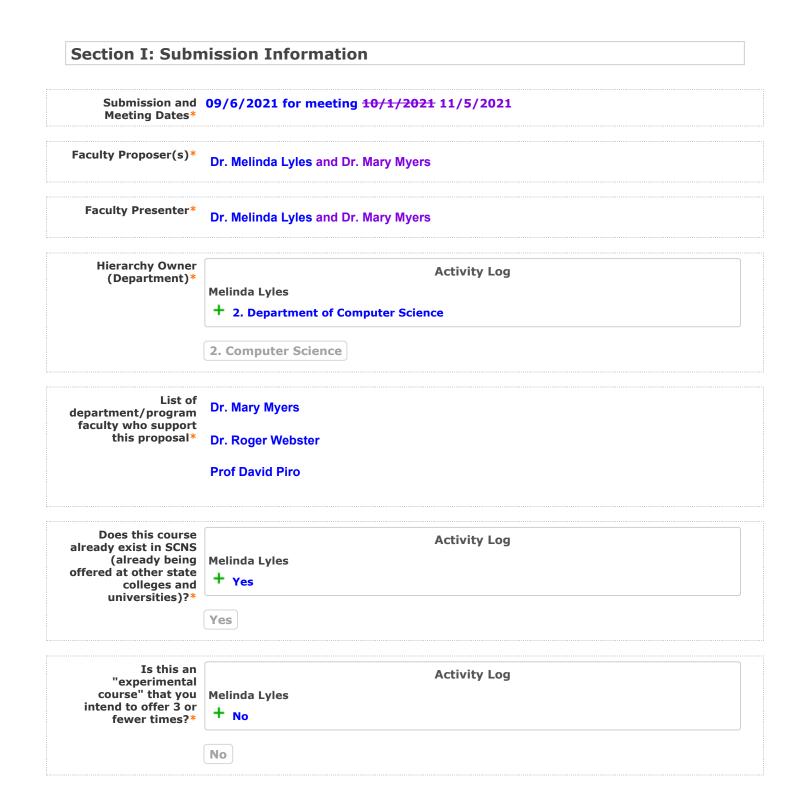
CTS - 1314 - Network Defense and Countermeasures I

XXX 3.0 New Course Proposal



Course Prefix*	Activity Log Melinda Lyles + CTS	Course Number* 1314
New Course Prefix		
Course Title*	Network Defense and Counte	ermeasures 1 I
Course Description*	with detection and response	to provide protection of digital business assets along to Cyber Threats cyber threats. Leverage Threat ce to predict threats before they happen. The focus is
	on network security designed comprehensive network defe	d to enable students to create and deploy a
Justification for new course*	comprehensive network defe This course is being added as	d to enable students to create and deploy a
	comprehensive network defe This course is being added as Degree. The state frameworks i protection of digital assets.	d to enable students to create and deploy a sinse system. a requirement for the new AS Cybersecurity Operations

Yes 🗹 No 🗌 N/A

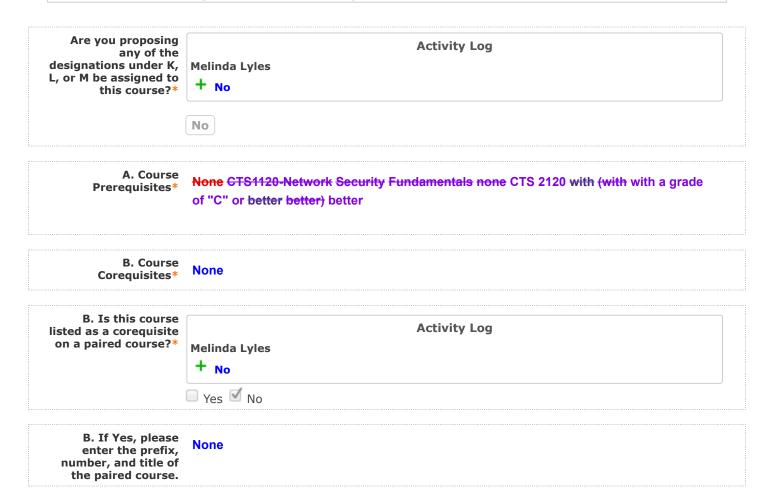
Indicate the course prefix and number of the course to be replaced.*	N/A	
Will the new course be equivalent to the course it is replacing? *	Activity Log Melinda Lyles + N/A	
	Yes No N/A	
Are you submitting a Course Discontinuation proposal for the course that is being replaced?*	Activity Log Melinda Lyles + N/A	

🔲 Yes 🔲 No, not at this time 🗹 N/A

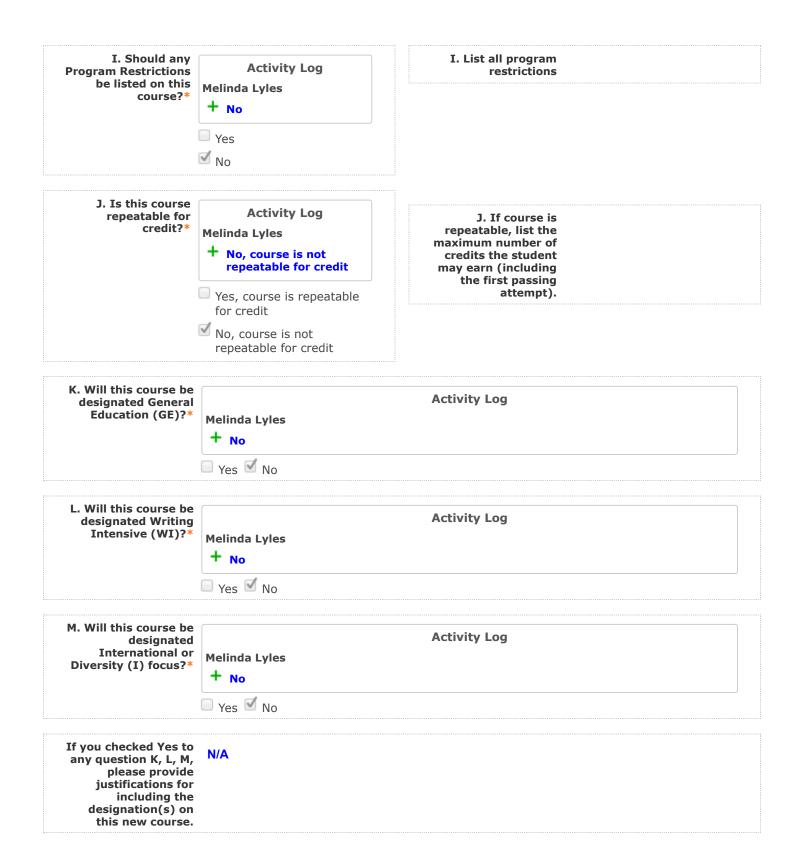
Section II: Effective Dates

Published Effective Date for approved action*	Melinda Lyles + Fall 2022	Activity Log	
Requested Effective Date for Exception*	Melinda Lyles + N/A	Activity Log	
.	N/A		
Reason for equesting exception to effective date*	N/A		

SECTION III: Proposed Course Requirements



C. Topic Outline*			
	Network Attacks atta	acks <mark>and Defense Strategie</mark>	s defense
	 strategies Administrative Network Security and technical network 		
	security		
	 Technical Network Security Administrative application security Network Perimeter Data security Endpoint Security security for Windows Systems Endpoint Security-Linux Endpoint Security-Mobile Devices Endpoint Security-IoT Devices Administrative Application Security Data 		
		bile and IoT (Internet Interne	et of Things)
	Things (IoT) devices	5	
D. Minimum grade required to pass the course*	C		
E. Course Credits or Clock Hours*	3 Credits		
F. Contact Hours (Faculty Load)*	3 Credits	F. Do the contact	
()		hours differ from the	Activity Log
		course/lecture/lab credits?*	Melinda Lyles
			+ No
			Ves
			✓ No
			™ NO
F. If Yes, please explain.	N/A		
G. Grade Mode*		Activity Log	
	Melinda Lyles		
	+ Standard Grading (A-F)		
	Standard Grading (A-F)		
H. Credit Type*		Activity Log	
H. Credit Type*	Melinda Lyles	Activity Log	
H. Credit Type*	Melinda Lyles + College Credit	Activity Log	
H. Credit Type*		Activity Log	



Section IV: Syllabus Course Competencies and Learning Outcomes

Integral GE Course Competencies and supporting Course Learning Outcomes*	General Education Competency: Research and Evaluate Think Course Outcomes outcomes or Objectives Supporting objectives supporting the General Education Competency Selected :	
	 Analyze Compare and contrast attacker Implement common defense tools; tactics; and harden computing systems prevalent in the current IT infrastructure procedures to identify indicators of compromise (IOCs) that can be utilized during active and future investigations prevent network attacks. Compare Assess modern attack methods, infiltration preference, and contrast endpoint security solutions for different types of platforms exploitations. Compare Analyze and contrast different methods to provide protection Identify identify network topologies used for data security modern information systems. 	
Supplemental GE Competencies and supporting Course Learning Outcomes*	N/A	
Is this course identified by the State in FAC Rule 6A 14.0303 as a General Education Core course?*	Activity Log Melinda Lyles + No No	
If YES, in which of the five General Education areas is this a Core course? (Drop down: Communication, Humanities, Social Sciences, Natural Sciences, Mathematics)	Ν/Α	

Additional Course _earning Outcomes*	 Prevent Utilize network attacks with security defense tools for both
	software and hardware countermeasures.
	 Explore recent and defense strategies historic events of major cyber- attacks.
	 Use the cyber kill chain to include administrative, technical, trace the stages of a cyber-attack.
	 Discover leading database design architectures and network perimeter security protocols.
	Discuss endpoint security solutions for different types of platforms.
	Articulate the basic understanding Compare and in-depth knowledge of
	contrast different methods to provide protection for data security.
	 Implement endpoint security threats for Windows, attacks Linux,
	vulnerabilities, attacker's behaviors, cyber kill chain, etc mobile and
	Internet of Things (IoT) IoT devices.
	Compare and contrast attacker tools, tactics, and procedures to identify
	indicators of compromise (IOCs) that can be utilized during active Analyze
	and future investigations. Compare and contrast endpoint security
	solutions for different types of platforms of assets harden emerging
	computing systems prevalent in the current IT information technology infrastructure.
	 Evaluate Perform security assessments for mobile devices, IoT, and
	program or web application security Compare and contrast different
	methods to providing protection for data security.
	Demonstrate the ability to monitor Monitor and analyze logs and alerts
	from a variety of different technologies across multiple platforms (IDS/IPS,
	end-point protection, servers, and workstations).

Section V: Impacts

Will this new course be included in any programs or certificates?*	Activity Log Melinda Lyles + Yes
· · · · · · · · · · · · · · · · · · ·	 Yes No AS Cybersecurity Operations Degree
that will include this new course.*	
Have you discussed the impact(s) with leaders of affected programs/departments *	Activity Log Melinda Lyles + Yes
	Yes No N/A

Section VI: State Information

Copy and Paste the
SCNS Course Profile
Description below
(http://scns.fidoe.org)IN THIS COURSE, STUDENTS TAKE AN IN DEPTH LOOK AT NETWORK DEFENSE
CONCEPTS AND TECHNIQUES. STUDENTS EXAMINE THEORETICAL CONCEPTS THAT
MAKE THE WORLD OF NETWORKING UNIQUE. THIS COURSE ALSO ADOPTS A
PRACTICAL HANDS-ON APPROACH WHEN EXAMINING NETWORK DEFENSE
TECHNIQUES. ALONG WITH EXAMINING DIFFERENT NETWORK DEFENSE
STRATEGIES, THIS COURSE WILL EXPLORE THE ADVANCEMENT OF NETWORK
IMPLEMENTATION, AS WELL AS, TIMELESS PROBLEM-SOLVING STRATEGIES. THE
COURSE ALSO COVERS SUCH ESSENTIAL PRACTICES AS DEVELOPING A SECURITY
POLICY AND THEN IMPLEMENTING THAT POLICY BY PERFORMING NETWORK
ADDRESS TRANSLATION, PACKET FILTERING, AND INSTALLING PROXY SERVERS,
FIREWALLS, AND VIRTUAL PRIVATE NETWORKS.

ICS code for this course*	Activity Log
	Melinda Lyles
	+ Advanced and Professional - 1.16.07 - Computer & Info Science

Institutional Reporting Code*	Activity Log	
	Melinda Lyles	
	+ 11607 Computer And Infor Science	
	11607 Computer And Infor Science	

Course Attributes*	Activity Log
	Sheila Seelau
	+ AA - AA Course
	- AS AS Course
	Melinda Lyles
	+ AS AS Course

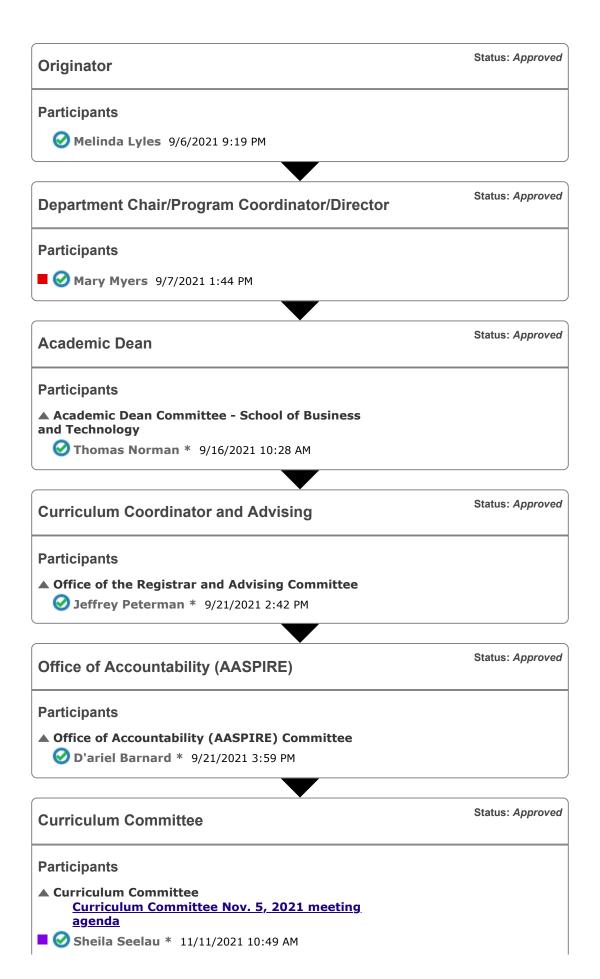
Section VII: Attachments

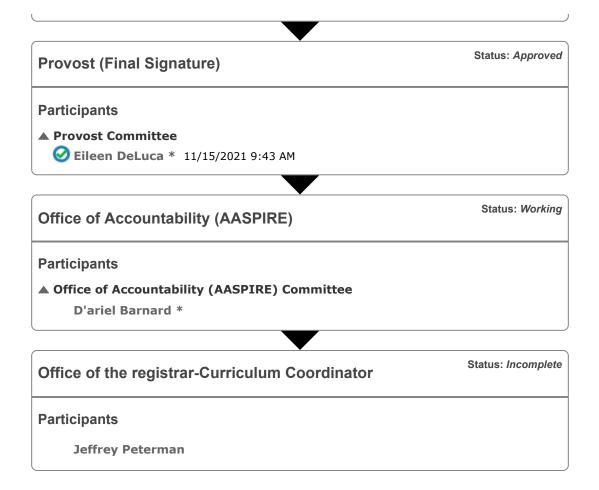
List any related proposals that are being submitted for the same meeting that include this new course, or are directly linked to this proposal*

N/A CTS1120-Network Security Fundamentals is a prerequisite New Program Proposal for this course. It is being presented to curriculum as a new course this meeting. AS Cybersecurity Operations degree

New Course Proposal for CTS 2317 Network Defense and Countermeasures II

Steps for CTS - 1314 - Network Defense and Countermeasures I





Attachments for CTS - 1314 - Network Defense and Countermeasures I

Integration Manager.pdf (uploaded by Melinda Lyles, 9/6/2021 9:18 pm) SCNS Email 9-16-2021 mutiple courses approved.pdf (uploaded by Sheila Seelau, 10/4/2021 7:19 pm) CTS 1314 Curriculum Committee Review Notes.docx (uploaded by Sheila Seelau, 10/6/2021 4:44 pm) CTS 1314 Network Defense and Countermeasures I -Syllabus 10-17-2021.docx (uploaded by Sheila Seelau, 10/17/2021 1:05 pm) CTS 1314 -Curriculum Committee Reviews_10-25-2021.docx (uploaded by Kelsea Cid, 10/25/2021 6:00 CTS 1314 Network Defense and Countermeasures I syllabus 10-27-2021.docx pm) (uploaded by Sheila Seelau, 11/1/2021 6:25 pm) CTS 1314 Reviews - final edits complete 11-1-2021.docx (uploaded by Sheila Seelau, 11/1/2021 6:25 pm) **CTS 1314** Network Defense and Countermeasures I - syllabus for Fall 2022.docx (uploaded by Sheila Seelau, 11/11/2021 10:45 am)

Comments for CTS - 1314 - Network Defense and Countermeasures I

Sheila Seelau

11/11/2021 10:49 am Reply

CTS 1314 Network Defense and Countermeasures I New Course proposal was accepted by unanimous vote of CC membership, 11/5/2021. This course will be added to the 2022-2023 catalog and may be offered beginning in Fall 2022.

Syllabus labeled "for Fall 2022" is finalized and ready to lock but should be held by the department chair or administrative assistant until the Document Manager files open for AY 2022-2023.

Kelsea Cid

10/25/2021 6:00 pm 2 Replies | Reply

The Curriculum Committee has completed their pre-meeting review of this course. Please see the Word document added on 10/25/2021 to review and/or answer reviewer comments/edits.

Sheila Seelau

11/1/2021 6:11 pm

I removed the parentheses from the prerequisite minimum grade to match current standard catalog language.

Sheila Seelau

11/1/2021 6:33 pm

All reviewer comments on syllabus addressed by Melinda Lyles 10/27/21. Corresponding changes to proposal made by S Seelau 11/1/2021.

"Review comments - finalized 11/1/2021" document uploaded.

Finalized syllabus (labeled 10/27/21) uploaded 11/1/2021. Please refer to this syllabus for the 11/5/2021 Curriculum Committee meeting. [Most older versions of the syllabus have now been removed from Curriculog.]

David Evans

10/21/2021 4:00 pm Reply

With the listed corrections, the proposal meets the requirements. No impact per the Impact Report.

Sheila Seelau

Mary Myers provided an updated syllabus containing revisions to all course learning objectives on 10/14/2021. This syllabus and all related changes were copied to the Curriculog proposal by SSeelau on 10/17/2021, replacing language in pertinent proposal fields.

SS also added New Course Proposal for CTS 2317 to the list of related proposals at the end of the form, as these two new courses are sequenced.

The syllabus file labeled "10-17-2021" replaces all previous versions and must be reviewed along with the revised proposal for the 11/5/2021 Curriculum Committee (CC) meeting. The proposal is being sent to CC&A and CC for review.

Sheila Seelau

11/11/2021 10:46 am

done

Sheila Seelau

10/8/2021 12:56 pm Reply

After consultation with Mary Myers, Prerequisite was changed from "None" to "CTS 2120 with a grade of "C" or better."

This change has been made both on proposal and syllabus. Please see syllabus labeled "10-8-21."

Sheila Seelau

10/6/2021 4:57 pm Reply

Curriculum Committee Review Comments document uploaded 10/6/2021. All issues have been resolved by Melinda Lyles with assistance from CC Chair Sheila Seelau and the support of CompSci Dept Chair Mary Myers. Reviewers should double-check to make sure their questions have been answered and comments addressed.

Sheila Seelau

10/6/2021 4:54 pm Reply

In response to reviewer questions about selected General Education competencies and supporting CLOs, originator Melinda Lyles changed the GE Integral Competency to Think. Critical thinking will be demonstrated by 3 supporting CLOs that begin with the phrase, "Compare and contrast."

Competencies were tightened, and formatting fixed. All changes copied to Syllabus 10/5/2021.

Sheila Seelau

Question to the Computer Science Department: Are you sure you want to make the minimum grade a C? By doing so, you will be excluding "non-computer science students" from meeting A.A. elective graduation requirements. Since this course is labeled AA, and will be part of a non-restricted program, you may want to consider allowing minimum grade of D (standard grading).

Sheila Seelau

10/6/2021 4:51 pm

SS: Discussed with originator Melinda Lyles and Computer Science Department Chair Mary Myers 10/5/2021.

Minimum grade of C will be a Program requirement in new Cybersecurity Operations AS degree, so should be listed on all new courses submitted (Fall 2021) for this degree.

In addition, all prerequisites should include "with a grade of "C" or better" language for progression purposes.

Existing courses COP 1000, CTS 1131, and CTS 1133 have standard grading (minimum grade of D), which will not be changed on the courses themselves. Instead, on sequenced courses for which any of these 3 act as a prerequisite, the requirement "with a grade of "C" or better" will be added to the prerequisite field.

Sheila Seelau

10/5/2021 12:21 pm 1 Reply | Reply

Review comments were discussed and edits made by MLyles and SSeelau 10/5/2021.

10/6/2021 11:07 am

- **10/5/21** edits made by/with ML based on review comments:
- meeting date changed to Nov 5
- prerequisite deleted

Sheila Seelau

- topic outline edited
- minimum grade = C verified
- Integral GE Competency changed to Think; supporting and additional CLOs
- modified
- formatting corrected (italics, punctuation)
- all relevant changes copied to syllabus

Jeffrey Peterman

9/21/2021 2:39 pm 1 Reply | Reply

Course Attributes need to be changed to AA AA Course as these can be taken by any one.

Sheila Seelau

Changed by SSeelau 9/23/2021.

Thomas Norman

I have reviewed and approve this proposal.

Mary Myers

9/16/2021 10:28 am Reply

9/23/2021 5:18 pm

9/7/2021 1:44 pm Reply

Signatures for CTS - 1314 - Network Defense and Countermeasures I

Provost (Final Signature)	Status: Approved
Seileen DeLuca	11/15/2021

Crosslistings for CTS - 1314 - Network Defense and Countermeasures I

CTS - 1314 - Network Defense and Countermeasures I (parent proposal) This proposal does not have any active crosslisted proposals.

Decision Summary for CTS - 1314 - Network Defense and Countermeasures I

Office of Accountability (AASPIRE)	Status: Working
Step Summary This step requires 100% approval from all participants	to move forward.
Participants	Totals
▲ Office of Accountability (AASPIRE) Committee D'ariel Barnard *	Users Approved: <i>0</i> Users Rejected: <i>0</i>