

Master of Education (Educational Assessment)

Course Code	Title	Description	AU
<u>Core</u>			
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
<u>Required Specialisation</u>			
MAX901	Assessment Principles and Methods	A foundational knowledge of measurement and assessment in education is requisite to the MEd (Educational Assessment) specialization. This course introduces participants to the general process of educational assessment and the key concepts, principles, and techniques of assessment. The course covers the role of assessment and measurement in teaching and learning; concepts of validity, reliability and usability; assessment purposes and strategies (e.g., assessment of and for learning); test construction and techniques of assessment (e.g., performance assessment); test theories; and analysis, interpretation and use of assessment results.	4
MAX902	Paradigms and Practices of Assessment	This course seeks to provide strong fundamentals for participants to acquire a critical level of foundational assessment literacy, engage with different paradigms of knowledge, and be proficient in the application of key assessment practices. Assessment is posited as the object of study, and also as the key driver for designing the structure, pacing, and pitching of the course content. Participants are required to grapple with a range of assessment concepts, some of which are not literally nor easily reconcilable, and to distil a conceptual clarity from which they may interrogate their own assessment practice contexts.	4

Specialisation Elective* (Choose any 3 courses)			
<i>Measurement and Evaluation</i>			
MAX911	Item Response Theory	The student will learn the theoretical foundation for the construction of tests and analyses of test scores. It introduces the concepts and techniques of classical test theory and item response theory. The student will: <ol style="list-style-type: none"> 1. Examine the use and the impact of these theories in achievement testing, large-scale testing, and comparison of student achievement across different educational and social settings. 2. Learn to use computer programmes to analyse test data. 3. Discuss applications of these theories including objective measures, detection of item- or test-bias, differential item functioning, and computerised adaptive testing. 	4
MAX912	Theory and Assessment of Psychological Constructs	At the end of the course, students will be able to: <ol style="list-style-type: none"> 1. Understand the principles of affective measurement and assessment, and psychological scaling methods 2. Select published psychological scales, or to adapt or construct relevant affective measures 3. Develop a scale to assess psychological constructs 	4
MAX913	Programme Evaluation	It is important that stakeholders are able to know if current programmes in schools and organisations are effective and are bringing about the intended outcomes as planned. Periodic monitoring is also important to ensure that the standard and quality of the programmes remain robust. This course is therefore designed to help practitioners learn the skills of programme evaluation to enable them to appraise educational, social and community programmes in their organisations in a scientific and systematic manner - one that is grounded in the science of programme evaluation. As a specialisation elective, the course caters to the interested MEd (Educational Assessment) student.	4
MAX914	Assessment and Development of 21st Century Competencies	The 21st century is often described as a VUCA world one that is volatile, uncertain, complex, and ambiguous. With new demands coming from the 21st workplace, it is thus imperative for educators in various educational institutions to develop students	4

		capacities to match the needs of the students future workplace. This thus indicates an imperative need to change the way educators craft their lessons and learning tasks so as to provide students with ample opportunities to gain authentic learning experiences and enable the transfer of relevant knowledge and skills from their classrooms to solve real world problems.	
<i>Curriculum and Assessment</i>			
MAX921	Design of Assessment Systems	Designing an assessment system that is aligned with the curricular or programme goals is essential for the MEd (Educational Assessment) graduate. A comprehensive assessment system comprises both formative and summative aspects and this course introduces participants to the general principles of assessment system design. Participants also examine the relation between assessment and learning, and explore current relevant issues pertaining to assessment.	4
MAX922	Assessment Feedback for Improvement and Learning	This course seeks to provide strong fundamentals for participants to acquire critical awareness of key issues and core tenets of instructional feedback as a key assessment practice. Feedback is discourses as integral to pedagogy and curriculum, and posited as the primary and pervasive dialogue in which learners can identify and address their learning gaps with teachers and peers. The multi-faceted dimensions and purposes of feedback practice are presented, including feedback as pedagogy and/or partnership, and feedback for performance, receptivity, and resilience.	4
MAX923	Rethinking Assessment in School, for Society: Standards, Fairness, and Meritocracy	This course seeks to provide a sociological perspective in analysing assessment practices globally and in Singapore, particularly in terms of educational narratives of standards, fairness, and inclusiveness. At the end of the course, students are capable in (a) situating history of assessment within emergence of modern society, (b) exploring social roles and purposes of assessment with case studies in Singapore and elsewhere (c) navigating the tensions and intersections of educational standards, meritocracy, and social justice in assessment, (d) imagining new ways of doing assessment for self-directing learning based on educative plural values. Overall, this course will provide teachers with insights into why they practice assessment in the way they do and prepare them for alternative ways of imagining assessment futures for greater fairness and inclusivity.	4

	Theory and Practice of Authentic Assessment	This course aims to provide participants with a sound grasp of the theoretical underpinnings of authentic assessments as well as practical skills needed for designing authentic assessments. More specifically, it aims to provide participants with 1) conceptual clarity on authenticity 2) principles for designing quality authentic assessments; 3) a critical perspective of the role of authentic assessment within Singapore's educational system. The course will be conducted through discussions, group presentations, online forums, and hands-on activities. Participants are expected to critically appraise literature on authentic assessments and to develop an authentic assessment that will enhance the learning of their students.	4
	Assessment Leadership	This course aims to develop teachers' assessment leadership in ways relevant to the Singapore context and in alignment with regional and global priorities. Learning, practice and project opportunities are given at all grade levels on how to interact with policy, practice and theory in order to negotiate and manage assessment change. Assessment leadership is the application of assessment literacy to inform educational administration, decision-making, and change management. Assessment literacy and leadership are recognized priorities locally, regionally and globally. In Singapore, this prioritization is embodied in policy/practice initiatives such as PERI, Holistic Assessment, Balanced Assessment and assessment of the 21CCs.	4
	Student Involvement in Assessment for Empowerment and Learning	Assessment drives learning. Hence, any desired changes to learning to help prepare students to be independent, critical thinkers should permit them some role(s) and responsibilities for their own assessment. Hence, traditional paradigms of teacher-centric instruction and assessment have been criticized, and there has been an international shift in the focus of instruction and assessment from teaching to learning. For example, Assessment for learning (AfL) places students in the centre of the learning process by engaging them actively and continuously in their learning and growth and thus, enabling students to take ownership of and enhance their own learning. However, it cannot be assumed that every instance of involving students in their own assessment would necessarily empower the students, and their learning. Research and scholarship warns of the risk that self- and peer-assessment may discipline and disempower students, instead of enhancing their learning and developing their autonomy. There is therefore a great need to critically appraise how student involvement in assessment can be conceptualised and practiced in ways that empower and enhance their learning. This course aims to build and develop teachers	4

		awareness and knowledge of student-involved assessment in ways relevant within their institutional context and to the Singapore context, and to explore critical notions of power and assessment. It also includes an experiential component for participants to be involved in part of the assessment in the course, as a shared context for the class to discourse and discuss the complexities and issues that come with vesting greater opportunity, and responsibility, in assessment to learners.	
<i>Special Topics</i>			
MAX931	Practices of Certification Examinations	This course focuses on the practices of developing certification or external examinations by testing agencies such as examination boards. The topics covered in the course involve test specialists roles, activities, deliverables, outcomes, and interests in the delivery of certification examinations. Across the topics, there will be emphasis on technical skills, practice philosophy, thinking and decision-making processes, ethical standards, codes of conduct, and professional responsibility. While the primary aim is to equip students with the knowledge, skills, and values of a test specialist in delivering certification examinations, the course may also be useful to those who work with test specialists (e.g., curriculum planners and developers, examination regulators, contractors, trainers, and services suppliers) in an effective education system. Students whose professional roles are classroom teachers may be interested to know more about the work of test specialists in test agencies.	4
MAX932	Assessment of Children and Youth with Special Needs	The increased identification of children with special needs entails a more nuanced approach towards educational programming. The diverse profile that students with special needs requires a detailed assessment of their individual strengths and needs. This course offers an introduction to assessment and testing of children with special needs. It combines the introduction of the theories and concepts in assessment, with evidence-based practices when assessing children. Participants in this course will have direct experiences with screening, standardized, criterion-referenced, and behavioral assessment. Through these experiences, they will link the theories and concepts in measurement and child development with the practical guidelines, procedures, and applications.	4
	Technology Supported Assessment	The course covers the following aspects relating to technology supported assessment: (1) theories and approaches in assessment, with more focus on assessment for learning/formative assessment, (2) pedagogies and approaches in designing	4

		assessment with technology, (3) principles for the appropriate use of technology supported assessment, and (4) benefits and challenges, barrier and enablers in technology supported assessment.	
	Rethinking Assessment from, and for, the Science of Learning	The Science of Learning (SoL) frontier draws upon a science- based understanding of the effectiveness of education methods as well as develop new teaching and learning strategies that can lead to actionable and scalable interventions for enhanced learning outcomes. But what constitutes a learning outcome, and what purposes the learning is fit for are contested and complex questions that depend on how and why such learning is assessed in the first place. Furthermore, SoL discourse assumes a paradigm and theory of learning that may be in tension with scientific notions of assessment theory. Hence, it cannot be assumed that the requisite learning outcomes from a SoL approach is compatible, let alone synergistic, with assessment practices and paradigms. It is therefore imperative to understand how assessment theories and practice posit the epistemology of learning outcomes, and how assessment theories may help or hinder the SoL agenda. In turn, advances in SoL research is an invaluable opportunity for the scientific perspectives of assessment theories to be revisited.	4
<i>Statistics</i>			
MED903	Elementary Statistics for Education	This course provides the MEd (Educational Assessment) graduate student with the skills and understanding of elementary statistics and their applications in the social and behavioural sciences. Basic statistical literacy is required in a critical reading of research literature and in conducting sound research. It is essential knowledge for a MEd (Educational Assessment) graduate working in the field of educational measurement and evaluation.	4
MED904	Multivariate Statistics	This course is designed for higher degree students who want to apply different multivariate statistical methods into applied fields such as educational measurement, experimental/quasi-experimental studies and correlational studies. The students will get hands-on experience in running SPSS and AMOS to analyze data.	4
MED905	Applied Regression Analysis	This course is designed to equip higher degree students as well as teachers with the basic concepts and methods of regression analysis. The course will cover how regression analysis can be applied to answering research questions, in particular, in the educational context. The students will get hands-on experience in running relevant	4

		statistical software to run regression analyses to analyze data.	
Plus either: <ul style="list-style-type: none"> • a dissertation or • two additional courses (MED902 Integrative Project and one open elective course) 			
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