



Bachelor of Science in Applied Cybersecurity and Information Technology



IIT School of Applied Technology
ILLINOIS INSTITUTE OF TECHNOLOGY



Bachelor of Science in Applied Cybersecurity and Information Technology

- ◆ Proposal approved by UGSC
- ◆ Proposal is comprehensive and complete
 - Consistent with existing programs at other institutions
 - Meets a clear market demand: 36.% growth; 1.5 million unfilled jobs by 2020

Bachelor of Science in Applied Cybersecurity and Information Technology

- ◆ Designed to meet criteria for ABET accreditation in *both* Information Technology and Cybersecurity (in draft)
- ◆ 129 hours total; 33 hours of information technology, 27 hours of cybersecurity, 6 hours of electives, 20 hours of math, 10 hours of science

Need for Degree (NICE)



1.5 Million

MORE cybersecurity professionals will be needed to accommodate the predicted global shortfall by 2020

Source: (ISC)² 2015 Global Information Security Workforce Study

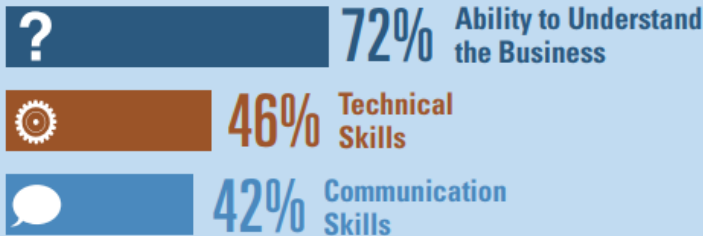


On average, 52%

of IT professionals surveyed stated fewer than **25%** of all applicants were qualified

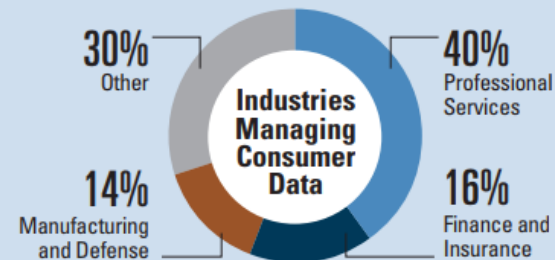
Source: State of Cybersecurity: Implications for 2015:
An ISACA and RSA Conference Survey

The biggest skill gaps of today's cybersecurity professionals



Source: State of Cybersecurity: Implications for 2015 An ISACA and RSA Conference Survey

Fastest cybersecurity demand sectors are in industries managing consumer data



Source:
Job Market Intelligence:
Cybersecurity Jobs, 2015–2016
Burning Glass Technologies

Cybersecurity

job postings took
8% longer to fill than
IT job postings overall

Expertise required for various cybersecurity roles in demand

- Information Security
- Network Setup
- Auditing
- Network Protocols



Approximately 10%

of the current cybersecurity workforce are comprised of women

Need for Degree

◆ Armed services

- ROTC Programs expect B.S. degrees
- Massive growth in U.S. Cyber Command
 - U.S. Army Cyber Command
 - U.S. Navy Fleet Cyber Command / U.S. 10th Fleet
 - 16,000 personnel
 - Navy Information Forces
 - Information Warfare Corps
 - Twenty-Fourth Air Force (24 AF)
 - 14,000 personnel
 - U.S. Marine Corps Forces Cyberspace Command (MARFORCYBER)



Role in Cybersecurity

- ◆ Existing core for cybersecurity at Illinois Tech
- ◆ National Center of Academic Excellence in Cyber Defense Education
- ◆ SAT Center for Cyber Security & Forensics Education (C²SAFE)
- ◆ ForenSecure Conference in 15th year
- ◆ Most published peer-reviewed research in applied steganography—from a *non-research* department



Role in Cybersecurity

Illinois Tech cybersecurity course offerings by course subject area:

Level →	Undergrad	Graduate	Total
CS	1	2	3
CSP	0	1	1
ECE	1	3	4
ITM	7	14	21
LAW	0	6	6
PA	0	2	2

Proposal

http://www.iit.edu/~ugsc/documents/BS_in_Applied_Cybersecurity_and_IT_Proposal_2017.pdf

The End



Questions?

