

# SYLLABUS

## MODULE 1

Certificate in Maritime Cyber Security

---

### Module 1: Cybersecurity, Threats, Actors and Motives

---

#### Course Content

- Terms and definitions of cybersecurity
- Analysis of existing threats that cybersecurity is seeking to address, and possibly, mitigate
- Effects that threat actors are trying to achieve
- Threat actors' motivation
- Case study

# SYLLABUS

## MODULE 2

Certificate in Maritime Cyber Security

---

### Module 2: Cybersecurity in the Maritime Industry

---

#### Course Content

- The importance of cybersecurity for ships
- The importance of cybersecurity for shore-based maritime industry activities
- Threat actor motivation specifically against the shipping industry
- Case study

# SYLLABUS

## MODULE 3

Certificate in Maritime Cyber Security

---

### Module 3: Information and Operational Technology Systems and 3rd Party Vulnerabilities

---

#### Course Content

- IT shipboard systems – vulnerabilities and potential consequences of cyberattacks
- OT shipboard systems - vulnerabilities and potential consequences of cyberattacks
- 3rd party (vendors, insurers, clients, ship brokers) vulnerabilities
- Case study

# SYLLABUS

## MODULE 4

Certificate in Maritime Cyber Security

---

### Module 4: Maritime Cyber Risk Assessment and Mitigation Measures

---

#### Course Content

- The importance of risk assessment on cyber attacks
- Risk assessment and management tools (KPIs)
- Types (APT, no-targetted) and stages of cyber-attacks against the shipping industry
- Case study

# SYLLABUS

## MODULE 5

Certificate in Maritime Cyber Security

---

### Module 5: Regulatory Framework, Best Practises and Basic Cyber-Hygiene

---

#### Course Content

- Existing regulatory framework
- The human factor in cybersecurity
- Shipboard operations safety briefing
- Tools and policy measures to achieve effective and sustainable cyber-hygiene on board and ashore
- Actions and reporting procedures in case of a cybersecurity breach

# SYLLABUS

## MODULE 6

Certificate in Maritime Cyber Security

---

### Module 6: Cybersecurity and Safety Management System (SMS)

---

#### Course Content

- Development of a comprehensive shipboard cybersecurity plan (CSP)
- Review of the CSP
- Monitoring and auditing the CSP
- Role of a cybersecurity officer (CySO)
- Functions of a Security Operations Centre (SOC)
- Cyber Incident Investigation and Emergency Response mechanisms