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: 36.2% 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

- **The biggest skill gaps of today’s cybersecurity professionals**
  - 72% Ability to Understand the Business
  - 46% Technical Skills
  - 42% Communication Skills

- **Fastest cybersecurity demand sectors are in industries managing consumer data**
  - 40% Professional Services
  - 16% Finance and Insurance
  - 14% Manufacturing and Defense
  - 30% Other
  - 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

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**ILLINOIS INSTITUTE OF TECHNOLOGY**

**School of Applied Technology**
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:

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<th>Level</th>
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Proposal

The End

Questions?