

Assessment Details



Provider Based Assessment

The internal provider based assessment will contribute 70% of the final student mark.

Study Area	Assessment	Weightage
Power Functions & Applications	Task 1: Progress Test	5%
Power Functions & Applications	Task 2: Language Test	5%
Power Functions & Applications	Task 3: Topic Test	15%
Exponential, Logarithmic & Circular Functions	Task 4: Topic Test	15%
All the 3 study areas	Task 5: Application Task Task 5a – Group Task Task 5b – Individual Task	20%
Ongoing	Task 6: Participation	10%



COURSE OUTLINE

MUF0091 Mathematics Unit 1: Functions and Calculus

Subject Learning Outcomes (SLO)

Students are able to

SLO1: State the mathematical formulas related to functions and calculus.

SLO2: Apply properties of various functions and calculus in the solution of problems.

SLO3: Solve the underlying mathematical challenges by using mathematical procedures and skills routinely.

Timeline	Content	Assessment
Study Area 1: Power Functions and Applications		
Week 1: 23-26 January 2018	Introduction, Polynomial – expansion, factorization, Factor Theorem, Remainder Theorem, long division Intervals and Set Notations (SLO1, SLO2, SLO3)	Diagnostic
Week 2: 29 January-2 February	Defining Functions, Domain and Range. Functions: Quadratics, Transformations (SLO1, SLO2, SLO3)	Participation (Ongoing 10%)
Week 3: 5-9 February 2018	Functions: Cubic, Transformations, in Point of Inflection, Quartic, Hyperbolas (SLO1, SLO2, SLO3)	Monash Information Week GC Sales 5, 6, 7 Feb GC Briefing
Week 4 & Week 5: 12-23 February 2018	Functions: Square Root, Hybrid (SLO1, SLO2, SLO3)	(CNY break 14-20 Feb)

Week 6: 26 February-2 March 2018	Functions: Inverse (SLO1, SLO2, SLO3)	26-Feb: Task 1 (5%) Progress Test
Week 7: 5-9 March 2018	Applications of functions (SLO1, SLO2, SLO3)	5-Mar Task 2(5%) Submission
Study Area 2: Exponential, Logarithmic and Circular Functions		
Week 8: 12-16 March 2018	Index Laws, Indicial Equations, Logarithmic Laws and Logarithmic Equations Euler's Number and In, Exponential and logarithmic Graphs (SLO1, SLO2, SLO3)	12-Mar: Task 3 (15%) Topic Test 1
Week 9 19-23 March 2018	<i>Mid Semester Break</i>	
Week 10: 26-30 March	Inverse of exponential and logarithmic functions Exponential and Logarithmic Modelling, Applications of Exponential and Logarithmic functions (SLO1, SLO2, SLO3)	
Week 11: 2-6 April 2018	Radians, Unit Circle, Symmetry, Trigonometric Equations (SLO1, SLO2, SLO3)	Talent Quest 6 April
Week 12: 9-13 April 2018	Sine and Cosine Graphs and Applications (SLO1, SLO2, SLO3)	9-April: Task 4 (15%) Topic Test 2
Study Area 3: Introductory Calculus		
Week 13: 16-20 April 2018	Rates of Change, Graphs and Their Derivatives (SLO1, SLO2, SLO3)	
Week 14: 23-27 April	Derivative by Rule, Chain Rule, Derivative of e^x , $\ln(x)$, and Trigonometric Functions (SLO1, SLO2, SLO3)	MUFY GAMES 24 Apr
Week 15: 30 April-4 May	Product, Quotient Rule, Derivative Tables (SLO1, SLO2, SLO3)	3 & 4 May: Task 5a (5%) Group Task
Week 16: 7-11 May	Consolidation of Derivatives and Functions (SLO1, SLO2, SLO3)	8 May: Task 5b (15%) Topic Test 3 Mathematics Workshop (12-May, Saturday @ LT7)
Week 17: 14-18 May	Exam revision	
Week 18,19: 28 Oct–10-Nov 2017	Examination	Exam (30%)