

Please read Guidance 3xviii in order to complete this form.

**New Module Form/Module Narrative**

1.	<b>Module code:</b>	DAPP22-03
2.	<b>Title:</b>	Psychometric Assessment of Maths-related Difficulties
3.	<b>Credit points:</b>	30
4.	<b>FHEQ level:</b>	7
5.	<b>Start term:</b>	Autumn, Spring, Summer
6.	<b>Module leader:</b>	Gill Cochrane
7.	<b>Accredited by:</b>	
8.	<b>Module restrictions:</b>	
	(a) Pre-requisite	DAPP22-02 studied.
	(b) Programme restrictions	None
	(c) Level restrictions	None
	(d) Other restrictions or requirements	None
9.	<b>Aims:</b>	To introduce the principles of psychometric assessment. To give practitioners knowledge a set of standardised assessment tools that appraise cognitive processes linked to mathematical reasoning and the associated statistical analysis and reporting methods.
10	<b>Learning outcomes:</b> <i>(Knowledge and Skills sections can be merged if appropriate)</i>	
	<b>Knowledge and Skills</b>	
	On successful completion of this module, the student will be able to:	
		<ol style="list-style-type: none"> <li>1. Accurately process and interpret statistical information relevant to the context.</li> <li>2. Conduct an assessment of cognitive processing associated with mathematical development using standardised and non-standardised methods in a manner that demonstrates understanding of the psychometric assessment process.</li> <li>3. Construct an assessment report for a learner that effectively appraises the cognitive processing processes associated with maths-related difficulties.</li> </ol>
11	<b>Syllabus:</b>	<ul style="list-style-type: none"> <li>● Statistical knowledge associated with educational assessment.</li> <li>● Assessment administration and scoring skills.</li> <li>● Familiarisation with a test battery of general cognitive processing memory and learning.</li> <li>● Familiarisation with a test battery of mathematical performance</li> <li>● Critical examination of available quantifiers of mathematical skill/understanding (standardised methods).</li> <li>● Linking examinees' performance to recommendations/strategies to support understanding and skill development in learners.</li> <li>● Working within different assessment report formats.</li> </ul>

	<ul style="list-style-type: none"> <li>Using reflective models and structured self-evaluation materials to enhance professional performance.</li> <li>Developing consultative skills.</li> <li>Evaluating professional skills, responsibilities.</li> </ul>										
12	<p><b>Learning and teaching strategy:</b></p> <p><b>Learning and teaching</b> will be via a module on a virtual learning environment (VLE).          Module activities include:</p> <ul style="list-style-type: none"> <li>Formative exercises such as multiple-choice quizzes with instant feedback, short-answer questions.</li> <li>Problem-based learning scenarios.</li> <li>Directed reading of selected papers, book chapters, specialist online materials.</li> <li>Use of case study examples, videos and other learning materials.</li> </ul> <p>The online learning environment supports a collaborative learning environment with:</p> <ul style="list-style-type: none"> <li>Fellow students via peer review, presentations by students, group forums and participation in online discussion forums.</li> <li>Interaction with tutors including receiving feedback, support (for learning, technical questions and course administration) via private messaging and forums.</li> <li>Both students and tutors via forums and webinars (online seminars, live and recorded) by tutors and visiting professionals and academics.</li> </ul>										
13	<p><b>Assessment scheme:</b></p> <p><b>(a) Formative assessment scheme</b> (for example, would include but not be limited to):</p> <ul style="list-style-type: none"> <li>Quantitative and Qualitative Dimensions of Psychometric Assessment:             <ul style="list-style-type: none"> <li>Numerical questions (formulae, score conversion and transformations).</li> <li>Short answer conceptual questions.</li> </ul> </li> <li>Report-writing Task: Generate an assessment report from a case study dataset that includes background details and qualitative data.</li> <li>Observed Administration: Self-reflection on assessment administration, scoring and score transformation in order to support future professional development of administration practice using a digital recording of practice submitted for tutor review.</li> </ul>										
	<p><b>b) Summative assessment scheme</b></p> <table border="1" data-bbox="263 1541 1465 1968"> <thead> <tr> <th>Task</th> <th>Weighting</th> <th>Word count</th> <th>LO mapped to</th> <th>Ethics approval required</th> </tr> </thead> <tbody> <tr> <td> <b>Quantitative Dimensions of Psychometric Assessment Portfolio</b> (for example, including):                             <ul style="list-style-type: none"> <li>Numerical questions (formulae, score conversion and transformations).</li> <li>Short answer conceptual questions.</li> </ul> </td> <td>20</td> <td>1000</td> <td>1</td> <td><input type="checkbox"/> No</td> </tr> </tbody> </table>	Task	Weighting	Word count	LO mapped to	Ethics approval required	<b>Quantitative Dimensions of Psychometric Assessment Portfolio</b> (for example, including): <ul style="list-style-type: none"> <li>Numerical questions (formulae, score conversion and transformations).</li> <li>Short answer conceptual questions.</li> </ul>	20	1000	1	<input type="checkbox"/> No
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	<b>Assessment Report:</b> Construct a professional assessment report for an examinee that displays knowledge of the cognitive processing differences associated with maths-related difficulties. Reflect upon own practice to enhance future professional development	80	4000	2, 3	<input type="checkbox"/> No
Do all assessments need to be passed in order to pass the module <b>Yes</b>					
Seen examination		n/a			
Unseen examination		n/a			
Coursework (no examination)		100%			
14	<b>Timetabled examination required</b>	No			
15	<b>Length of exam</b>	n/a			
16	<b>Learning materials</b> <p>Many of the learning materials have been purpose-written for the module and are available on the learning platform.</p> <p>Most other reading materials that are part of the core materials can be accessed via links to the Dyslexia Action Electronic Library or via EBSCO Host.</p> <p>Essential Assessment Equipment:</p> <p>This is a professional practice module; students need access to the tools used by qualified assessors of mathematical performance. These are provided with restricted access/right of use whilst students are in training. Examples of such materials include:</p> <ul style="list-style-type: none"> <li>Reynolds, C.R. &amp; Bigler, E.D. (2007). <i>Test of Memory and Learning 2 (TOMAL 2)</i>. Pro-Ed.</li> <li>Feifer, S.G. &amp; Kovach Clark, H. (2016). <i>The Feifer Assessment of Mathematics (FAM)</i>. Psychological Assessment Resources (PAR)</li> </ul> <p>Essential Readings:</p> <ul style="list-style-type: none"> <li>Coaley, K. (2014). An introduction to psychological assessment and psychometrics. Sage</li> <li>Goldfinger, K., &amp; Pomerantz, A. M. (2014). <i>Psychological assessment and report writing</i>. Sage.</li> <li>Boyle, J. and Fisher, S. (2007) Educational Testing: A Competence-Based Approach. BPS Blackwell: Oxford</li> <li>Kaufmann L, von Aster M (2012) The diagnosis and management of dyscalculia. <i>Deutsches ärzteblatt international</i>, 109(45): 767–78.</li> <li>Attout L., Majerus S. (2018) Serial order working memory and numerical ordinal processing share common processes and predict arithmetic abilities. <i>British Journal of Developmental Psychology</i> 36:2 DOI: 10.1111/bjdp.12211.</li> </ul> <p>Recommended:</p>				

	<ul style="list-style-type: none"> <li>Kroesbergen, E., Van de Weijer-Bergsma, E., Van Luit, J. (2015) Verbal and visuospatial working memory and mathematical ability in different domains throughout primary school. Mem Cogn 43:367–378 DOI 10.3758/s13421-014-0480-4.</li> </ul>
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<b>Programme(s) using this module (please submit a Programme Change Form and updated Programme specification):</b>		
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Programme code(s)	Programme title(s)	Core/Optional
n/a		

<b>Validated collaborative partner (if applicable):</b>
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n/a
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**Consultation**

The following should be consulted. The checklist below may be used:

University link tutors (if appropriate)	Yes
Students (via Programme Voice Groups and other channels of communication e.g. intranet)	Yes
External Examiner(s)	Yes