

**Title** *Secure Software Development*  
**Long Title** *Certificate in Secure Software Development*

<b>Awards</b>	Certificate	<b>Embedded Award</b>	No
<b>Programme Code</b>	CR_KSSDE_9	<b>Programme Credits</b>	20
<b>Mode of Delivery</b>	Part Time, Fully Online	<b>Programme Review Date</b>	May 2024
<b>No. of Semesters</b>	2	<b>Department</b>	Computer Science
<b>NFQ Level</b>	9		

### Programme Outcomes

*Upon successful completion of the programme the graduate will be able to demonstrate...:*

#### **PO1 - Knowledge - Breadth**

A systematic understanding of the theoretical and practical knowledge and skills relevant to the development of secure software at the forefront of the field.

#### **PO2 - Knowledge - Kind**

A critical awareness of emerging issues relating to the development of secure software which minimises the risk exploitation which is informed by the latest research in the field of cyber-security.

#### **PO3 - Skill - Range**

Select and apply standard and customised tools and techniques, including novel and emerging technologies to develop software that is designed from the foundation to be secure.

#### **PO4 -Skill - Selectivity**

Select from complex and advanced skills across the field of cybersecurity to critically analyse the security of existing software and to develop new software that is secure by design

#### **PO5 -Competence - Context**

Analyse and document measures to address risks and security weaknesses in software which is under development.

#### **PO6 - Competence -Role**

An ability to act as champion in the design, development, updating and assessment of secure software and to develop secure software to industry standards informed by the latest research in the field.

#### **PO7 - Competence -Leaning to Learn**

Critically analyse the currency of their own knowledge of secure software development and act to address weaknesses in their understanding relevant to specific software development projects by researching state of the art tools and techniques and emerging threats.

#### **PO7 - Competence -Insight**

Demonstrate a critical appreciation of the wider consequences to society of software that is vulnerable to attack and maintain high ethical standards in their treatment of such vulnerabilities.

## Semester Schedules

### Stage 1 / Semester 1

#### Mandatory

Module Code	Module Title
CYBR8001	<u>Cybersecurity Standards and Risks</u>
CYBR9001	<u>Secure Software Development</u>

## Semester Schedules

### Stage 2 / Semester 2

#### Mandatory

Module Code	Module Title
CYBR9002	<u>Security Assurance</u>
CYBR9003	<u>Practical Cryptography</u>