

# IFS - Honours Bachelor of Technology: Informatics and Security

Version 60

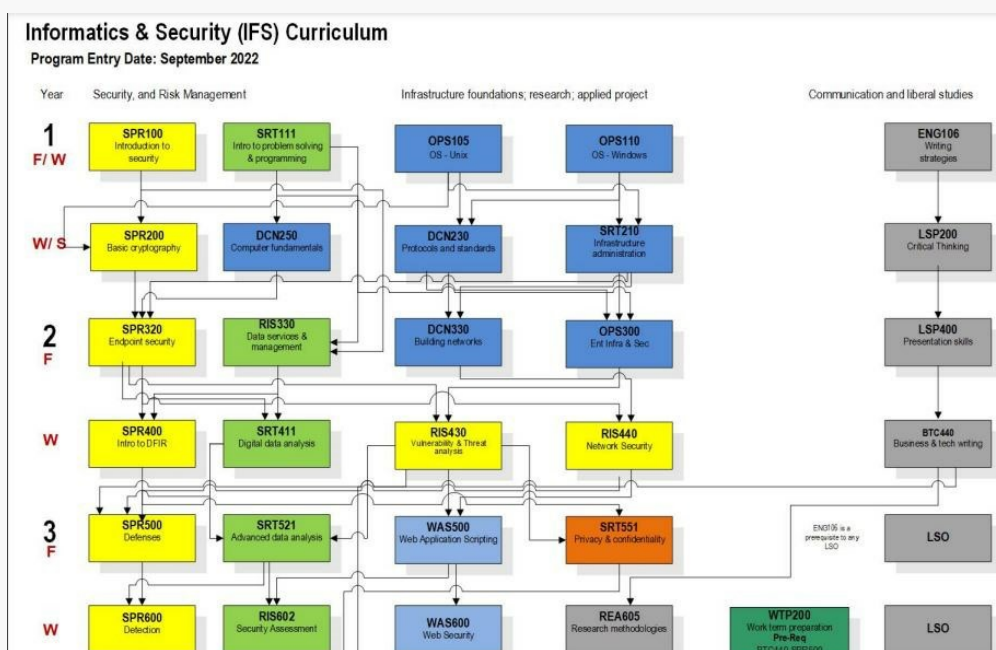
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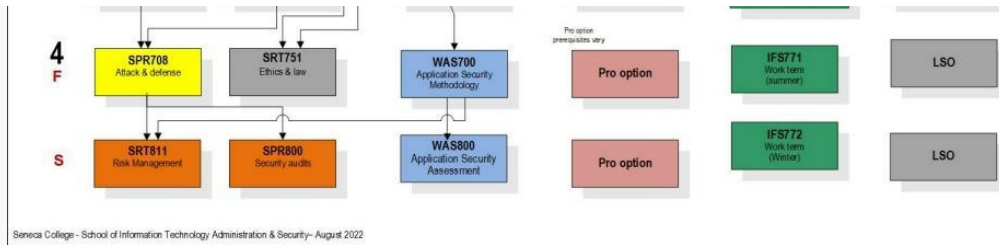
## Program Overview:

In this four-year Honours Bachelor Degree, you will learn the critical knowledge and practical skills required for a successful career in information security. You will develop a comprehensive knowledge of vulnerability and threat assessment, risk management, data analysis, and network and operating system infrastructure. This program focuses on practical applications that solve a variety of technological threats including hackers, malware, and data breaches.

<b>Program Code:</b>	IFS
<b>Credential Awarded:</b>	Honours Bachelor of Technology (Informatics and Security)
<b>Campus:</b>	Newnham
<b>Duration:</b>	4 years (8 academic semesters)
<b>Start Dates:</b>	Fall, Winter *Start Dates are subject to change

## Program Map:





## Program Curriculum and Pre-Requisite Planner

### PDF of Program Map

### Program Learning Outcomes:

As a graduate, you will be prepared to reliably demonstrate the ability to:

- Apply networked computing concepts to install, configure and maintain IT infrastructure as required in common business environments.
- Apply information security theory and concepts to meet organizational needs with respect to confidentiality, integrity, availability, and privacy in IT infrastructures.
- Build scalable tools to automate tasks performed in IT infrastructure.
- Implement data management practices throughout the data life cycle to secure information assets.
- Recommend security controls to comply with industry standards and mitigate risks.
- Implement identity and access management controls to protect systems from unauthenticated and unauthorized access.
- Create attack scenarios to test defensive capabilities of an organization.
- Analyze monitored systems to conduct security incident investigations.
- Create reports by aggregating, analyzing and visualizing data from diverse large-scale sources to support organizational decision-making.
- Model legal, ethical, professional and organizational codes of conduct as a security professional.
- Evaluate different approaches for solving problems using established ideas and methodologies to present oral and written recommendations.
- Apply interpersonal, team building, and leadership skills when participating in diverse organizational environments.

### **Mandatory Degree Co-op:**

A work experience that includes at least one term in a formal work environment. In most cases, the work term(s) is a paid position that is completed between two academic semesters and requires a minimum of 420 hours of work. Students must be in good standing and meet all identified requirements prior to participating in the work experience. The successful completion of two co-op work terms is required for graduation. Eligibility for participation does not guarantee that a work position will be secured. Additional fees are required for those participating in the mandatory co-op stream regardless of success in securing a work position.

*For more information regarding your Mandatory WIL term, please contact your respective **Student Adviser**.*

### **Admissions Requirements for Future Students/Students Graduating Secondary School:**

- Ontario Secondary School Diploma (OSSD) or equivalent with:
  - Six Grade 12 (U) or (M) courses with a minimum 65% average including:
    - Grade 12 English: ENG4(U)
    - Grade 12 Mathematics: any (U) level Mathematics
- OR Mature Student Status (age 21 or older) with the above prerequisite course(s) or their equivalent(s).

### **More Information About This Program**

\*Edited 12/2022\*

tags : degree, ifs