Master of Education (Mathematics)

Course Code	Course Title	Course Synopses	AU
MED900	Educational Inquiry	This course introduces participants to the fundamental processes involved in conducting research such as formulating research questions, writing a review of the literature by synthesizing empirical studies, understanding various methodological approaches, collecting and interpreting research data. Participants in this course will have opportunities to develop the skills, knowledge and strategies needed to read, interpret, and evaluate the quality of research reports. In addition, participants will gain a critical understanding of quantitative, qualitative, and combined research approaches.	4
MED902	Integrative Project	This capstone course requires participants to identify an education issue which forms the focus of inquiry, locate and read the most relevant literature to generate suggested potential solution to address the problem. The solution should show evidence that they are able to take the available information and restructure it in an appropriate way to deal with the issue.	2
MME901	Theoretical Perspectives and Issues in Mathematics Education Research	This is a required specialisation course for the MEd (Mathematics) programme. It equips participants with foundational knowledge in mathematics education as preparation for specialisation elective courses in the programme. This course contributes to one of the programme objectives of providing the participants with a range of the big ideas in mathematics education theories and related research. This serves as an introductory course to induct participants into an inquiry disposition suitable to the disciplinary emphasis in mathematics education.	4

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Course Code	Course Title	Course Synopses	AU
MME903	Using Technology in Mathematics Education	This is a specialisation elective course for the MEd (Mathematics) programme. The course contributes to the following programme objectives particularly in the area of using technology in mathematics education: (1) provide participants with the knowledge and skills related to specific ideas in mathematics education; (2) develop the participants ability to relate the theoretical ideas in mathematics education to the authentic problems of practice faced by teachers in the classroom.	4
MME905	Assessment in Mathematics	This is a specialisation elective course for the MEd (Mathematics) programme. The course supports the objective of providing participants with the knowledge and skills related to the specific area of assessment in mathematics education. It mainly contributes to the following programme objectives particularly in the area of assessment in mathematics classrooms: 1. Develop participants knowledge in theories related to assessment in mathematics; 2. Develop participants knowledge and skills in identifying, analysing and remediating students misconceptions and errors in mathematics; 3. Develop participants knowledge of the issues, trends and emerging developments of assessment in mathematics education; and 4. Develop participants ability to relate the theoretical ideas in mathematics education to the authentic problems of practice faced by teachers in the classroom.	4
MME906	Curriculum Studies in Mathematics	This is a specialisation elective course for the MEd (Mathematics) programme. The course contributes to the following programme objectives particularly in the area of curriculum studies in mathematics: (1) develop the participants competencies in conducting educational research; (2) provide participants with the knowledge and skills related to specific ideas in mathematics education.	4

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Course Code	Course Title	Course Synopses	AU
MME913	Algebra and the Teaching of Algebra	This is a specialisation elective course for the MEd (Mathematics) programme. This course contributes to the following programme objectives particularly in the area of algebra and its teaching: (1) build the participants knowledge of the mathematics subject matter; (2) develop the participants competencies in conducting educational research. In addition, the course also addresses teachers and students misconceptions in the learning of algebra in support of another programme objective of providing participants with knowledge related to specific ideas in mathematics education.	4
MME915	Geometry and the Teaching of Geometry	This is a specialisation elective course for the MEd (Mathematics) programme. This course contributes to the following programme objectives particularly in the area of geometry and its teaching: (1) build the participants knowledge of the mathematics subject matter; (2) develop the participants ability to relate the theoretical ideas in mathematics education to the authentic problems of practice faced by teachers in the classroom. In addition, the course also covers students misconceptions in the learning of geometry in support of another programme objective of providing participants with knowledge related to specific ideas in mathematics education.	4
MME916	Statistics and the Teaching of Statistics	This is a specialisation elective course for the MEd (Mathematics) programme. This course contributes to the following programme objectives particularly in the area of statistics and its teaching: (1) build the participants knowledge of the mathematics subject matter; (2) provide participants with the knowledge and skills related to specific ideas in mathematics education.	4

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Course Code	Course Title	Course Synopses	AU
MME917	Problem Solving and the Teaching of Problem Solving	This is a specialisation elective course for the MEd (Mathematics) programme. This course contributes to the following programme objectives particularly in the area of mathematical problem solving and its teaching: (1) provide participants with the knowledge and skills related to specific ideas in mathematics education; (2) develop the participants ability to relate the theoretical ideas in mathematics education to the authentic problems of practice faced by teachers in the classroom. In addition, the course also serves to develop the participants critical, reflective, and creative thinking when solving mathematics problems.	4
MME921	Singapore Primary School Mathematics	This is a specialisation elective course for the MEd (Mathematics) programme. The course contributes to the following programme objectives particularly in the area of teaching primary school mathematics in Singapore: (1) provide participants with the knowledge and skills related to specific ideas in mathematics education; (2) develop the participants ability to relate the theoretical ideas in mathematics education to the authentic problems of practice faced by teachers in the classroom.	4

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Course Code	Course Title	Course Synopses	AU
MME922	Numbers and the Teaching of Numbers	This is a specialisation elective course for the MEd (Mathematics) programme. This course contributes to the following programme objectives particularly in the area of numbers and its teaching: (1) build the participants knowledge of the mathematics subject matter; (2) develop the participants ability to relate the theoretical ideas in mathematics education to the authentic problems of practice faced by teachers in the classroom. In addition, the course also covers students misconceptions in the learning of numbers in support of another programme objective of providing participants with knowledge related to specific ideas in mathematics education.	4
MME923	Psychology of Learning Mathematics at the Primary Level	This is a specialisation elective course for the MEd (Mathematics) programme. The course contributes to the following programme objectives particularly in relation to the psychology of learning mathematics at the primary level: (1) develop the participants competencies in conducting educational research; (2) provide participants with the knowledge and skills related to specific ideas in mathematics education.	4

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Course Code	Course Title	Course Synopses	AU
MME931	Contemporary Issues in Mathematics Education	This is a specialisation elective course for the MEd (Mathematics) programme that offers special topics in mathematics education. It contributes to one or more of the following programme objectives: (1) develop the participants competencies in conducting educational research; (2) provide participants with the knowledge and skills related to specific ideas in mathematics education; (3) develop the participants ability to relate the theoretical ideas in mathematics education to the authentic problems of practice faced by teachers in the classroom; (4) develop the participants ability to relate the theoretical ideas in mathematics education to the authentic problems of practice faced by teachers in the classroom, or (5) develop the participants disposition of inquiry towards issues and topics in mathematics education. This course also serves to enhance the programme by tapping into the knowledge and expertise of researchers who are involved in cutting edge research in this field of study. This course may be structured in such a way that it is offered as an intensive course within a short period of about two weeks. As such, it is suitable for full-time students or students who need to take courses over a shorter period of time.	4

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Course Code	Course Title	Course Synopses	AU
MME932	International Issues in Mathematics Education	This is a specialisation elective course for the MEd (Mathematics) programme that offers special topics in mathematics education. It contributes to one or more of the following programme objectives: (1) develop the participants competencies in conducting educational research; (2) provide participants with the knowledge and skills related to specific ideas in mathematics education; (3) develop the participants ability to relate the theoretical ideas in mathematics education to the authentic problems of practice faced by teachers in the classroom; (4) develop the participants ability to relate the theoretical ideas in mathematics education to the authentic problems of practice faced by teachers in the classroom, or (5) develop the participants disposition of inquiry towards issues and topics in mathematics education. This course also serves to enhance the programme by familiarising the participants with the current trends in international research in mathematics education. Instructors of the course may be visiting international researchers who are involved in cutting edge research in this field of study. This course may be structured in such a way that it is offered as an intensive course within a short period of about two weeks. As such, it is suitable for full-time students or students who need to take courses over a shorter period of time.	4