

## The Teaching of Lower Secondary Mathematics

Course Code	Course Title	Course Category	No of AUs	Pre-requisites
QCM53A	Teaching and Learning of Secondary Mathematics I (Lower Secondary)	Core	3	-
QCM53B	Teaching and Learning of Secondary Mathematics II (Lower Secondary)	Core	3	-
QCM53C	Teaching and Learning of Secondary Mathematics III (Lower Secondary)	Core	2	-
QCM53D	Teaching and Learning of Secondary Mathematics IV (Lower Secondary)	Core	3	-

### QCM53A Teaching and Learning of Secondary Mathematics I (Lower Secondary)

The main objective of this course is to equip pre-service teachers with a working knowledge of basic teaching principles and an overview of the Singapore Secondary Mathematics Curriculum. The content of this course includes mathematics curriculum in Singapore; mathematical problem solving; teaching of mathematical topics – Arithmetic, Algebra, Functions and Graphs.

### QCM53B Teaching and Learning of Secondary Mathematics II (Lower Secondary)

The course is designed to equip pre-service teachers with an understanding of the theories of learning that inform instruction as well as the practice of classroom skills and preparation based on such theories. The content of this course includes learning theories in mathematics; lesson planning; role of ICT in mathematics education; hands-on learning using Dynamic Geometry software; teaching and learning of mathematical topics – Mensuration, Geometry and Trigonometry.

**QCM53C Teaching and Learning of Secondary Mathematics III  
(Lower Secondary)**

This course seeks to help pre-service teachers extend their knowledge of pedagogy to include more complex teaching strategies. The content of this course includes teaching of mathematical topics – Sets, Probability and Statistics.

**QCM53D Teaching and Learning of Secondary Mathematics IV  
(Lower Secondary)**

This course seeks to provide pre-service teachers with an overview of assessment in teaching secondary mathematics, with an emphasis on test construction and design of alternative assessment tasks. This course will also provide opportunity for pre-service teachers to teach mathematics topics and practise their teaching skills.