate:

Using the foundation established through the Cyber Security Fundamentals certificate, students enrolled in Cyber Security Defense graduate certificate, will obtain a detailed understanding of and ability to function in real operational situations involving cyber security. They will gain the technical depth required to actively prepare for and respond to attacks. Students will learn to analyze network traffic to extract the observable characteristics of networks and network devices, thus providing a basis for defensive strategies. They will learn to build tools and how to configure systems and networks to permit systems to foster resiliency and continuity of operations, perhaps with reduced capacity, through attacks. Students will learn how to construct systems and tools to mitigate the impact of malicious software. Students will learn forensic techniques to retrieve and analyze stored information that may be corrupted or hidden. Considerable programming and hands-on work with systems and networks will be required. Entire courses, or units within them, may be taught at the classified level, thus facilitating classroom discussions on emerging challenges and capabilities.

Students entering this program are expected to have a strong foundation in cyber security and networking. In addition, entering students will be expected to understand and use the languages and techniques of operating system and network component development: the C programming language, assembly, shell scripting, use of linkers, loaders, and debuggers.

This program is for U.S. Government civilians and Military personnel only.
2 Program Course Sequence and Schedules

Cyber Security Defense
Certificate
Course Sequence
Curriculum: 258

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Courses Start</th>
<th>CS4558 Network Traffic Analysis</th>
<th>CS4677 Computer Forensics</th>
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<tr>
<td>1</td>
<td>April 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>July 2013</td>
<td>CS4684 Cyber Security Incident Response and Recovery</td>
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Specifics:
1. Courses will convene via Sakai, which is the NPS Distance Learning platform.
2. All courses are taught as asynchronous; meaning there are no scheduled “lecture” times during the week.
3. All courses will have weekly assignments, discussion questions, quizzes, weekly lectures (via PowerPoint, video lectures, etc.), midterms, class projects (individual and/or group effort), and final exams.
4. All course activities are dictated by the Professor conducting the class and will be listed in the course syllabus and/or course forum within Sakai.
5. This is GRADUATE EDUCATION, not training. Therefore, except to spend approximately 4-8 hours per class, per week to complete the coursework as instructed.
6. Since this is GRADUATE EDUCATION, you will be required to perform “hands-on” exercises and work with the “nuts and bolts” of computer programs.
7. Program consists of two (2) courses for the first quarter, and one (1) course for the second quarter. The entire certificate is completed in 2 quarters, or 6 months.
8. For more detailed information pertaining to Distance Learning courses at NPS, please refer to the NPS Distance Learning website at: http://www.nps.edu/dl/
3 Academic Calendar Years

ACADEMIC CALENDAR  AY 2013

Spring Quarter
Instruction Begins...............................Monday  1 Apr
Last day of classes..............................Friday  14 Jun
Final Examinations Begin......................Tuesday  18 Jun
Final Examinations End.........................Thursday  20 Jun
Graduation..................................Friday  21 Jun
Summer Break..................................24 Jun -  5 Jul

Summer Quarter
Instruction Begins...............................Monday  8 Jul
Last day of classes..............................Tuesday  17 Sep
Final Examinations Begin......................Thursday  19 Sep
Final Examinations End.........................Saturday  21 Sep
Academic Enrichment Week....................23 Sep -  26 Sep
Graduation..................................Friday  27 Sep


4  Program Timelines

April 2013 Start: 1st Quarter – AY13 Q3

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<td>04 JAN 13</td>
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<td>2</td>
<td>Tuition Funds Received NLT</td>
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<td>3</td>
<td>Course Pre-work sent to students</td>
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<td>4</td>
<td>Courses Start</td>
<td>01 APR 13</td>
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July 2013: 2nd Quarter – AY13 Q4

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<th>Steps</th>
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<td>1</td>
<td>Course Pre-work sent to students</td>
<td>21 JUNE 2013</td>
</tr>
<tr>
<td>2</td>
<td>Courses Start</td>
<td>08 JULY 2013</td>
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