Centers of Academic Excellence in Cyber Security (CAE-C) Knowledge Units Review

Review Process

The Knowledge Unit (KU) Review Calendar divides the entire CAE-C KU list into 12 months for the purposes of community review. They are ordered based on their use in CAE Designation applications. The objective is to make all of the current KUs available for community comment in a one year period from April 2015 through April 2016.

The KUs are available for review and comment on the CAE Community website. For each month there will be a designated set of KUs up for discussion and vote. For the designated time period, discussions will be captured by the website.

- Once the comments period is closed, voting members of the CAE Community will cast their vote according to procedures published by the CAE Community Chair. Only the official POC for each designation at each institution will vote. Once there is a consensus, the CAE Community Chair will provide a CAE Community opinion on the KUs to the CAE Program Office at ASKCAEIAE@NSA.GOV.

- The CAE Program Office will take the consensus opinion under consideration, and will collaborate with designated partners in government, academia and industry and make a decision on any changes to each KU.

- The final decision on each KU will be released within a month of the input from the Community, and will be published on both the CAE Community and CAE-C Program websites. Changes to KUs will take effect on the following 1 July, with the first changes effective 1 July 2016. This will allow institutions applying for designation or going through the re-designation process time to accommodate changes to the KUs.

CAE-C KU Review Calendar

Knowledge Unit	Times Used for Designation	Community Comments Close	Opinion due to CAE Program	Final Decision
Digital Forensics	42	1 Jun 2015	1 Jul 2015	1 Aug 2015
Data Structures	41			
Cyber Defense	Core			
Basic Data Analysis	Core			
Basic Scripting or Introductory Programming	Core			
Advanced Network Technology and Protocols	29			
Database Management Systems	29			
Security Risk Analysis	29			
Fundamental Security Design Principles	Core			
IA Fundamentals	Core			
Cyber Threats	Core			
Algorithms	28	1 Jul 2015	1 Aug 2015	1 Sep 2015
IA Compliance	26			
Operating Systems Theory	26			
Introduction to Cryptography	Core			
IT Systems Components	Core			
Networking Concepts	Core			
Cybersecurity Planning and Management	25	1 Aug 2015	1 Sep 2015	1 Oct 2015
Vulnearbility Analysis	25			
Advanced Cryptography	23			
Probability and Statistics	Core			
Programming	Core			
Databases	Core			
IA Standards	22	1 Sep 2015	1 Oct 2015	1 Nov 2015
Network Forensics	21			
Network Security Administration	21			
Policy, Legal, Ethics and Compliance	Core			
System Administration	Core			
Network Defense	Core			
Pentration Testing	21			

Media Forensics	18	1 Oct 2015	1 Nov 2015	1 Dec 2015
Intrusion Detection / Prevention Systems	18			
Digital Communications	16			
Hardware/Firmware Security	2			
Networking Technology and Protocols	Core			
Operating Systems Concepts	Core			

Knowledge Unit	Times Used for Designation	Community Comments Close	Scheduled Review by Committee	Final Decision
Cloud Computing	15	1 Nov 2015	1 Dec 2015	1 Jan 2016
Device Forensics	15			
Host Forensics	15			
Intro to Theory of Compuation	14			
Operating Systems Hardening	14			
Life-Cycle Security	14			
Systems Certification and Acceditation	14			
Systems Security Engineering	6	1 Dec 2015	1 Jan 2016	1 Feb 2016
Embedded Systems	5			
Formal Methods	4			
Hardware Reverse Engineering	4			
QA/Funcational Testing	4			
Fraud Prevention and Management	3			
Independent/Directed Study/Research	3			
Security Program Management	13	1 Jan 2016	1 Feb 2016	1 Mar 2016
Software Reverse Engineering	13			
IA Architectures	11			
Supply Chain Security	11			
Virtualization Technologies	6			
RF Principles	6			
Forensics Accounting	5			
Overview of Cyber Operations	5			
Wireless Sensor Networks	5			
Analog Telecommunications	9	1 Feb 2016	1 Mar 2016	1 Apr 2016
Low-level Programming	9			
Secure Programming Practices	9			
Software Security Analysis	9			
Systems Programming	9			
Data Administration	7			
Software Assurance	7			
Industrial Control Systems	6			

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