

1.1.1– The Institution ensures effective Curriculum delivery through a well-planned and documented process

Curricular Planning and Implementation

The institute strictly adheres to the university academic schedule. The university schedule and Institute academic calendar is attached. As to assess the performance of the faculty members, Class Committee is conducted and the sample is attached. The Lesson plan which is the initial planning of curriculum is done for all the courses. As a part of curriculum in order to deliver the course in an efficient way, course files are prepared before of the commencement of every semester and the proof is attached. The question paper for all the courses is set with proper course outcomes and blooms level mapping. A sample of question paper is also attached.

GOJAN SCHOOL OF BUSINESS & TECHNOLOGY

NAME OF THE FORMAT : Academic Calendar - ODD Semester 2018- 2019

FORMAT NO

: GSBT/OMS/OF/098

	ate	Cum Days	June -2018	Date	Cum Days	July-2018	Date	Cum Days	August-2018	Date	Cum Days	September-2018	Date	Cum Days	October-2018	Date	Cum Days	November-2018
т										1	47							
UN				1						2		Janmashtami						
ION				2						3	48		1	71				
UE				3	4					4	49		2		Gandhi Jayanthi			
/ED				4	5		1	25	Cycle Test I Begins	5	50		3	72				
HU				5	6		2	26		6	51		4	73		1		
'RI J	1			6	7		3	27		7	52		5	74		2		
AT 2	2			7	8		4	28		8	53	Cycle Test 2 Begins	6	75	CIVIL Workshop	3		
UN 2	3			8			5		-	9			7			4		
ION 4	4			9			6			10	54		8	76		5		2
UE :	5			10	9		7	29		11	55		9	77	Syllabus Completion For 2,3&4 yr, PG(III Sem)	6		Deepavali
ED (6			11	10		8	30	Cycle Test I Ends	12	56		10	78		7		
HU 7	7			12	11		9	31		13		Ganesh Chaturthi	11	79		8		
RI 8	8			13	12		10	32	ECE Industrial Visit	14	57	C 1 T 12 F 1	12	80	Model Exam Begins	9		
UN 1	10			15	15		12		AERO Guest Lecture-1	15	58	<u>Cycle Test 2 Ends</u>	13	81		10		
ION 1	11			16			13			17	59	CIVIL Guest Lecture-II	15	82		12		1
TIF 1	12		2	17	14	ECE Cuast Lastura I	14	24	FFF Inductoial Visit	10	60	CITIL OUGS LICENTER	16	02		12		
	12			10	14	ECE Guest Lecture-I	14	34	EEE Industrial Visit	18	60		10	83		15		
	13			18	15		15	25	Independence Day	19	61	(CSE/IT) Workshop	17	84		14		
RI 1	15			20	10		16	35		20	62	MECH Guest Lecture-II Muharram(RH)	18		Ayudha Pooja Vijava Dashami	15		
AT 1	16			21	18	(CSE/IT) Guest Lecture- I	18	37	<u>SYMPOSIUM</u>	22	64	(CSE/IT) Industrial Visit / AERO Guest Lecture-II	20	85	Model Exam Ends	17		
UN I	17		1 2	22			19			23			21			18		
ION 1	18			23			20		×	24	65		22	86		19		
UE 1	19			24	19		21	38	(CSE/IT) Guest Lecture-II	25	66		23	87	Revision Ends for UG courses	20		
ED 2	20			25	20		22	39	Bakrid(RH)	26	67	CIVIL Industrial Visit	24		UG Tentative University Exam Concessment	21		
HU 2	21			26	21		23	40		27	68		25			22		
RI 2	22			27	22		24	41	MECH Guest Lecture-I	28	69		26			23		
AT 2	23			28	23	ECE Guest Lecture-II EEE Guest Lecture-I	25	42	ECE Workshop	29	70	AERO/MECH Workshop	27			24		
UN 2	24			29			26			30			28			25		
ON 2	25			30			27						29			26		
UE 2	26			31	24		28	43					30			27		
ED 2	27						29	44	EEE Workshop	-			31			28		
HU 2	28	1	Reopen For 2,3&4 yr,				30	45								29		
			rG(III Sem)						AERO & MECH Industrial Visit	1								
KI 2	29	-	-				31	46	/CIVIL Guest Lecture-I/ EEE Guest Lecture-II							30		
AT 3	30	3																
VID I										1								

0/6/13.

3

,8

ACADEMIC YEAR : 2018-2019(ODD) With, Eff, From : 28/6/2018(2.3&4 vr. PG(III Sem))

•

Gojan School of Business & Technology Redhills, Chennai-600 052.

GOJAN SCHOOL OF BUSINESS AND TECHNOLOGY

NAME OF THE FORMAT : ACADEMIC CALENDAR – EVEN SEMESTER FORMAT NO : GSBT/OMS/OF/098

With.Eff.From 19.12.2018 Days Date Cum. December-2018 Date Cum. January-2019 Date Cum. February - 2019 Date Cum. March-2019 Date Cum. April-2019 Date Date Date Date Date SAT SUN MON TUE New Year's Day WED THU FRI AERO Guest Lecture II SAT CIVIL Industrial visit CIVIL Guest Lecture I AERO & MECH Ugadi Workshop SUN MON EEE Workshop Commencement of semester examination TUE EEE Industrial visit CSE Workshop WED ECE Guest Lecture I ECE Guest Lecture II & ECE Workshop THU FRI CSE Guest Lecture I IT Guest Lecture II & IT Workshop SAT MECH & AERO Guest CIVIL Workshop Lecture I SUN Tamil New Year MON Bhogi AERO Industrial visit EEE Guest Lecture II TUE Pongal EEE Guest Lecture I Syllabus Completion WED Commencement of classes Thiruvalluvar Day Mahaveer Javanthi for UG(II,III,IV yr) & PG(II yr) THU Uzhavar Thirunal CSE Industrial visit Model Exam Begins FRI CIVIL Guest Lecture II Good Friday SAT MECH Guest Lecture II SUN MON TUE Christmas Cycle Test I Begins CSE Guest Lecture II WED Cycle Test II Begins Model Exam Ends THU FRI Last working day SAT Republic Day National Level Conference SUN MON Commencement of practical examination TUE Cycle Test II Ends WED Cycle Test I Ends IT Industrial visit THU ECE Industrial visit & MECH Industrial visit IT Guest Lecture I FRI SAT SUN

- dhyam Prepared by

Verified by

Approved by rincipat // 8 Goian School of Business & Technology

\$

\$

2018-2019

ACADEMIC YEAR

ANNA UNIVERSITY :: CHENNAL - 600 025 <u>NOTIFICATION</u> APRIL/MAY/JUNE 2019 EXAMINATIONS

It is informed that the April/May/June 2019 Theory, Practical and Project Viva Voce Examinations for B.E./B.Tech./B.Arch./M.Sc. (5 Yrs.)/M.B.A./M.C.A./M.E./M.Tech./M.Arch. Programmes are scheduled to be held as detailed below:-

All UG/PG Programmes - IV, VI, VIII S	Semester
Last working day	: 22.03.2019
Practical & Slot - I Project Viva Voce Examinations	: 25.03.2019 to 30.03.2019
Slot - II	: 01.04.2019 to 06.04.2019
Commencement of Theory Examinations	* : 08.04.2019
B.Arch. X Semester Project Viva-Voce Ex-	aminations
Last working day	: 22.03.2019
Last date of Thesis submission B.Arch. (X Semester) Thesis Viva-Voce Examinations	: 21.04.2019 : 23.04.2019 & 24.04.2019
Commencement of Theory Examinations	: 08.04.2019
All UG/PG Programmes – II Semester	(R 2017)
Last working day	: 22.04.2019
Practical Examinations	: 24.04.2019 to 02.05.2019
Commencement of Theory Examinations	: 06.95 2012
PG Final Semester Project Viva voce Examina	ations - R 2017
Last working day	: 22.03.2019
Last date for submission of Project Report -M.Arch.Degree programme to the college by the students	: 22.04.2019
Project Viva Voce Examination (M.Arch. Degree Programme)	: 02.05.2019 & 03.05.2019
Last date for submission of Project Report (M.E./M.Tech./ /MBA Degree Programmes) to the college by the students	: 20.05.2019
Project Viva Voce Examination (M.E./M.Tech./MBA Degree	
Programmes)	: 21.05.2019 & 22.05.2019
PG Final Semester Project Viva voce Examination	ns –R2010 & R2013
Last working day	: 22.03.2019
Regulations 2013: MCA Degree Programmes Project Viva Voce	
Examinations .	: 01.04.2019 & 02.04.2019
Regulations 2010: 5 Years M.Sc. Degree Programmes Project	
Viva Voce Examinations	2-01.04.2019 & 02.04.2019
	(. Jun astalla
(Dr. N	M. VENKATESAN)
Chennai 600.025	S COLEXAMINATIONS C
Dated :22.02.2019 N2212kg (S Chennai 600 025	tions *
12219	š/

https://mail.google.com/mail/u/0/?tah=wm#inhov?projector=1

ANNA UNIVERSITY :: CHENNAI 600 025

Internal Assessment Schedule for Non Autonomous Affiliated Institutions

Period : April/ May 2019 Examinations

For all UG/PG - Programmes Except II Semester (Full Time/Part Time)

Report No	Report Period	Test Period	Report Entry Period
I	19-12-2018 11-01-2019	No Test	18-01-2019 23-01-2019
Ĩ	12-01-2019 07-02-2019	01-02-2019 07-02-2019	07-02-2019 12-02-2019
N. S.	08-02-2019 - 01-03-2019	23-02-2019 01-03-2019	01-03-2019 06-03-2019
IV	02-03-2019 - 22-03-2019	18-03-2019 22-03-2019	22-03-2019 23-03-2019

For all UG/PG - Programmes II Semester (Full Time)

Report No	Report Period	Test Period	Report Entry Period
1	21-01-2019 12-02-2019	No Test	12-02-2019 16-02-2019
11	13-02-2019 06-03-2019	28-02-2019 06-03-2019	06-03-2019 11-03-2019
121	07-03-2019 28-03-2019	22-03-2019 28-03-2019	28-03-2019 02-04-2019
IV	29-03-2019 22-04-2019	13-04-2019 22-04-2019	22-04-2019 23-04-2019

Saturdays may be included as working days to make good the Shortages, if any.

CONTROLLER OF EXAMINATIONS



GOJAN^{SCHOOL} OF BUSINESS AND TECHNOLOGY

Approved by A.I.C.T.E. New Delhi & Affiliated to Anna University, Chennai NAAC Accredited Institution | An ISO 9001:2015 Certified Institution Recognized by UGC u/s 2(f) & 12(B) of the UGC Act 80 Feet Road, Edapalayam, Redhills, Chennai - 600 052.

B.E AERONAUTICAL ENGINEERING (R2017)

	PROGRAM OUTCOMES	KNOWLEDGE
		LEVEL
PO1	Ability to solve the engineering problems of mathematics, science and	КЗ
	engineering	
PO2	An engineering acumen in identifying, formulating, analyzing and	K4
	solving complex engineering problems.	
PO3	Developing processes, solutions to the problems which are safe	K4
	socially, culturally and environmentally.	
PO4	Ability to model, analyze and simulate operations of aircraft	K6
	components and parts.	
PO5	Capability of exhibiting sound theoretical and practical knowledge in	K2
	core domains like aircraft structures, aerodynamics and propulsion	
	and are able to solve problems related to airflow over fixed and	
	rotary wing aircrafts.	
PO6	Understanding of the impact of engineering solutions in a global,	K2
	economic, environmental, and societal context	
PO7	An ability to design a system, component, or process to meet desired	K6
	needs within realistic constraints such as economic, environmental,	
	social, political, ethical, health and safety, manufacturability, and	
	sustainability.	
PO8	Commitment to professional ethics and responsibilities and norms as	K2
	prescribed by the Aviation bodies such as DGCA.	
PO9	Ability to work in team and have practical exposure in modeling of	КЗ
	UAV, hovercrafts.	
PO10	Ability to communicate effectively with the aerospace community	КЗ
	using reports, presentations and documentations.	
PO11	Ability to manage the projects in various aerospace fields of structure,	K5
	propulsion, avionics.	
PO12	A readiness to engage in lifelong learning and understanding of	K2
	contemporary issues in aviation industry.	

Bloom's Taxonomy Knowledge Levels

K1-	K2-	КЗ-	K4-	K5-	К6-
Remembering	Understanding	Applying	Analyzing	Evaluating	Creating



Syllabus of the course

Course code and Name: AE8401/Aerodynamics-I

UNIT I INTRODUCTION TO LOW SPEED FLOW

Euler equation, incompressible bernoulli's equation. circulation and vorticity, green's lemma and stoke's theorem, barotropic flow, kelvin's theorem, streamline, stream function, irrotational flow, potential function, equiportential lines, elementary flows and their combinations.

UNIT II TWO DIMENSIONAL INVISCID INCOMPRESSIBLE FLOW

Ideal Flow over a circular cylinder, D'Alembert's paradox, magnus effect, Kutta joukowski's theorem, starting vortex, kutta condition, real flow over smooth and rough cylinder.

UNIT III AIRFOIL THEORY

Cauchy-riemann relations, complex potential, methodology of conformal transformation, kuttajoukowski transformation and its applications, thin airfoil theory and its applications.

UNIT IV SUBSONIC WING THEORY

Vortex filament, biot and savart law, bound vortex and trailing vortex, horse shoe vortex, lifting line theory and its limitations.

UNIT V INTRODUCTION TO BOUNDARY LAYER THEORY

Boundary layer and boundary layer thickness, displacement thickness, momentum thickness, energy thickness, shape parameter, boundary layer equations for a steady, two dimensional incompressible flow, boundary layer growth over a flat plate, critical reynolds number, blasius solution, basics of turbulent flow.

TOTAL: 45 PERIODS

TEXT BOOKS:

1. Anderson, J.D., "Fundamentals of Aerodynamics", McGraw Hill Book Co., 2010

2. Houghton, E.L., and Caruthers, N.B., "Aerodynamics for Engineering students", Edward Arnold Publishers Ltd., London, 1989.

REFERENCES:

- 1. Clancey, L J.," Aerodynamics", Pitman, 1986
- 2. John J Bertin., "Aerodynamics for Engineers", Pearson Education Inc, 2002

3. Kuethe, A.M and Chow, C.Y, "Foundations of Aerodynamics", Fifth Edition, John Wiley & Sons, 2000.

4. Milne Thomson, L.H., "Theoretical Aerodynamics", Macmillan, 1985

9

9

9

9

9



GOJAN SCHOOL OF BUSINESS AND TECHNOLOGY Approved by A.I.C.T.E. New Delhi & Affiliated to Anna University, Chennai

Approved by A.I.C.T.E. New Delhi & Affiliated to Anna University, Chennai NAAC Accredited Institution | An ISO 9001:2015 Certified Institution Recognized by UGC u/s 2(f) & 12(B) of the UGC Act 80 Feet Road, Edapalayam, Redhills, Chennai - 600 052.

	COURSE OUTCOMES							
COURSE	COURSE CODE/ NAME : AE8401/AERODYNAMICS - 1							
COs	Students Will Able To	Knowledge Level						
CO 1	Explain Two dimensional potential flows	К2						
CO 2	Recognize the use of Kutta Joukowski's Theorem	КЗ						
CO 3	Apply airfoil theory to predict airfoil performance	КЗ						
CO 4	Apply subsonic wing theory to predict performance of wing	К3						
CO 5	Explain and apply Boundary layer theory	К3						

CO PO MAPPING WITH BLOOM TAXONOMY KNOWLEDGE LEVEL:

						PR	OGRAN		COMES				
COs	P0/C0	PO1	PO2	PO3	PO4	PO5	PO6	P07	PO8	PO9	PO10	PO11	PO12
	K LEVEL	К3	К4	К4	К6	К2	К2	К6	К2	К3	К3	K5	K2
CO1	K2	1	1	1		3							
CO2	К3	2	3			3							
CO3	К3	1	1		3	2							
CO4	К3	2	2			3							
CO5	К3	1	2		2	3							
Avg. CO/PO													
Course Avg. CO/PO													

1- LOW 2- MEDIUM 3- HIGH	1- LOW
--------------------------	--------

GOJAN SCHOOL OF BUSINESS AND TECHNOLOGY, CHENNAI-52

CYCLE TEST- II FEBRUARY-2019

BRANCH	: B.E /AERONAUTICAL	DATE	: 22-02-2019
YEAR/SEM	: II/IV	TIME	: 8.40 AM TO 10.10 AM
COURSE CODE /	TITLE : AE8401/AERODYNAMICS-I	MAX MA	ARKS : 50 Marks
QUESTION SET	:1	NO.OF C	COPIES :28

		Cognitive Level			
K1- Remembering		K3- Applying	K5- Evaluating		
K2- U	nderstanding	K4- Analyzing	K6- C	reating	
		Answer All Questions PART-A (5x2 = 10 Marks)			
Q.No		Questions	COURSE OUT COME	BLOOM'S LEVEL	
1.	State D'Alembert's parad	ox.	CO2	K1	
2.	Define Magus Effect. Pro	vide an example utilizing the concept.	CO2	K1	
3.	What is conformal transfo	ormation?	CO3	K2	
4.	List out important results	of thin airfoil theory.	CO3	K2	
5.	Write down Cauchy's Ri	emann equation.	CO3	K1	

	PART-B (2x13=26 Marks)			
Q.No	Questions	Marks	COURSE OUT COME	BLOOM'S LEVEL
6.a.	(i) What are the assumptions made in thin airfoil theory?(ii) Derive important results of symmetric airfoil using thin airfoil theory.	(6) (7)	CO3	K3
b.	(OR) By using Kutta Joukowski's transformation function, transform circle into symmetric airfoil.	(13)	CO3	К3
7.a.	By using Kutta Joukowski's transformation function, transform circle into asymmetric airfoil.	(13)	CO3	K3
b.	(OR) Transform the straight lines parallel to the x axis in the physical plane, with the transformation function $\xi=1/Z$	(13)	CO3	K4
8.a.	PART-C (1x14=14 Marks) State and prove Kutta Joukowski's theorem. (OR)	(14)	CO2	К3
b.	Flow past a rotating cylinder can be simulated by superposition of a doublet a uniform flow ad vortex. The peripheral velocity of the rotating cylinder is given by V_{θ} at r=R. Use the expression for the combined velocity potential for the superimposed uniform flow, doublet ad		CO2	K4

vortex and show that the resultant velocity at ay point on

the cylinder I given by $-2U_0 \sin\theta - V_{\theta}$ at r=R the angle θ is the angular position of the point of interest. A cylinder rotates at 360 rpm around its own axis which is perpendicular to the uniform air stream (density 1.24Kg/m³) having velocity of 25m/s. the cylinder is 2m in diameter. Determine

(I) Circulation	
(ii) Lift per length and	(4)
(iii) Position of stagnation points	(4)
5 1	(6)

Cognitive Level% CoverageK1 (Remembering)7%K2 (Understanding)4%K3(Applying)59%K4 (Analyzing)30%K5 (Evaluating--K6 (Creating)--

Fulfilment of Bloom's Taxonomy-Details

SIGNATURE OF ECM

CLASS COMMITTEE MEETING	
Department : Aevonautical Engg. Year/Sem : $\underline{\mathbb{D}}/\underline{\mathbb{N}}$ Date of Meeting : $2/2/\underline{\mathbb{N}}$ Venue of Meeting : $2/2/\underline{\mathbb{N}}$ Vine : $\underline{\mathbb{N}}$ Committee Chairman : $12 - aa - 12 \cdot 3a$ Name/Designation/Branch	Initials
Mr. M. Santhash Kumar/AP/Aer	0 M. Sharts FJ.
Faculty Advisor :	
Name/Designation/Branch	Initials
Mr. A. Susendes paul / AP / ARA	a Aerop
Faculty Members :	
Name/Designation/Branch	Initials
Mr. chankar / AP / AP. YO	All -
Mr Nakesh babu/AP/Aeas	Caleerbhah
Mrs. Thandial Selvam / Ap/Begs	TThandaull
Mr. Viswarath raw kunar/AP/Aero	
Name/Sem/Year	Initials
A. Sakthined / iv / 50	1Shot
1 0 Angel / 14 /19	1º cerron
K. Hrunsharma / IV / II	1 Annonere
Agenda Discussed :	
SI. No. Agenda	
1. CT-I Pesposmance	
2. Syllabus Completion	0

Feedback from Students

Staff Name	Handling Subject	Students Feedback
Mr. Than dial selvour	AD - <u>1</u>	Grand &
mr. Nokesh Babu	MOM	Good
Mr. Venkata Subba Reddy	ASÌ	good
Mrs. Suprapha/AP/	NM	J. Good
Mr. Shankag	Prop I	Giand
Mr. Viswanath ravikuna	AS-I	E revellent

Action to be Taken:

* Slow Learners list to be prepared & special clars to be alranged for them. * Progress Report to be sent to the parents.

GOJAN SCHOOL OF BUSINESS & TECHNOLOGY REDHILLS, CHENNAL-600 052.

GOJAN SCHOOL OF BUSINESS AND TECHNOLOGY D. ARTMENT OF AERONAUTICAL ENGIN RING

Name of the Format : Syllabus completion report-Student

Format no. : GSBT/QMS/QF/098

Academic year : Even Sem 2018-2019

Year / semester: III / VI

As On: 26 02 2019

S No. Sub Code	Subject Name	Completed Units Details					Ct. Jack Name	G(- 1 - (G)	
5.10	Sub.Code	Subject Name	Unit I	Unit II	Unit III	Unit IV	Unit V	Student Name	StudentSig.
1	AE6601	Finite Element Methods	~	N	~	80.1.		B. wohore ruma	B. Kunose
2	AE6602	Vibrations and Elements of Aeroelasticity	\checkmark	\checkmark	~	\checkmark	10%.	S. Sushniilha	S. Snil-fly
3	AE6603	Composite Materials and Structures	~	\checkmark	~	50-/.		S.Snshnütha	S.Snilithy.
4	AE6604	Aircraft Materials and Processes	V	V	V	50%		C-AKilan	e die
5	AE6002	Aircraft General Engineering Maintenance & Practices	V	\checkmark	~	V		C-AKilan	e.ste
6	MG6851	Principles of Management	~	~	~	50.1		Brichar winar	B.Ichhole

Lab Experiments Completion Report

Year / semester: III / VI

HOD/AE

As On:

PRINCIPAL

Principal tool of Business & Technology

m. 4444 Chevnel.600 052.

S.No Lab Code Lab Name	ab Code Lab Name To		Lab Co	mpleted	Student Name	StudentSig.	
	Experiments	1 ST Cycle	2 ND Cycle	State and	g.		
1	AE6611	Aero Engine and Airframe Laboratory	10	5	3	C.AKilan	c. de
2	AE6612	Aircraft Design Project - I	10	5	4	J. Mohamed Forsal	I. Ho honed toget
3	AE6613	Computer Aided Simulation Laboratory	10	5	2	B-kithore kumal	B. Krhou

GOJAN SCHOOL OF BUSINESS AND TECHNOLOGY

DL_ARTMENT OF AERONAUTICAL ENGIN RING

Name of the Format : Syllabus completion report-Student

Format no. : GSBT/QMS/QF/098

Academic year : Even Sem 2018-2019

Year / semester: II / IV

As On: 26 02 2019

S.No Sub.Code	Subject Name	Completed Units Details					Student Nome	St. 1 (St.	
	Satio Subject Haine	Unit I	Unit II	Unit III	Unit IV	Unit V	Student Name	Studentsig.	
1	AE8401	Aerodynamics - I	M	1	1	1		P. Divya.	R-Dy-
2	AE8402	Aircraft Systems and Instruments	~	V	V	50%		J. Mohan Ray	J.M.PL
3	PR8451	Mechanics of Machines	M	M	N	251.		V. Madug	V.m.dn
4	AE8403	Aircraft Structures- I	\checkmark	V	V	60%		J. Nahan Ray	J. M. RE
5	AE8404	Propulsion - I			1	1		K. Amershaving	12 lester
6	MA8491	Numerical Methods	.~	1	~	75%		* madurg	Vindun

Lab Experiments Completion Report

Year / semester: II / IV

As On: 26 02 2019

S.No Lab Code	Lab Name	Total No. Of	tal No. Of Lab Completed		Student Name	StudentSig	
		Experiments	1 ST Cycle	2 ND Cycle		Stationang	
1	AE8411	Aerodynamics Laboratory	10	4	2	K. Armsharma	Vla la
2	ME 8381	Computer Aided Machine Drawing Laboratory	15	7]	J. MOHAN RAI	JINARY

HOD/AERC

Bojan School of Business & Technology Redhills, Chonnai-600 052.

PRINCIPAL