

Accelerating Cybersecurity Workforce Development

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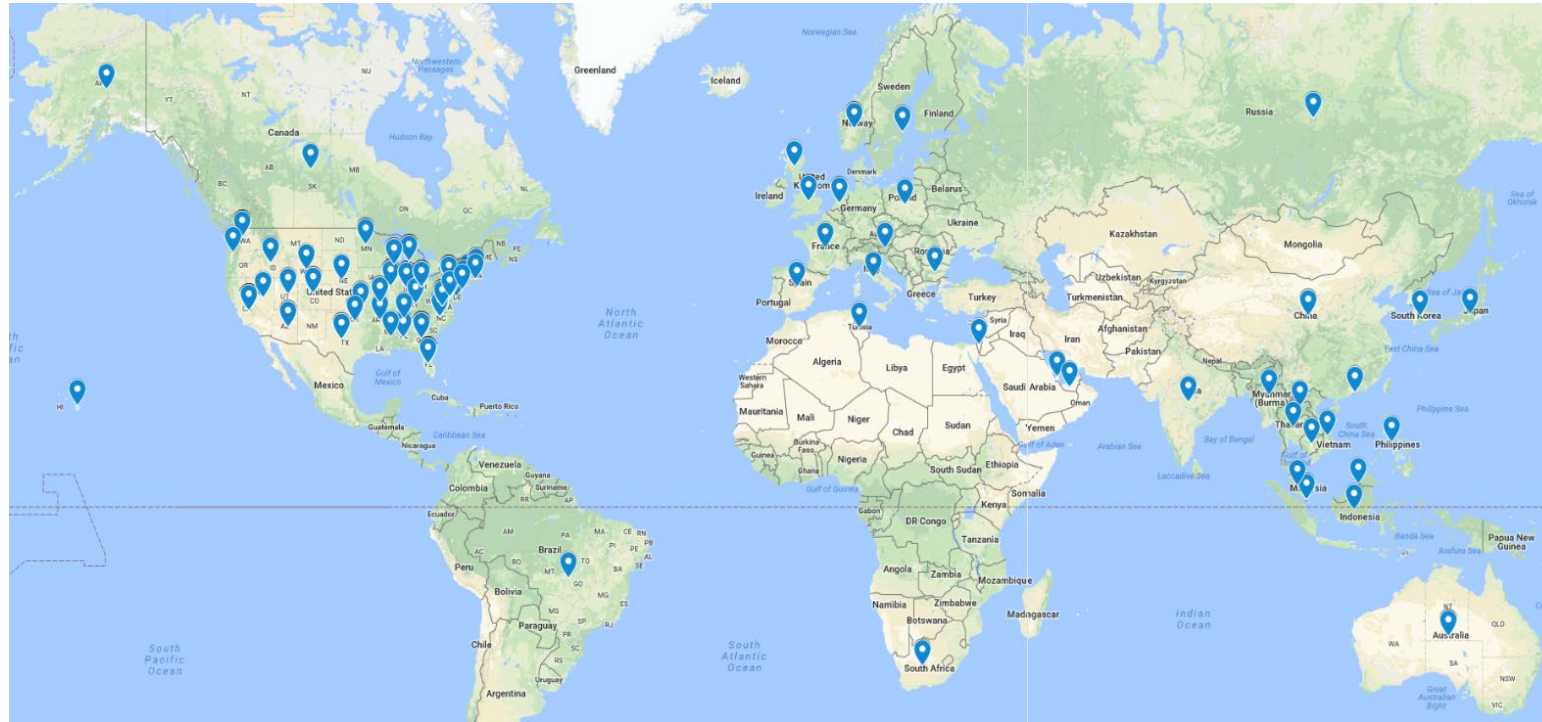
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CSEC2017 is the first set of global cybersecurity curricular guidelines. It provides comprehensive curricular content for global institutions seeking to develop a broad range of cybersecurity offerings.



Contact Diana Burley (dburley@gwu.edu) or see (cybered.acm.org) for additional information.

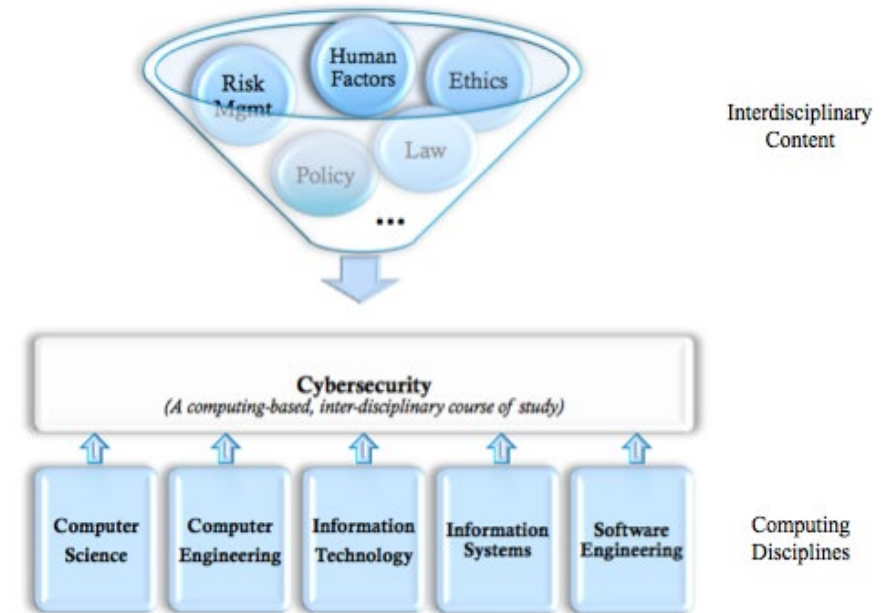


- Released in February 2018 after a 2.5 year development period
- Informed through 3 public drafts and 2 global surveys;
- Advised by > 325 subject matter experts from 35 countries;
- Endorsed by the 4 leading professional computing societies (ACM, IEEE, AIS, IFIP);
- Sponsored by the computing societies, US NSF (#1623104), Intel, US NSA (#H98230-17-1-0219)

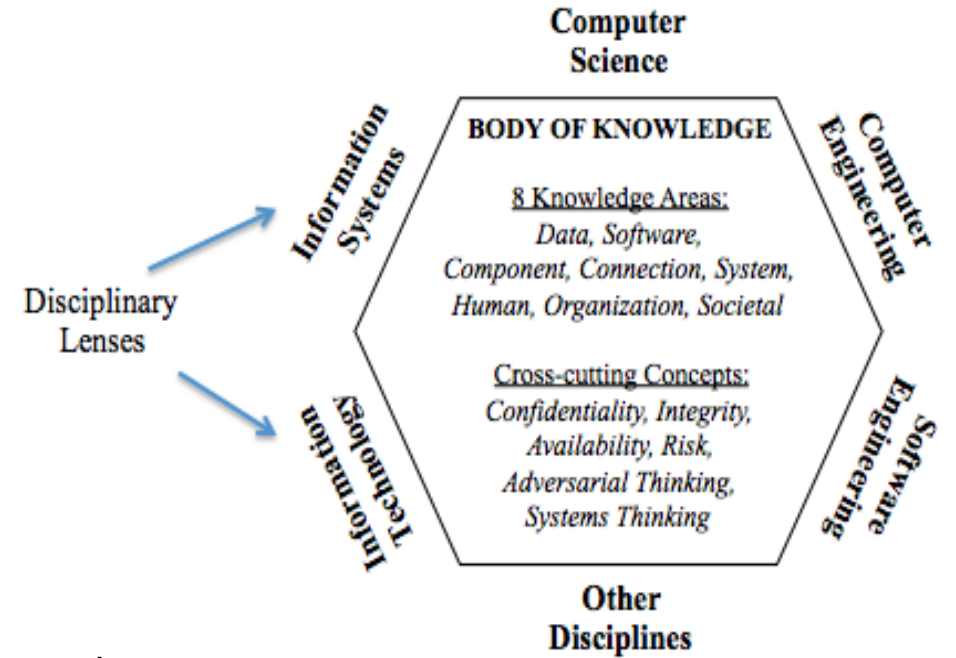
The Discipline of Cybersecurity

Cybersecurity is a computing-based discipline involving technology, people, information, and processes to enable assured operations in the **context of adversaries**.

It involves the creation, operation, analysis, and testing of secure computer systems. It is an **interdisciplinary** course of study, including aspects of law, policy, human factors, ethics, and risk management.



Structure of the Curricular Guidelines



- **Knowledge Areas:** basic organizing structure of the content
- **Crosscutting Concepts:** help students explore connections among the knowledge areas, are fundamental to an individual's ability to understand the knowledge area; and reinforce the security mindset conveyed through each of the knowledge areas.
- **Disciplinary Lens:** represents the underlying computing discipline from which the cybersecurity program can be developed. The disciplinary lens drives the approach, depth of content, and learning outcomes resulting from the interplay among the topics, essential and crosscutting concepts.
- **Foundational knowledge:** underlying content (*not shown*)

Accelerating cybersecurity workforce development by...

- Structuring the cybersecurity discipline and advancing a common understanding of the field
- Providing comprehensive and flexible curricular guidance for variety of institutions, programs, and learning opportunities
- Forming the foundation for accreditation efforts – ABET now accredits degree programs in cybersecurity (*See abet.org for more information*)
- Supporting the alignment of educational offerings along the full K12 - PD continuum
- Linking educational offerings to global workforce frameworks and specific position descriptions (*See March issue of IEEE Computer*)

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