Alhamd Islamic University

Orientation Kit

Fall-2025

Department of Engineering & Technology

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Registrar's Office
Fall 2025 – Welcome Letter

Dear Student,

It is with great joy and warm greetings that we welcome you to the Alhamd family. Your admission marks the beginning of an inspiring journey of knowledge, personal growth, and spiritual enrichment.

At Alhamd Islamic University, we strive to integrate academic excellence with the eternal guidance of the Holy Qur'an and the noble example of the Prophet Muhammad ﷺ. We believe that true education nurtures not only the mind, but also the heart and soul—preparing individuals to serve their profession with integrity, their community with sincerity, and their Creator with devotion.

Our vision is to be a leading center of higher learning, offering programs that meet the evolving needs of our nation and the global community, while remaining rooted in Islamic moral principles. Through modern teaching methods, research, and skill development, we aim to prepare you for both the opportunities and the challenges of the contemporary world.

We encourage you to fully engage in your studies, participate in university life, and make the most of the academic and personal development opportunities available here. Remember, your time at AIU is not just about obtaining a degree—it is about shaping a purposeful life that benefits society and upholds the values of Islam.

On behalf of the University administration, faculty, and staff, I extend my heartfelt congratulations once again. We look forward to witnessing your achievements in this new chapter of your life. May Allah grant you success in all your endeavors.

Welcome to Alhamd Islamic University – where faith, knowledge, and service unite.

Sincerely,
Muhammad Naeem
Registrar
Alhamd Islamic University

Student Guidebook

University Calendar:

Alhamd Islamic University

ACADEMIC CALENDAR
QUETTA AND ISLAMABAD CAMPUS
FALL 2025

No: AIU/REG-4018/2025 Dated: 26th July, 2025

The semester calendar Fall-2025 for Al-Hamd Islamic University, both Islamabad and Quetta Campuses are hereby notified for information, record, reference, and compliance of all concerned.

EVENTS	DATE	DAY	WEEK
Admission Campaign and Registration Week	1st July to 24th Aug, 2025	Almost 2 x Months	.....
1st Entrance Test	16th Aug, 2025	SAT	.....
2nd Entrance Test	23th Aug, 2025	SAT	.....
*Rabi Ul Awal 12	24th Aug, 2025	SUN	1st
Orientation and Commencement of Classes	25th Aug, 2024	MON	1st
First Workshop Department Wise	29th Sept-4th Oct, 2025	MON-SAT	5th
Date Sheet Announcement for Mid Term	20th Oct, 2025	MON	8th
Mid Term Session	26th Oct- 1st Nov, 2025	MON-SAT	9th
Iqbal Day	9th Nov, 2025	SUN	10th
Second Workshop Department Wise	24th-29th Nov, 2025	MON-SAT	13th
Synopsis and Final Year Projects Defense	8th Dec, 2025	MON	15th
Teachers Evaluation by Students / Clearance	8th-13th Dec, 2025	MON-SAT	15th
Date Sheet Announcement (Final Exams)	15th Dec, 2025	MON	16th
Final Exams	22-31 Dec, 2025	MON-WED	18th-19th
Quaid Day	25th Dec, 2025	THURS	18th

NOTE: *Subject to the citation of the moon.

Registrar

Quetta Campus
Airport Road Quetta, Ph: 081-2301777

الحمد اسلامک یونیورسٹی
www.alhamd.pk www.aiu.edu.pk

Islamabad Campus
Shahpur Bhara Kahu, Ph: 051-2234

University Map:

Department contacts:

Coordinator	
Student Affair	03331535317
Examination Office	03331535341
Finance Office	03327895335

Rules & regulations

1. Semester Scheme

ALHAMD Islamic University follows the semester system wherein The Spring and The Fall semesters commence in March and August respectively, each comprising a period of eighteen weeks i.e. sixteen weeks of classroom studies, and two weeks of examination.

Induction of Winter Semester is subject to the need as it arises. However, this particular semester covers a shorter span of time, i.e. from December (on the conclusion of the Fall Semester) to February (prior to the commencement of the Spring Semester). Excerpt of the Academic calendar giving exact dates of commencement/completion of each semester are displayed on the notice board. Such excerpts also provide information regarding dates for supplementary activities such as, seminars, guest-speaker sessions, and field-visits which are academically planned for the semester.

2. Attendance Rule

Although the students are categorically motivated to attend cent-percent lectures and laboratory work pertaining to their courses of study yet at least 75% of the total lectures/lab work for each course is acceptable for appearance in the examination. It contributes the 10% of the total marks per subject.

3. Change in Courses

Once registered for a semester, students may add or drop courses only with the approval of their Deans and in compliance with the prescribed procedures and time-constraints. Courses dropped during such a period are not shown on the semester results.

4. Grading System

Depending strictly upon academic performance, students are awarded grades A+, A, A-, B+, B, B-, C+, C, C-, D+, D, F, I, W for each course. These grades indicate the following levels of achievement.

A	**Excellent**
B	Good
C	Adequate
D	Minimum Acceptable
F	Fail
I	Incomplete
W	Withdrawn

The Grade Point Average of a particular course is calculated by the formula as follows:

GPA = ((M-50)/12) + I where M is the marks obtained in a particular course and 86 > = M >=50

The grade and the threshold levels in terms of marks for each letter grade are given below:

Grade	Marks			GPA
A+	90 or above			4.00
A	86-89			4.00
A-	82-85			3.67-3.92
B+	78-81			3.33-3.58
B	74-77			3.00-3.25
B-	70-73			2.67-2.92
	C+	66-69	2.33-2.58	
C-	C	62-65	2.00-2.25	
D-	58-61			1.67-1.92
D+	54-57			1.33-1.58
D	50-53			1.00-1.25
F	49 or below			0.00

The Grade Point Average calculation ensures a continuous scale for the respective grade. The grade issued by AIU will be considered as 'Final'. Two types of average will be computed to determine the grade obtained by each student i.e. the Semester Grade Point Average (SGPA) and the Cumulative Grade Point Average (CGPA).

Grade Point Average (GPA) Computation:

$$\text{GPA} = \frac{\text{Sum over all courses in a Semester (Course Credit Hours x Grade Point Earned)}}{\text{Total Semester Credit Hours}}$$

Cumulative Grade Point Averages (CGPA) Computation:

$$\text{CGPA} = \frac{\text{Sum over all taken courses in all Semesters (Course Credit Hours x Grade Point Earned)}}{\text{Total Credit Hours taken in all Semesters}}$$

5. Registration Schedule

Students have to register for their courses during the period specified for the purpose before the commencement of a semester. Prior to the beginning of every semester the Registrar Office will notify the registration deadline. Requests for late registration, spelling out valid reasons may be entertained by the Rector till the end of the third week of a particular semester. However, such students would need to pay a late fee equivalent to Rs. 500/- per day.

6. Withdrawal from Courses

Students may withdraw from one or more courses with the approval of the Dean between the 04-06 week of a semester. In such cases however, grade W would appear on their transcripts. Any withdrawal after the 06 week wraps up with Grade F in connection with the withdrawn course.

7. Incomplete 'I' Grade

An 'I' Grade would be given to the students in a course if:

1. They could not appear in the final examination due to valid medical reasons.
2. They did not comply with course requirements within the prescribed time-limits, and the instructor were convinced that it owed to the circumstances beyond their control, and that only a minor component of the course was outstanding.

The unsettled requirement in such cases is to be dealt with during the first two weeks of the next semester, and the responsibility to make arrangements for the purpose with their instructors would lie on part of the students themselves. Failing this the 'I' Grade would be demoted to Grade 'F'. The students acquiring Grade 'I' cannot be reregistered for a course in which they secured 'I' Grade. In such a case the grade point average of a student for the semester is calculated excluding the 'I' Grade, is further re-calculated when a regular grade has been achieved by the student in aforesaid course.

8. Repeating Courses

Courses in which students secure 'F' Grade, and which are a requirement for the degree, have to be repeated in entirety. They may choose a substitute course only if there exists an alternative in the curriculum. Students can repeat the courses for which they obtained 'D+' or 'D' Grade on the condition that they would accomplish such repetition within 3 semesters following the semesters in which they obtained above mentioned Grades. In case of repeated courses, all Grades achieved by the students would appear in their transcripts. However, only the latest Grade would be counted for the Cumulative Grade Point Average.

9. Interruption of Studies

If a student interrupted the study programs for a period longer than one semester then, upon his return, all the credits previously earned by him at the institution would be evaluated by the Dean to determine their relevance to the changes made in the curriculum; if any change were made at all. Under such conditions the students might be required to modify their degree plan to ensure conformity to the latest version of the curriculum.

10. Mechanism of Assessments and Examinations

All courses comprise formal weekly lectures including tutorials, laboratory work, discussion sessions and seminars.

Some courses involve project/field-work with demonstration and/or written presentation.

Midterm examinations will be conducted in the middle of each semester. Similarly, final semester examinations will commence at the end of every semester in compliance with the rules and regulations described above.

11. Assignments and Test Schedule

For assignments & quizzes unit will be credit hour, student will be responsible to submit the assignments & quizzes as per mentioned criteria

S#	Description	Credit hour
1	1st assignment	11
2	1st assignment submission to teacher	16
3	2nd assignment	21
4	1st Quiz	25
5	2nd assignment submission to teacher	26
6	3rd assignment	31
7	3rd assignment submission to teacher	36
8	4th assignment	41
9	2nd Quiz	45
10	4th assignment submission to teacher	46

All the assignments should be hand written and in following format:

1. Title page
2. Acronym & Abbreviations
3. Table of Content
4. Assignment Matter Presentation
    a. Introduction
    b. Body
    c. Conclusion
5. Bibliography
6. Teacher`s Remarks

Suggestions, Questions, Problems and Falling Behind

If you have any problems or feel like you are falling behind, please contact course teacher. It is your responsibility to recognize problems as early as possible, so we can work together to keep you progressing. Feel free to email teacher or visit during office hours if your comment is more private.

We welcome suggestions and questions. We encourage you to post these in the AIU "Questions" and "Feedback" forums, so we can all share in the discussion.

Some highlights are presented to emphasize importance

Absolute adherence to the code of conduct is demanded of the instructor, teaching fellow, and students. This means that no matter the circumstance any misconduct will be reported to AIU University.

While students are encouraged to discuss course materials, no collaboration is allowed on homework. Specifically, you may discuss assignments and projects verbally, but must write up alone. In addition, any discussion should be documented. An example on the assignment would be "Thanks to Javed for giving me a hint how the computer works." Another important example is citing a source; this could be "This information was adapted from www.aiu.edu.pk"

If any student does not understand these terms or any outlined in The Academic Code of Conduct, it is his/her responsibility to talk to the instructor or teaching fellow.

But What If I Cannot Submit Homework or Complete my Midterm or Final?

What if…? It's simply too bad. Would your teacher accept such an excuse?

Do NOT wait till the last minute to do your assignments or take your exam. As all computing professionals know, online systems rarely are 100% reliable and unexpected events can occur.

You must do your assignments and exams early enough to allow for unforeseen problems with coding, team management issues and online submission. AIU being down is not a valid excuse. Plan to submit your work at least one day before it is due.

Academic Honesty, Integrity and Cheating

All of your and your team's work must be original & Assignments should submit in APA referencing format.

Cheating Hurts

- Your integrity and reputation
- Your knowledge and skill set, when you don't learn what you need for this and future classes Employers, when you haven't deeply learned what you should have
- Your teammates, who cannot trust you to participate effectively, or in general
- Your classmates, who feel terribly frustrated that you are unfairly taking advantage, which negates much of their hard efforts
- AIU reputation with employers, current students, potential new students, and you
- Your instructor's trust in you, and opinion of you

AIU students are expected to follow published guidelines on academic honesty and integrity. You must acquaint yourself with these policies before submitting any assignments.

Dress Code

	For Boys	**For Girls**
Morning:	Blue Pants & White Shirts /White Kameez Shalwar with Westcote.	Blue Gown/ Dupatta (Navy Blue Coat /Sweaters)
Evening:	Decent Wear	Decent Wear

Student ID Card

Students must wear ID card in university premises.

Examination Rules

Marks Distribution

S/No	Item	No of Q&A	Pondered
1	Quizzes	2	2 x 2 = 4%
2	Assignment/Presentation	4	4 x 4 = 16%
3	Attendance	-	10%
4	Mid Term	-	30%
5	Final Term	-	40%
	Total		**100%**

Mid Term Examination

- It is an objective and subjective based examination which is usually conducted in the third month of the semester.
- It can be conducted in IT Lab (Computer Based) or on Code Sheets or as per the directions of examination.
- Total number of MCQs are 15 or 30.

Final Term Examination

- It is subjective based Examination which is conducted at the end of semester.
- It is conducted in examination hall with proper roll number slips.
- Question Paper will be of 40 Marks (Maximum) and 2 Hours duration.
- Usually, Six Questions are given to the students, each question comprises 3 parts i-e part “a” of 4 marks, part “b” of 4 marks & part “c” of 2 marks, out of which Four Answers are required. 10X4 =40.

Midterm and Final Exam – no makeups!

There will be no “make up” exam for either the midterm or final, so you must turn up to class for these. Do not arrange to leave town before checking the final exam schedule.

Finance Rules

1. It’s mandatory for students to get clearance (Predesigned clearance certificate is available in admin office) from academic, student affair & Finance department 15 days prior to examination.

2. Our prescribed standards strictly deemed mandatory for eligibility of degree conferred on successful students upon the recommendations of corresponding faculty and our governing body are:
    a. Average GPA, ought to be equivalent to or greater than 2.5.
    b. If pondered to be necessary; going through our re-examination procedures before final semester, students are entitled to improve the percentage of marks obtained in a particular subject.
    c. The entitlement mentioned herein is subject to the submittal of the corresponding fee as described by the following table in detail.

Failure to do so shall end up with repeating the whole semester.

Refund Policy: As per university policy and HEC guidelines.

Library info:

1. AES Central Library:

Alhamd Islamic University's main library—referred to as the AES Central Library—serves as the central hub for academic and research support. It caters to students, faculty, researchers, and university staff by providing access to study materials and scholarly references.

2. Digital & Online Resources:

Beyond the physical collection, the university also offers an online library with substantial reference and reading materials. This enables remote access to learning resources, fostering academic growth and research activity.

Important phone numbers:

Transport
Mr. Sohail Ahmed
Contact No: 0333-7116042

Emergency/ Student Affair
Mr. Mustafa Shahwani
Contact No: 0333-1535317

Help Desk
Ms. Humaira
Contact No: 0333-2055492

1. Introduction of the Department:

Introduction Alhamd Islamic University (AIU) was established in the year 1995 with the vision of Promoting Education in all the Sectors of Education. AIU is a private sector University in Baluchistan chartered by the Government of Baluchistan under the Act II of 2005, recognized by Higher Education Commission (HEC). Providing skilled Professionals in the field of Islam, Science, Arts, Engineering and Technology. The Department of Engineering Technology was established in 2016 to meet the demand for well-qualified Engineering technologists. The Department offers a 4-years degree program in Civil Engineering Technology. The main emphasis of this program is to provide basic knowledge of technology, mathematics and other sciences to the students and to utilize them in solving problems of Structures, Hydraulics, Highways and Environmental engineering and know - about to operation & maintenance of Civil Engineering projects. It develops the basic knowledge of on-job training to enable them to work independently on the projects. Students are trained as technologists to face all challenges of the industry. The students are provided basic techniques, skills and use of modern tools to perform as technologists at the projects.

Our Civil Engineering Technology degree is not just about teaching– it is designed to prepare you for a rewarding and challenging career in the areas and technologies of your choice, whether that be commercially focused or research-based.

1.1 Department Vision and Mission:

1.1.2 Vision:

To produce competent and highly skilled professionals capable of utilizing their intellect and knowledge to meet contemporary construction industry challenges.

1.1.3 Mission:

The program will produce professional technologists having the ability to handle the challenges of their field with their sound academic understanding as well as aware of Islamic aspects of professional ethics to establish this change.

Course Outlines

First Semester Schemes:

Sr.No	Semester	Course Title	Credit Hour	Credit Hour	
				CrHr (Th)	CrHr (Lab)
1.	1	Understanding of Quran I	0+1	0	1
2.		Applied Mathematics I	3+0	3	0
3.		Functional English I	3+0	3	0
4.		Applied Physics	2+1	2	1
5.		Surveying	1+2	1	2
6.		Materials & Methods of Construction	2+1	2	1

Course Content

Applied Mathematics I

CODE & TITLE (NSC-111) Applied Mathematics-I	CREDIT & CONTACT HOURS (3+0) 45 Theory + 0 Lab	KNOWLEDGE AREA/ DOMAIN Natural Science	
After completion of this course, students will be able to:		Bloom's Taxonomy Level	PLO

CLO-1	**Learn** and perform derivatives and anti-derivatives with and without applications.	C-3	PLO-1
CLO-2	**Learn** and perform with numerical techniques in solving equations and interpolation.	C-3	PLO-2

Course Outline for Theory

Derivative
Techniques, The chain rules, Implicit differentiation,
Application of Derivatives
Increasing and decreasing, Relative extrema and optimization, Mean value theorem derivatives, Inverse function
Integration
Anti-derivatives and integrals, the substitution rules, Techniques of Integration
Application of Integration
Solution of Linear and nonlinear equations Interpolations

Recommended Books

1. Calculus, James Stewart, Daniel K. Clegg, Saleem Watson, 9th Edition
2. Advanced engineering mathematics, E. Kreyszig, 9th edition, Wiley, 2006.\
3. Numerical methods, A. Greenbaum & T. P. Chartier, Princeton University Press, 2012

Materials and Methods of Construction

CODE & TITLE (CET-111) **Materials and Methods of Construction**		**CREDIT & CONTACT HOURS** (2+1) **32 Theory + 48 Lab**	**KNOWLEDGE AREA/ DOMAIN** **Civil Engineering Technology Foundation**
After completion of this course, students will be able to:		**Bloom's Taxonomy Level**	**PLO**
CLO-1	**Explain** various properties of construction material.	C-2	PLO-1
CLO-2	**Carryout** suitable selection of materials according to various requirements.	C-3	PLO-2

Course Outline for Theory

Materials of Construction: Constituents, types, properties of cement; preparation, setting, hardening and application of lime, comparison of lime and cement based on characteristics and cost. Properties, preparationand application of mortars. Components, properties, types, manufacturing of concrete; properties of water used for concrete mix. Physical mechanical properties and application of steel, physical, mechanical propertiesof aluminum. Manufacturing, standard tests for brick/blocks, ceramic stones properties, qualities, use in building construction, extraction and processing of stones. Aggregates (coarse and fine) properties, standard tests (abrasion tests, crushing strength, gradation, weathering etc.). Types, uses, seasoning and preservation of wood or timber for construction. Types, composition, preparation, and application of paints, varnishes, fillers in construction; composition, varieties, properties and uses of glass, plastics, laminates and adhesives inconstructions. Properties and uses of asphalt, bitumen, rubber, asbestos and its products, plastic pipes, reinforced plastics.

Methods of Construction: Bonds in brick masonry and their formation in building construction, corbel, cornice,string course, parapets and slip joints. Masonry block. Stone masonry, Uses of stone in civil engineering. Use of Gabion walls. Scaffolding work design and its importance in construction work. R. B. beams, columns, lintelsand slab construction in buildings. ASTM Standards and testing of bricks. Hand tools for construction. Foundation for walls and piers. Load bearing walls in brick and masonry construction, composite walls cavity construction, concrete framed structures panel walls, and external finishes. Reinforced concrete, materials in roof and floor construction, and floor finishes. Internal walls and partitions, surface finishes to internal walls and ceiling, doors and windows, staircases, damp proofing of walls and ceiling. Fire resistant construction. Tunnel and Cofferdams construction. Formwork for slabs, beams, columns & walls, etc. and its design.
Formwork for shells. Standards, inspection & quality control of materials.

Materials and Methods of Construction Lab

CODE & TITLE (CET-111L) **Materials and Methods of Construction Lab**		**CREDIT & CONTACT HOURS** (0+1) **0 Theory + 48 Lab**	**KNOWLEDGE AREA/ DOMAIN** **Civil Engineering Technology Foundation**	
After completion of this course, students will be able to:			**Bloom's Taxonomy Level**	**PLO**
CLO-1	**Perform** experiments and carry out calculations to determine setting times of cement, gradation curves, strength and specific gravities of various materials.		P-2	PLO-1
CLO-2	**Contribute** effectively as an individual or in group forperforming different laboratory experiment.		A-2	PLO-9
CLO-3	**Estimate** the physical constraints using experimental results.		C-3	PLO-2
Lab Outline				

Practical's 1. Standard consistency test of cement. 2. Fineness of Cement. 3. Standard sizes of brick and blocks. 4. Determination of water absorption of bricks and stone. 5. Determination of efflorescence of brick. 6. Determination of compressive strength of brick/block. 7. Determination of moisture content of wood. 8. Determination of specific gravity of wood. 9. Fineness modulus of various sands. 10. Abrasion test of coarse aggregate. 11. Crushing strength of coarse aggregates. 12. Field visit to observe formwork, scaffolding and reinforcement erection of a building construction project. 13. Field visit/video observation to observe concreting of a building.
Recommended Books
1. Construction Technology, Prentice Hall; 4th edition (December 30, 2005) or latest edition. 2. Fundamentals of Building Construction: Materials and Methods 6th Edition Wiley; 6th edition (October 14, 2013) or latest edition. 3. Construction Methods and Management by Stephens W. Nunnally, 8th Edition Pearson (2011) or latest edition 4. Materials of. Construction by R. C. Smith and C. K. Andres, ISBN: . 0070585040, McGraw Hill. January 1987 (Latest Edition).

Applied Physics

CODE & TITLE (NSC-112) **Applied Physics**	**CREDIT & CONTACT HOURS** (2+1) **32 Theory + 48 Lab**	**KNOWLEDGE AREA/ DOMAIN** **Natural Sciences**	
After completion of this course, students will be able to:		**Bloom's Taxonomy Level**	**PLO**
CLO-1	**Comprehend** the fundamental laws of physics relevant to the engineering science.	C-2	PLO-1
CLO-2	**Apply** knowledge of basic physical laws to solve variousproblems of applied nature.	C-3	PLO-2
Course Outline for Theory			

Units, Physical Quantities, and Vectors: Standards and Units, Unit Consistency and Conversions, Uncertainty and Significant Figures, Vectors and Vector Addition, Products of Vector.

Motion, Force and its effects: Laws of motion and equation. Freely Falling Bodies, Angular motion, Relationship between angular and linear motion, Tension, Momentum, Composition and resolution of force, Law of sine, Law of parallelogram, moment and couple.

Equilibrium: Equilibrium, its types and conditions. Center of gravity, center of mass and centroid, Moment, Moment of Inertia of the body, radius of gyration and analysis of simple geometry to check the stability of the object.

Work power and energy: Work and its units, examples of zero work, positive work and negative work, Friction and its modern concept, types, laws of limiting friction and its Engineering Applications. Work done in moving an object on horizontal and inclined plane for rough and plane surfaces with its applications. Energy and its types and transformation of energy. Power and its units, Power and its numerical problems.

Properties of materials: Stress and strain, modulus of elasticity, Hooke' s law and its applications, stress-strain diagram, pressure, surface tension, viscosity, elasticity, plasticity, brittle and ductile materials.

Applied Physics (Lab)

CODE & TITLE (NSC-112L) **Applied Physics (Lab)**	**CREDIT & CONTACT HOURS** (0+1) **0 Theory + 48 Lab**	**KNOWLEDGE AREA/ DOMAIN** **Natural Sciences**	
After completion of this course, students will be able to:		**Bloom's Taxonomy Level**	**PLO**
CLO-1	**Perform** experiments related force systems and Equilibrium.	P-2	PLO-9
CLO-2	**Interpret** results using experimental data.	C-2	PLO-2
CLO-3	**Justify** the applications of experiments related to force systems and Equilibrium.	A-3	PLO-10
Lab Outline			

1. Find the radius, area and volume of different geometrical shape using Vernier calliper and screw gauge and tape.
2. Determine the value of acceleration due to gravity through simple pendulum.
3. Verify the parallelogram law of forces.
4. Verify the law of conservation of moment through set of balls at on frictionless surface.
5. Find the moment of inertia of objects using flywheel about its axis of rotation.
6. Find the work done at the plane surface and inclined wedge.
7. Determine the effect of force at 0, 30, 45, 60 and 90 degrees with the help of rod or rope.
8. Find the center of gravity of regular and irregular objects
9. Determine the viscosity of the different materials.
10. Find the force constant of spring using hooks law.
11. Verify the stress and strain relation of elastics materials.
12. To determine the density of different materials.

Recommended Books

1. Fundamentals of Physics, Extended - With WileyPLUS by David Halliday, Robert Resnick and Jearl Walker Hardback. ISBN13: 978-1118730232.
2. Physics for Scientists and Engineers 7th or 9th Edition by Raymond A. Serway & John W. Jewett. ISBN-13: 978-1133947271.
3. University Physics with Modern Physics by R. A. Freedman, H. D. Young, and A. L. Ford (Sears and Zeemansky). Addison-Wesley-Longman, 13th International ed. 2010.

Functional English

CODE & TITLE (HUM-112) **Functional English**		**CREDIT & CONTACT HOURS** (3+0) **48 Theory + 0 Lab**	**KNOWLEDGE AREA/ DOMAIN** **Art & Humanities**
After completion of this course, students will be able to:		**Bloom's Taxonomy Level**	**PLO**
CLO-1	**Demonstrate** correct use of varied contents including official letters, e-mails, and applications and summarize the texts using appropriate grammatical mechanisms and appropriate lexical choices.	C-3	PLO-10
CLO-2	**Apply** skimming, scanning and detailed reading and listening strategies to understand gist of the text/conversation and doing lexical item search.	C-3	PLO-2
CLO-3	**Articulating** one's point of view and arguments in real life situations.	C-4	PLO-12
Course Outline for Theory			

1. Reading: Interactive Reading, Apply the skills of surveying, skimming, scanning and detailed reading and identify topic sentence. 2. Writing: Audience related writing, composition of sentences, paragraphs, short descriptive writing, précis and letter and application; identify contextual clues with the help of cohesive devices. 3. Listening: Collect gist and important points from listening text or any other oral source viz. lecture, speech or conversation. 4. Speaking: Taking part in different real-life situations, answering questions, argue and explain one's point Of view, ask for information, turn taking techniques and presentation skills. 5. Presentation Skills: Formal Presentation Skills (3 P'S of Presentation) Public Speaking (Do's and Don'ts, Target audience, Required message, selection of medium and topic) 6. Grammar: Mechanics of English language, punctuation, conservation words, tenses and sentence structure. 7. Vocabulary: Matching vocabulary items with their corresponding definitions, identification odds items out Of a list of vocabulary items, classification of vocabulary items in lexical sets.
Recommended Books
1. Thomson A. J. and Mrtenet A. V. "A Practical English Grammar", 3rdEdn. OUP, latest edition. 2. Sarwar Zakia, "English Study Skills", A Spelt Publication Karachi 1991. 3. S. Jannifer, "Grammar in Practice 1 and 2", OUP, latest edition. 4. S. Michael, "Basic English Usage", OUP, latest edition. 5. S. Michael, "Practical English Usage", OUP, latest edition.

Surveying

CODE & TITLE (CET-112) **Surveying**		**CREDIT & CONTACT HOURS** (1+2) **32 Theory + 96 Lab**	**KNOWLEDGE AREA/ DOMAIN** **Civil Engineering Technology Foundation**	
After completion of this course, students will be able to:			**Bloom's Taxonomy Level**	**PLO**
CLO-1	**Explain** different survey techniques for measurements for horizontal and vertical plane.		C-2	PLO-1
CLO-2	**Solve** problems using surveying techniques.		C-3	PLO-2
Course Outline for Theory				

Introduction

Introduction to Surveying and types, Classification of surveys, Surveying Techniques, Measurements, and theirUnits.

Computation of Areas and Volume

Computation of areas by using mid-ordinate rule, average ordinate rule, trapezoidal and Simpson rule,Computation of areas by means of plan meter, Computation of areas by co-ordinates.

Theodolite Traversing

Adjustment of transit theodolite, traversing with theodolite, Traverse computations, Closing error and itsadjustment, Computation of Omitted measurements.

Tachometric Surveying

System of tachometry, Principles and field procedures of tachometry, Use of tachometry for traversing.

Trigonometric Levelling

Determination of Reduced levels of elevated objects when the base is accessible and inaccessible.

Highway Curves

Introduction to curves, Types of curves, Simple circular curves, Compound curves, reverse curves, transitioncurves, vertical curves, Computation and setting out of curves by different methods.

Hydrographic Surveying

Hydrographic Surveying and its applications, Sounding and instruments used in soundings, Shoreline survey andlocation of soundings.

Surveying (Lab)

CODE & TITLE (CET-112L) **Surveying (Lab)**	**CREDIT & CONTACT HOURS** (0+2) **0 Theory + 96 Lab**	**KNOWLEDGE AREA/ DOMAIN** **Civil Engineering Technology Foundation**	
After completion of this course, students will be able to:		**Bloom's Taxonomy Level**	**PLO**
CLO-1	**Operate** various surveying equipment for measurements with required accuracy.	P-3	PLO-5
CLO-2	**Participate willingly** in-group activities during the fieldworkof survey experiments.	A-2	PLO-9
CLO-3	**Describe** surveying techniques related to Civil Engineering technology.	C-2	PLO-1
Lab Outline			

Practical's:

1. To range out a survey line using ranging rods (Direct & Indirect ranging)
2. To measure the horizontal distance between two terminal stations by different methods. (Pacing, Measuring Tape and Chain).
3. To determine the horizontal distance between the two terminal stations on a sloping ground by (i). Stepping Method. (ii). Using Abney Level
4. To set out baseline and perpendicular line/offsets in the field using optical square and 3-4-5 method.
5. Layout of rooms of a house by offset method using Pythagoras Theorem.
6. To measure the magnetic bearing of a line with the help of Prismatic Compass.
7. Introduction to Auto level and its temporary adjustment and determine staff reading on natural ground by using Auto Level.
8. To draw profile (L-section) and cross-sectional levelling of an existing road by obtaining data using Auto level. (In two Sessions)
9. Introduction to Digital Theodolite, its temporary adjustment and determine horizontal angle, vertical angle and bearing.
10. To determine latitude and departure of lines and calculate the area of closed traversed by coordinate's method.
11. To determine the Horizontal distances and Vertical distances by Tachometric Surveying.
12. To determine the independent coordinates of an existing building by Theodolite Traversing and plot its coordinates by using AutoCAD Software. (In two Sessions)
13. To measure the Heights of buildings and determine R.L at top of elevated object by Trigonometric Levelling.
14. To perform Contouring activity using Total Station
15. To perform Stake-out activity using Total Station

List of Clubs & Societies

1. Literary & Dramatic Society
2. Sports Society (ALHAMD Sports Club)
3. Debating Society
4. Environmental Society
5. Entrepreneurial Society
6. Media Society
7. Noor o Hikmat Society

Any student can apply and participate in the society.

Scholarships and Financial Aid:

1. Merit-Based Scholarships
2. BEEF Scholarships
3. Need-Based Scholarships

4. Toper Scholarship
5. Scholarship for Madaris Students (Only in Islamic Studies)
6. Scotland Pakistan Scholarships (Only for Females)

IT Services & Student Portal Guide

Student Portal:

http://ms.alhamd.pk/xamcell/admin/std.aspx

QR Code:

Important: Personal ID (PID) is the code to login.

Website:

www.aiu..edu.pk

QR Code:

Video message from the President:

Weblink:

Complaint Cell or Grievance Redressal Mechanism

What is a Complaint?

A complaint is a formal expression of dissatisfaction by a student regarding:

1. Academic matters (exams, grading, evaluation, course conduct).
2. Administrative issues (fees, services, facilities, records).
3. Behavior or misconduct by faculty, staff, or fellow students.
4. Violation of university rules, regulations, or policies.

A complaint should be genuine, specific, and supported by facts or evidence.

Description:

The Student Grievance Redressal system provides a fair, transparent, and timely process for addressing concerns raised by currently enrolled students. The objective is to ensure that every student's voice is heard, their issues are resolved in a

structured manner, and their rights are safeguarded in accordance with university policies and regulations.

This mechanism strengthens trust between students and the institution while promoting an environment of academic integrity, equality, and accountability.

Web link:

https://aiu.edu.pk/student-complaints/

Complaint Process: