**Cybersecurity Southampton**
**University of Southampton**

## A: Technical + Human Factors streams

<table>
<tr><th colspan="5">Week 1</th></tr>
<tr><th>Monday</th><th>Tuesday</th><th>Wednesday</th><th>Thursday</th><th>Friday</th></tr>
<tr><td colspan="3" rowspan="2">Foundations of Cyber Security:<br><br>Cyber security: background, threat landscape, economic impact; Social engineering; Cyber-attacks: phases and tools; Cyber Essentials scheme; Principles of secure communications: hashing, crypto, digital signature; …</td><td colspan="2">TS: Network Security:<br>SSL; VPN; SSO; Kerberos; Identity assurance; Intrusion detection & prevention; Denial of service attacks, detection & mitigation; Cloud-based security; …</td></tr>
<tr><td colspan="2">HS: Cyber Risk and Decision Making:<br>Economic impact of cyber attacks; Corporate security & Intelligence; Enterprise risk management; Cybersecurity awareness; Security analysis and planning for strategic business; Cybersecurity policies for corporations; …</td></tr>
<tr><th colspan="5">Week 2</th></tr>
<tr><td colspan="3" rowspan="2">Secure Systems:<br><br>Privacy and anonymity protocols; Crowds, onion routing, ToR; Data management: anonymisation and de-anonymisation; Access control; Security assurance and evaluation; Offensive cyber-attacks: cyber war, hacktivism, APT; Critical infrastructures; Side channel attacks; Mifare, E-Passports and near-field communications systems; Card security, EMV payment systems, GSM and SIM cards; Trusted Computing and secure modules; …</td><td colspan="2">TS: Penetration Testing:<br>Web-based systems; OWASP; Vulnerabilities & exploitation; Security of database applications; Injection attacks; Cross-site scripting; …</td></tr>
<tr><td colspan="2">HS: Human Factors:<br>Cybercrime; Cyber law, regulating the online environment; Computer access offences; Data protection laws; Social engineering; Security of social networks; Authentication and authorisation techniques: passwords, biometrics, access control,…</td></tr>
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## B: Single stream

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<tr><td colspan="2">Secure Systems:<br>Privacy and anonymity protocols; Crowds, onion routing, ToR; Data management: anonymisation and de-anonymisation; Access control; Security assurance and evaluation; Offensive cyber-attacks: cyber war, hacktivism, APT; Critical infrastructures; Trusted Computing and secure modules; …</td><td>Web-based Penetration Testing<br>Web-based systems; Vulnerabilities & exploitation; Injection attacks; Cross-site scripting; …</td><td colspan="2">Human Factors:<br>Cybercrime; Cyber law, regulating the online environment; Computer access offences; Data protection laws; Social engineering; Security of social networks; Authentication and authorisation techniques: passwords, biometrics, access control,…</td></tr>
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