ENGINEERING PLACEMENT TEST
FAQ SHEET

UNIVERSITY
OF WOLLONGONG
IN DUBAI

What is an Engineering Placement Test?

Engineering Placements Tests are available on the first semester for students enrolling for the Bachelor of Engineering (all majors) program. The tests would assess the student's fundamental understanding in Mathematics, Statistics and Physics which is highly essential for students enrolling for the Engineering Program.

Which subjects are the tests available for?

The placements tests are available in Engineering Mathematics/Statistics and Engineering Physics

Where can I find the date and time of the Engineering Placement Test?

Subject	Date	Time
MATH Engineering Placement test	Saturday – 18th September 2021	9am to 11am
PHYS Engineering Placement test	Saturday – 18th September 2021	12pm to 2pm

Am I eligible for the Engineering Placement Tests?

All students enrolling in the Bachelor of Engineering Program need to complete the placement tests in their first semester except for transfer students.

Where do I register?

All Engineering students can register by filling up the Placement Test Application form available with the Student Recruitment Officer. Please note that there is no payment/fee for the Placement tests.

What is the last date for to register for the Engineering Placement Test?

The last date to register for the tests is Orientation and Enrolment Day.

What is the format of the Placement tests?

Placements tests are MCQ questions involving problem solving.

What is the passing requirement for the Placement test?

A minimum of 60% must be scored by the student to pass the Engineering Placement Test.

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What happens if I get 60% and above in the test?

Student would be allowed to continue with MATH141 and ENGG102 subjects on their first semester which are first year Mathematical and Physics related subjects in the BE Program. Students who do not pass the tests successfully would be recommended by the academic advisor to enrol in Foundation Program subjects which would help them strengthen their fundamentals further in the Engineering Program.

**** Please note that Foundation Program subjects are additional subjects which are not a part of the BE Program but must be completed by students wherein recommended by the Program Directors.**

How will I be notified about my result?

You will receive a SOLSmail and email on your UOWmail regarding your placement test results. In case you do not receive them – please email us at FacultyOffice@uowdubai.ac.ae

Do I need a calculator for Engineering Placement test?

Yes. Students can use the calculators for the Placement test while solving the questions.

Whom do I contact for any academic inquiries regarding the Placement test at university?

You can email us at FEISAdminTeam@uowdubai.ac.ae and UG Freshmen Program Leader – Dr. Abdellatif Tchanchane – TchanLatif@uowdubai.ac.ae

ENGINEERING MATHEMATICS and STATISTICS SYLLABUS

Linear Function

- Representation of Sets in Mathematics
- Relations and functions
- Properties of functions, Linear equations, Parallel and perpendicular lines
- Applications of linear equations

Quadratic equations

- Applications of quadratic equations

Basic Algebra

- Piecewise functions
- Transformations of functions
- Algebra of functions, Inverse functions

Exponential Functions and Logarithmic functions

- Application of Logarithmic and Exponential Functions

Trigonometry

- Angles and Their Measure
- Right Triangle Trigonometry
- Trigonometric Functions of Any Angle
- Graphs of Sine and Cosine Functions
- Graphs of Other Trigonometric Functions
- Using Fundamental Identities
- Verifying Trigonometric Identities
- Solving Trigonometric Equations
- Inverse Trigonometric functions

Introduction to Calculus

- Average rate of change of functions, secant and tangent lines
- Introduction to Limit of functions, Instantaneous rate of change of functions
- Introduction to Differentiation, Differentiation By First Principles and 'By Rule', The Power rule: Negative and Fractional Powers
- Introduction to Integration, Indefinite integrals using the power rule, Using the Fundamental Theorem s Calculus

Introduction to Statistics

- Measures of central tendency – mean, median, mode.
- Measures of Spread – range, interquartile range, variance, standard deviation.
- Introduction to probability and statistical distributions

Link to eBook 1 -
https://www4.uowdubai.ac.ae/sites/default/files/documents/advanced_engineering2.pdf

Link to eBook 2 - https://uowd.box.com/s/tbjxk62r5h40aqbjofzdxiz6wz7vpihv

ENGINEERING PHYSICS SYLLABUS

Measurement and Experiment Techniques

- Units, Dimensions
- Significant figures
- Uncertainties
- Graphs in physics

Motion in One Dimension

- Displacement, Velocity and Speed, Acceleration
- One dimensional motion with constant acceleration
- Free falling objects, Acceleration of Gravity
- Kinematics equations derived from calculus

Vectors

- Addition and subtraction Rules

Motion in two Dimensions

- Projectile motion, Two-dimensional motion with respect to acceleration

Forces

- Newton's law, Weight, Tension

Mechanical Interactions

- Linear momentum, Impulse
- Conservation of Energy, Elastic Collision
- Work Energy and power

Static Electricity

- Electric Charge, The electroscope
- Charge distribution
- Coulomb's law

Electric Fields: Electric field, Electric potential

Electric Circuits

- Conductors and Insulators
- Ohm's law, Simple circuits, Series and parallel circuits

Electromagnetism

- Magnetic field

Link to eBook - https://uowd.box.com/s/5yj3n63i40bdfxhfk9y6otwbgm96nvh6