

## Mission

“Groom Thinking Aeronautical Engineers”

## Core Values

“Cognition, Excellence, Commitment”

College of Aeronautical Engineering (CAE) has a vision to be a center of excellence for engineering education and research in Aeronautical Engineering. Professional Continuing Education department regularly conducts short courses with collaboration of Aerospace department.

## Short Courses (Duration : 03 days)

- Jet Engine Performance and Design Course
- Structural Health Monitoring
- Introduction to Dynamics and Automatic Control of Flight
- Advance Design Methods
- Fatigue, Fracture and Material Failure Analysis
- Introduction to CAD/CAM
- System Engineering Principles
- Fundamentals of Space Technology
- Space Situational Awareness
- Rocket Propulsion for Ballistic Missiles
- Numerical Optimization Techniques for Engineers



## Department of Aerospace Engineering

College of Aeronautical Engineering,  
PAF Academy Asghar Khan, Risalpur, Pakistan

Contact: +92-923-631391-7 Ext 7655

Web Site: <http://www.nust.edu.pk>

Email: [aecord@cae.nust.edu.pk](mailto:aecord@cae.nust.edu.pk)

## Department of Aerospace Engineering

## College of Aeronautical Engineering

National University of Sciences  
and Technology (NUST)





# COLLEGE OF AERONAUTICAL ENGINEERING

## Why Join Us?

- NUST ranks 51st in Top 100 universities under 50 years Category, the only Pakistani university to find a place in the QS top 500 ranking
- CAE is the Pioneer of Aerospace Engineering in Pakistan
- ISO 9001: 2015 certified
- An illustrious history of producing top quality aeronautical engineers for 5 decades
- Highly qualified faculty, with a rich field and research experience
- Expertise in diverse research areas
- Excellent lab facilities
- Strong industry linkages
- Opportunity to work on aircraft design
- Availability of hostels for male and female students
- Bright career opportunities

## Admissions Open:

- March-April every year (BE, MS & PhD)
- September-October every year (BE & PhD)

## Commencement of Classes:

- April (BE & PhD only)
- September (BE, MS & PhD)

## Main Research Areas (BE, MS & PhD)

Aircraft Aerodynamics Design, Methods & Analysis of Structures, Computational Fluid Dynamics, Compressible & Incompressible Aerodynamics, FEA Design & Analysis, Solid Mechanics, Advanced Composites, Aerospace Materials, Fluid-Structure Interactions, Flight Stability and Controls, Aircraft Propulsion, Turbo Machinery, Aero-acoustics, Heat Transfer, Advanced Vibrations

## Major Laboratories

- Structures Lab
- Materials Science Lab
- Fiber Reinforced Composites Lab
- Modeling and Simulation Lab
- Numerical Analysis Lab
- Propulsion Lab
- Heat Transfer Lab
- Thermodynamics Lab
- Aerospace Vehicle Design Lab
- Flow Visualization Lab
- Fluid Mechanics Lab
- Aerodynamics Lab
- Subsonic Wind Tunnel Lab
- Supersonic Wind Tunnel Lab

## Eligibility Criteria for BE

- Minimum 12 years of education with Physics, Chemistry and Mathematics in Secondary and Higher Secondary School (last four years of education)
- Minimum 60% marks in HSSC and SSC
- Equivalence Certificate from IBCC in case of 'O', 'A' Level or equivalent certificates
- SAT subject test (Physics, Chemistry and Mathematics – Level II) with score of 550 or above in each subject and qualified in last two years (Foreign students only)
- Overall IELTS score of 5.5 or above, obtained during last two years (Foreign students only)

## BE Program Overview

- Typical Duration : 4 years
- Coursework : 134 credit hrs

Please visit [www.nust.edu.pk](http://www.nust.edu.pk) for latest admissions requirements for BE, MS and PhD programs.

## Eligibility Criteria for MS

- Minimum 16 years of education with 04 years of study in Aerospace / Mechanical / Mechatronics / Industrial / Manufacturing / Electrical Engineering after HSSC / FSC / 12 grade or equivalent
- Minimum 2.0 out of 4 CGPA or 55% marks in terminal degree
- BE degree should be internationally recognized for admission in MS program
- Minimum score of 50 in GAT (general), (taken within last two years computed from start of course) by NTS Pakistan, or following valid GRE scores at start of course conducted by ETS USA,

Quantitative	151/170
Verbal	146/170
Analytical Writing	3.5/6.0

## MS Program Overview

- Typical Duration : 2 years
- Coursework : 24 credit hrs
- Research Work : 06 credit hrs
- Opportunity to carry out research in aerospace technologies

## Eligibility Criteria for PhD

- Internationally recognized MS / M Phil / Equivalent degree obtained after 18 years of education in Aerospace / Mechanical / Electrical / Avionics / Civil / Materials engineering
- MS degree should be with minimum of 30 credit hrs out of which 6 credit hrs of thesis/research
- Minimum 3.0 out of 4 CGPA or 60% marks in terminal degree
- Valid GRE scores or GAT (Mechanical) by NTS with minimum 60% marks. GRE requirement is as follows;

Quantitative	151/170
Verbal	146/170
Analytical Writing	3.5/6.0

## PhD Program Overview

- Typical Duration : 4 years
- 06 Courses in 1st year : 18 credit hrs
- Research work : 2nd year onwards