

Module Specification

Module Summary Information

1	Module Title	Advanced Gemmology and Analytical Techniques
2	Module Credits	60
3	Module Level	6
4	Module Code	GEM6008

5	Module Overview
<p>Advanced gemmology and analytical techniques is designed to equip you with both the theory, intellectual context and application of the 'state of the art' scientific testing techniques utilised in both the gem and diamond industries. It will also provide you with the intellectual skills and confidence required to tackle challenges you will encounter in your future career. The module is designed to encourage you to explore, investigate and research as inherent aspects of the learning process. To allow you to develop the transferable skills of problem solving and self-reliance.</p> <p>The module includes exploring current challenges, research, developments and technology used within the industry allowing you to consider the latest concepts and gain a current insight into industry best practice.</p>	

6	Indicative Content
<p>Lectures, Tutorials, Practical demonstrations, Learning resources available through Moodle, Formative assessment through quizzes and tasks delivered through Moodle, Project and coursework delivered through Moodle, Supervised practical classes, Visits to external facilities and potential employers, Research using library and internet resources, Learning outcomes from guided self-discovery and learning tasks requiring research.</p>	

7	Module Learning Outcomes
On successful completion of the module, students will be able to:	
1	Investigate advanced gemstone testing theory and practice, including analysis of appropriate advanced testing techniques.
2	Analyse and explain crystallographic concepts, and the geology of gem deposits.
3	Select appropriate applied spectroscopic methods to answer gemmological questions.

8	Module Assessment		
Learning Outcome			
	Coursework	Exam	In-Person
1		X	
2		X	
3		X	

9 Breakdown Learning and Teaching Activities	
Learning Activities	Hours
Scheduled Learning (SL) includes lectures, practical classes and workshops, peer group learning, Graduate+, as specified in timetable	150
Directed Learning (DL) includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning, as directed on VLE	330
Private Study (PS) includes preparation for exams	120
Total Study Hours:	600