



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal - 500 043, Hyderabad, Telangana

## Attainment of Program Outcomes (POs) of 2023 - 2025 batch (IARE -MT23)

Course Code	Course	Program Outcomes (POs)					
		PO1	PO2	PO3	PO4	PO5	PO6
BAED01	Advanced Vehicle Aerodynamics	2.50		2.50			
BAED02	Jet and Rocket Propulsion	2.30		2.10			
BAED05	CFD for Aerospace Applications	2.50		2.50			
BAED07	Unmanned Aerial Vehicles	2.60		2.60	2.60	2.90	
BHSD01	Research Methodology & IPR	2.60	2.30		2.70	2.60	2.30
BAED11	Advanced Aerodynamics Laboratory	1.20		1.20			
BAED12	Computational Aerospace Engineering Laboratory			3.00	3.00	3.00	
BAED13	Flight Dynamics and Control	2.40		2.30			
BAED14	Aircraft Structural Mechanics	0.90	0.50	0.90	1.10		
BAED16	Rockets and Missiles	1.40		1.40	1.30	1.20	
BAED22	Advanced Finite Element Methods			2.30	2.30	2.60	
BAED23	Flight Simulation and Controls Laboratory	3.00	3.00			3.00	3.00
BAED24	Advanced Structural Analysis Laboratory	2.40	2.40	2.40	2.40	2.40	2.40
BAED25	Mini Project with Seminar	2.60	2.60	2.60	2.60	2.60	2.60
BAED27	Flight Simulation	2.10	2.00	2.10	2.20	2.00	
BCCD31	Energy from Waste	1.20	1.90	2.10		1.20	
BAED34	Dissertation Work Review - II	1.80	1.80	1.80	1.80	1.80	1.80
BAED35	Dissertation Work Review - III	3.00	3.00	3.00	3.00	3.00	3.00
BAED36	Dissertation Viva-Voce	3.00	3.00	3.00	3.00	3.00	3.00
<b>Direct Attainment Value</b>		<b>2.2</b>	<b>2.3</b>	<b>2.2</b>	<b>2.3</b>	<b>2.4</b>	<b>2.6</b>

## Overall Attainment

S. No	Assessment Components (Direct + Indirect)	Program Specific Outcomes (PSOs)					
		PO1	PO2	PO3	PO4	PO5	PO6
1	Direct Assessment (CIA + SEE + Course End Survey) (a)	2.2	2.3	2.2	2.3	2.4	2.6
2	Program Exit Survey (b)	2.4	2.2	2.4	2.5	2.3	2.2
3	Alumni Survey (c)	2.3	2.3	2.4	2.5	2.3	2.2
4	Employer Survey (d)	1.9	2.1	2.1	1.9	1.8	2.1
<b>Final attainment = a*0.8 + b*0.1 + c*0.05 + d*0.05</b>		<b>2.2</b>	<b>2.3</b>	<b>2.2</b>	<b>2.3</b>	<b>2.4</b>	<b>2.5</b>

### Action taken to improve the attainment of POs :

POs	Target Level	Attainment Level	Observation
<b>PO1: Engineering Knowledge:</b> Independently carry out research /investigation and development work to solve practical problems.			
PO1	1.7	2.2	<b>Target achieved. Following courses were identified which didn't meet the attainment target BAED11, BAED14, BAED16, BCCD31</b>
<b>Action:</b>			
<ol style="list-style-type: none"> <li>Students are encouraged to join NPTEL courses for developing an enhance problem-solving abilities, and gain deeper insights into technical subjects through quality online education.</li> <li>Guest lectures and expert talk to be conducted to enrich the industry-oriented engineering knowledge.</li> </ol>			
<b>PO2: Problem analysis:</b> Write and present a substantial technical report / document.			
PO2	1.3	2.3	<b>Target achieved. Following courses were identified which didn't meet the attainment target BAED14</b>
<b>Action:</b>			
<ol style="list-style-type: none"> <li>Expert talk and Academic workshops will be conducted to improve the knowledge on experiments and analysis of results.</li> <li>Students for careers in aerospace industries, defense organizations, and research institutes specializing in flight control systems and guidance technologies.</li> <li>Students are encouraged to participate in workshops and seminars for developing an analytical mind which can work towards problem solving.</li> </ol>			

<b>PO3: Design/development of solutions:</b> Demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.			
<b>PO3</b>	1.5	2.2	<b>Target achieved. Following courses were identified which didn't meet the attainment target</b> BAED11, BAED14, BAED16
<b>Action:</b> 1. Dedicated workshops, hands-on simulation sessions, and expert lectures are regularly organized. 2. Students are trained in the modeling, simulation, and analysis of aircraft structures, as well as the design of rockets and missiles for stability and performance improvement.			
<b>PO4: Conduct investigations of complex problems:</b> Identify, formulate, analyze and Design complex engineering problems, and design system components or processes by applying appropriate advanced principles of engineering activities and using modern tools.			
<b>PO4</b>	1.7	2.3	<b>Target Achieved. Following courses were identified which didn't meet the attainment target</b> BAED14, BAED16
<b>Action:</b> 1. Expert talk and Academic workshops will be conducted to improve the knowledge on experiments and analysis of results. 2. Introduced additional tutorial sessions focusing on numerical problems from previous university examinations.			
<b>PO5: Modern tool usage:</b> Engage in life-long learning and professional development through self-study and continuing education in understanding the engineering solutions in global and management principles to manage projects in multidisciplinary environments.			
<b>PO5</b>	1.6	2.4	<b>Target not achieved. Following courses were identified which didn't meet the attainment target</b> BAED16, BCCD31
<b>Action:</b> 1. Practical understanding of Rocket and Missile Technology with specialized lectures, workshops, and simulation-based projects are regularly conducted. 2. Students apply theoretical knowledge to solve real-world engineering problems, develop prototypes, and present their findings in a seminar format. 3. Students in the area of Re-entry Vehicles, focused workshops, seminars, and project-based learning sessions are regularly organized			
<b>PO6: The Engineer and Society:</b> Function effectively as a member or leader in diverse teams to carry out development work, produce solutions that meet the specified needs with frontier technologies and communicate effectively on complex engineering activities.			
<b>PO6</b>	1.6	2.5	<b>Target Achieved.</b>



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