NUS School of Computing
Master of Computing (by coursework) – General Track
(Effective August 2021)

List of Courses

1. Essential Courses (24 Units) – Complete 6 Courses

Students can only read a <u>maximum</u> of 6 essential courses.

IT5001 Software Development Fundamentals
IT5002 Computer Systems and Applications
IT5003 Data Structures and Algorithms
IT5004 Enterprise Systems Architecture Fundamentals
IT5005 Artificial Intelligence
IT5006 Fundamentals of Data Analytics
IT5007 Software Engineering on Application Architecture

2. Capstone Project (12 Units)

CP5105 Computing Capstone Project
CP5106 Computing Capstone Project (with Internship) (8 Units) + Industry Readiness Courses (4 Units)

3. Elective Courses (16 Units)

Students may select any four elective courses from the list below and also from other 4000/5000 level courses that are being offered in the School of Computing. To illustrate, below we provide sampler of courses organised by the different computing fields.

    i.   Computing Systems
        CS5222 Advanced Computer Architecture
        CS5223 Distributed Systems
        CS5224 Cloud Computing
        CS5229 Advanced Computing Networks
        CS5239 Computer System Performance Analysis

    ii.   Cybersecurity
        CS5231 Systems Security
        CS5321 Network Security
        CS5331 Web Security
        CS5439 Software Security
        IS5151 Information Security Policy and Management
        IS4234 Compliance and Regulation Technology

    iii.   Data Analytics
        BT4212 Search Engine Optimization and Analytics
        CS5228 Knowledge Discovery and Data Mining
        CS5425 Big Data Systems for Data Science
        IS5126 Hands-on with Applied Analytics
        IS5152 Data-Driven Decision Making

iv. Enterprise IT
IS5003 Platform Design and Economy
IS5004 Enterprise Architecture
IS5005 Digital Engagement
IS5128 Digital Innovation
IS4301 Agile IT with DevOps

v. Financial Technology (FinTech)
IS5002 Digital Transformation
IS5006 Intelligence Systems Deployment
IS5008 Technology Risk and Cyber Resilience
IS5009 Topics in Financial Technology Solutions
IS4302 Blockchain and Distributed Ledger Technologies

vi. Robotics
CS5340 Uncertainty Modelling in AI
CS5446 AI Planning and Decision Making
CS5477 3D Computer Vision
CS5478 Intelligent Robots: Algorithms and Systems

vii. Software Methodology
CS4218 Software Testing
CS5214 Design of Optimising Compilers
CS5218 Principles and Practice of Program Analysis
CS5219 Automated Software Validation
CS5232 Formal Specification & Design Techniques