NUS-ISS Stackable Certificate Programmes in Digital Solutions Development

Leading to the NUS Graduate Diploma in Systems Analysis

Stack your way into an IT career

Why Stackable Programmes

Professionals, Managers and Executives (PMEs) can now gain knowledge and sharpen your skills without disrupting your careers. You will benefit from highly relevant courses that are kept current with the latest industry developments and the needs of the job market.

Stackable certificate programmes are an alternative pathway for continuing education. They consist of a series of certificates that will stack up towards a graduate diploma or a master’s degree. Each certificate is a recognition of the knowledge and skills you have acquired, making you ready for certain types of job roles.

You will have the flexibility of studying at your own pace by taking the required modular courses that make up the certificates to meet your needs. PMEs who do not wish to attain a certificate, graduate diploma or degree can continue to attend individual modular courses thus allowing you to gain the skills to meet your career needs.

Overview

The NUS-ISS Stackable Certificate Programmes in Digital Solutions Development is a series of stackable certificates that you can take while pursuing your career. These certificates will equip you with the necessary skills to design and develop IT solutions to solve business problems, enable process automation and support smart living.

These certificates start with the compulsory Foundations Certificate. Upon successful completion of this certificate, you can take the next three certificates - Design, Web Applications and Mobility Applications - in your preferred sequence and pace, thus having greater flexibility to plan your own learning journey.

These certificates will enable you to become a well-rounded IT professional. You can also complete your learning journey towards the NUS Graduate Diploma in Systems Analysis with a capstone project and a 5-month internship. This exposure will give you an edge in the industry, where globalised business interactions is the norm.

Learning Outcomes

At the end of the course, you will be able to:

Certificate in Digital Solutions Development – Foundations
- Write programmes using C# with Visual Studio
- Create WinForms using Microsoft Windows user interface controls
- Write SQL programmes to access databases
- Build enterprise solutions to link up client and server side components and databases

Possible job roles:
- Software Developer or Programmer on the .NET platform

Certificate in Digital Solutions Development – Design
- Use requirement gathering techniques to understand user requirements
- Define the scope of IT solutions and how they can resolve business problems
- Design back-end components to support IT solutions
- Plan and manage project schedules and resources required to deliver the solutions through the agile way

- Systems Analyst
- Business Analyst
Foundations 26 days
Develop digital solutions on the .NET platform

Design 30 days
Design IT solutions in the business environment and day-to-day activities.

Web Applications 15 days
Design web-based solutions using JAVA as the development platform.

Mobility Applications 18 days
Design mobile-based solutions using ASP.NET and Android.

Capstone Project & Internship 1 month 5 months
Apply the knowledge attained from the Digital Solutions Development Certificates in a capstone project and internship.

Certificate in Digital Solutions Development - Foundations
- Understand fundamentals of JAVA and Object-Oriented Programming in JAVA
- Apply design patterns and best practices to improve the applications
- Understand and employ responsive web design patterns for building user-friendly and device-sensitive user interfaces
- Software Developer or Programmer on the JAVA platform

Certificate in Digital Solutions Development - Web Applications
- Design both web and mobile applications with consideration of user experience and user interface
- Understand and apply various tools to design user interfaces, page and screen layouts
- Programme and develop Android apps and effectively use the Android Software Development Kit
- Software Developer or Programmer on the ASP.NET, Mobile Web and Android platforms

Certificate in Digital Solutions Development - Mobility Applications

Capstone Project & Internship
- Work on real IT projects
- Apply IT skill sets in an actual working environment
- Acquire problem-solving, project management, teamwork and leadership skills
- Attain relevant IT working experience
- Software Developer or Programmer on the .NET and Mobile Web platforms
- System Analyst
- Business Analyst

Learning Journey

NUS Graduate Diploma in Systems Analysis

Legend
^ NUS Matriculation:
Convert to an NUS matriculated student upon completion of all four certificates, subject to NUS admission requirements.
Who Should Apply

- Non-IT professionals looking to carve a new career in the IT industry.
- IT professionals who are keen to explore new roles within their current organisations.

Admission Criteria

- Have a basic understanding of how IT solutions can be used.
- All applicants are required to take an entrance test. Shortlisted applicants will also need to attend an interview thereafter.

- Have completed the NUS-ISS Certificate in Digital Solutions Development - Foundations

Institute of Systems Science

With over 30 years of experience in education, consulting and research, Institute of Systems Science (ISS) at the National University of Singapore (NUS) offers a suite of high quality IT graduate education and professional development courses. Its mission is to develop infocomm leaders and drive business and organisation innovation. It delivers five graduate programmes and professional development courses conducted by teaching staff who are industry professionals with successful track records and an average of more than 20 years of industry experience.

Since 1981, over 118,000 professionals, 6,800 corporate accounts and 5,500 graduate alumni members have benefitted from our programmes. The alumni community is made up of professionals from the local enterprises and MNCs from both public and private sectors.

Other Stackable Certificate Programmes offered by NUS-ISS

- NUS-ISS Stackable Certificate Programmes in Software Architecture
- NUS-ISS Stackable Certificate Programmes in Business Analytics
- NUS-ISS Stackable Certificate Programmes in NUS Graduate Diploma in Software Architecture
- NUS-ISS Stackable Certificate Programmes in NUS Master of Technology in Enterprise Business Analytics