NUS-ISS Stackable Certificate Programmes in

Software Architecture

Leading to the

NUS Graduate Diploma in Software Architecture

Fast track your career in Software Architecture
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 Software Architecture, leading to the NUS Graduate Diploma in Software Architecture (GDipSwA) is designed primarily for IT professionals in software development, who wish to upskill or cross-skill to become software architects. This programme will produce competent software architects who will contribute to the Smart Nation vision for Singapore. You will gain the necessary skills to architect and design software solutions with leading-edge methodologies, platforms and tools, which will transform business outcomes and give your employers the competitive edge by creating new products and services, reducing costs and increasing returns.

The GDipSwA comprises three parts:

1. **NUS-ISS Certificate in Software Architecture - Foundations**
   - Analyse business needs and requirements, design software applications using object-oriented techniques and patterns, design cloud-enabled mobile applications and Foundations project

2. **NUS-ISS Certificate in Software Architecture - Solutioning**
   - Architect enterprise-scale software solutions, architect software solutions that utilise cloud services and incorporate security in a software architecture project

3. **Software Architecture and Design Project (Capstone Project)**
   - Demonstrate the ability to apply software architecture and design skills in a real-life project

Who Should Apply

- IT professionals working in software development who wish to upskill or cross-skill to become software architects
- IT professionals wishing to keep pace with the latest practices in software architecture
Certificate in Software Architecture – Foundations
30 days

Business Analysis Fundamentals* 3 days
Designing Cloud-Enabled Mobile Apps* 3 days
Object Oriented Design Patterns* 4 days

Object Oriented Analysis and Design* 5 days
Software Architecture - Foundations: Project 15 days

Software Architecture and Design Project (Capstone Project)* 40 days

Learning Journey

Certificate in Software Architecture – Solutioning
28 days

Cloud Computing for Application Architects* 3 days
Certified Secure Software Lifecycle Professional* 5 days

Architecting Software Solutions* 5 days
Software Architecture - Solutioning: Project 15 days


Legend
• Courses
NIIF courses can be taken in any sequence.

^ Capstone Project
Successful completion leads to the NUS Graduate Diploma in Software Architecture.

Learning Outcomes

Certificate in Software Architecture – Foundations
- Analyse business needs and requirements
- Design software applications using object-oriented techniques and patterns
- Design cloud-enabled mobile applications
- Demonstrate your skills through a project

Certificate in Software Architecture – Solutioning
- Architect enterprise-scale software solutions
- Architect software solutions that utilise cloud services
- Incorporate security in the software architecture
- Demonstrate your skills through a project

Software Architecture and Design Project (Capstone Project)
- Demonstrate your competency in architecting and designing the software architecture of a real-world system
- Develop confidence in solving complex architecture and design challenges

Possible job roles:
- Software Engineer
- Software Designer
- Lead Software Developer
- Software Architect
- Solutions Architect
- Head of Software Engineering
- Software Architect
- Solutions Architect
- Head of Software Engineering
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

Digital Solutions Development

Leading to the

NUS Graduate Diploma in Systems Analysis

NUS-ISS Stackable Certificate Programmes in

Business Analytics

Leading to the

NUS Master of Technology in Enterprise Business Analytics

Admission Criteria

NUS-ISS Certificate in Software Architecture - Foundations

NUS-ISS Certificate in Software Architecture - Solutioning

Applicants should have at least two years of relevant work experience.

NUS Graduate Diploma in Software Architecture

- Have at least two years of relevant experience
- Possess at least a Bachelor’s degree from a recognised university
- Have obtained the:
  - NUS-ISS Certificate in Software Architecture - Foundations
  - NUS-ISS Certificate in Software Architecture - Solutioning