



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)

L. B. Reddy Nagar, Mylavaram – 521 230, N.T.R. District, Andhra Pradesh, India
Affiliated to JNTUK, Kakinada & Approved by AICTE New Delhi
Accredited by NBA under Tier – I, Accredited by NAAC with 'A' grade,
An ISO 21001:2018, 500001:2018, 14001:2015 Certified Institution

DEPARTMENT OF AEROSPACE ENGINEERING

Estd.: 1998

Website: <https://www.lbrce.ac.in/ase/index.php> Email: hodaero@lbrce.ac.in Phone: 08659-222933 Ext: 624/623

Analysis of Course outcomes and ATR

Faculty Name	:	Nazumuddin Shaik	Designation	:	Sr. Assistant Professor
Course Name	:	Aircraft Structures-II	Academic Year	:	2024-25
Course Code	:	20AE10	Semester	:	V
Program & Admitted Year	:	B.Tech -ASE & 2022	Section	:	--

COURSE OUTCOMES:

After the completion of the course, the student should be able to,

CO1:	Assess the behaviour of beam structures subjected to different loading conditions (Apply-L3)
CO2:	Estimate the shear flow distribution and location of shear centre for open sections (Apply-L3)
CO3:	Determine the shear flow distribution and location of shear centre in closed section beams (Apply-L3)
CO4:	Formulate the relations for thin plates subjected to bending and buckling loads (Apply-L3)
CO5:	Analyze the behaviour of bending and shear flow over aircraft wing and fuselage cross-sections (Analyze-L4)

Attainment of COs:

Assessment Tool ↓ / COs →	CO1	CO2	CO3	CO4	CO5
MID Attainment (%)	67.41	54.35	68.12	54.57	69.55
Assignment Attainment (%)	100.00	100.00	100.00	100.00	100.00
Quiz Attainment (%)	13.56	13.56	16.95	20.34	20.34
SEE Attainment (%)	64.96	78.63	80.73	73.42	88.77
COs Attainment (%)	62.20	67.20	72.20	64.80	77.70
CO Target(%)	65.00	65.00	65.00	65.00	60.00

Observation:

Upon analyzing the Course Outcomes (COs) attainment, it was found that CO1 and CO4 did not achieve their set targets.

COs	Attained (%)	Target (%)	Status
CO1	62.20	65.00	Not Attained
CO2	67.20	65.00	Attained
CO3	72.20	65.00	Attained
CO4	64.80	65.00	Not Attained
CO5	77.70	60.00	Attained

Actions Taken for CO1 and CO4:

1. Focused Remedial Classes (CO1 and CO4):

- Conducted additional remedial classes to strengthen concepts related to beam behavior under various loading conditions (CO1) and the formulation of bending and buckling relationships for thin plates (CO4).

2. Concept Reinforcement through Tutorials:

- Introduced additional tutorial sessions with problem-solving exercises specifically aimed at improving understanding of shear force distribution and buckling phenomena.

3. Improved Assessment Techniques:

- Adjusted quiz and mid-term questions to better align with the learning outcomes and emphasize analytical problem-solving.

4. Incorporation of Real-world Problems:

- Presented students with practical applications and real-life scenarios involving beam structures and thin plates to help improve conceptual clarity and applied knowledge.

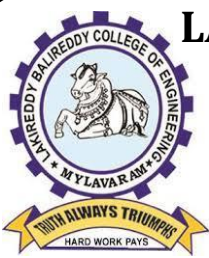
5. Targeted Mentoring:

- Provided one-on-one mentoring sessions for students who underperformed in these specific COs to ensure their doubts are cleared and understanding is enhanced.

Expected Outcome:

The above actions are expected to bridge the learning gaps and improve the attainment of CO1 and CO4 to meet or exceed the target in the next assessment cycle.

Course Instructor



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)

L. B. Reddy Nagar, Mylavaram – 521 230, N.T.R. District, Andhra Pradesh, India
Affiliated to JNTUK, Kakinada & Approved by AICTE New Delhi
Accredited by NBA under Tier – I, Accredited by NAAC with 'A' grade,
An ISO 21001:2018, 500001:2018, 14001:2015 Certified Institution

DEPARTMENT OF AEROSPACE ENGINEERING

Estd.: 1998

Website: <https://www.lbrce.ac.in/ase/index.php> Email: hodaero@lbrce.ac.in Phone: 08659-222933 Ext: 624/623

Attainment of Course outcomes, Program Outcomes and Program Specific Outcomes

Faculty Name	:	Nazumuddin Shaik	Designation	:	Sr. Assistant Professor
Course Name	:	Aircraft Structures Lab	Academic Year	:	2024-25
Course Code	:	20AE10	Semester	:	V
Program & Admitted Year	:	B. Tech -ASE & 2022	Section	:	--

COURSE OUTCOMES:

After the completion of the course, the student should be able to,

CO1:	Analyze beam structures subjected to different loading conditions (Analyze-L4)
CO2:	Analyze deflection based on different theories (Analyze-L4)
CO3:	Analyze the performance of cams, governors and gyroscope (Analyze-L4)

Attainment of COs:

Assessment Tool ↓ /COs →	CO1	CO2	CO3
CIE Attainment(%)	85.3	97.32	92.56
SEE Attainment(%)	68.26	68.34	76.67
Final CO Attainment(%)	75	80	83
Target(%)	70	70	70

Articulation of COs with POs & PSOs and Attainment of POs and PSOs:

POs →		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
COs Attainment %	CO1	76	3	3	2	3	-	-	-	-	-	-	3	3	3
	CO2	80	2	3	2	3	-	-	-	-	-	-	3	3	3
	CO3	83	2	3	2	3	-	-	-	-	-	-	3	3	3
Attained (%)		79	80	80	80	-	-	-	-	-	-	-	80	80	80

Signature			
Title	Course Instructor	Module Coordinator	HoD
Name	Mr. Nazumuddin Shaik	Mr. Nazumuddin Shaik	Dr. P. Lovaraju Professor & HOD