



DEPARTMENT OF CIVIL ENGINEERING
UNIVERSITY COLLEGE OF ENGINEERING (Autonomous), O.U.

A.I.C.T.E. MODEL CURRICULUM
SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) FOR 8 SEMESTERS

With effect from 2015-16

S.No	Course Work-Subject Area	Credits/Semester								Credits Obtained / Required
		I	II	III	IV	V	V I	VI I	VIII	
1.	Humanities and Social Sciences (HS)	-	3	-	3	5	-	-	2	13/12
2.	Basic Sciences (BS)	9.5	9.5	2	-	-	-	-	-	21/26
3.	Engineering Sciences (ES)	9	6.5	8	1	-	-	-	-	24.5/29
4.	Professional Subjects- Core (PC)	-		10	20	14	1 4	-	-	58/47
5.	Professional Subject-Electives (PE)	-	-	-	-	-	9	12	-	21/23
6.	Open Subjects-Electives (OE)	-	-	-	-	-	3	3	2	8/11
7.	Project Work, Seminar and/or Internships (PW)	-	-	-	-	-	-	6	6	12/12
9.	Mandatory Courses (MC) (<i>Credit</i>)	-	-	-	-	2	-	-	-	2
	TOTAL	18.5	19	20	24	24	26	20	8	159.5 /160
8.	Mandatory Courses (MC) (<i>Non-Credit</i>)			-	-	-	-	1	-	
	Contact Hours/ Week	26	25	28	26	23	2 8	28	14	

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 Head & Chair-Person BOS
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A.I.C.T.E. MODEL CURRICULUM
SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - I SEMESTER

With effect from 2018-19

S. No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	MC 100HS	Induction Program					3 weeks			
2	BS 101MT	Engineering Mathematics-I	3	1	-	-	4	30	70	4
3	BS 102PH	Engineering Physics	3	1	-	-	4	30	70	4
4	ES 101CE	Engineering Mechanics	3		-	-	3	30	70	3
5	BS 151 PH	Engineering Physics Lab	-	-	-	3	3	25	50	1.5
6	ES 151 ME	Workshop Practice	-	-	-	6	6	25	50	3
7	ES 152CE	Engineering Graphics	-	-	-	-	6	50	50	3
		Total	09	02	06	09	26	190	360	18.5

Service Courses: M.E. (Mech. Engg)

S. No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	MC 302CE	Environmental Sciences	2	1	-	3	30	70	0	2

E.E.E.

2	ES 152CE	Engineering Graphics	-	-	-	-	6	50	50	3
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SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - II SEMESTER

With effect from 2018-19

S.No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	HS 201EG	English	2	-	-	-	2	30	70	2
	BS 201MT	Engineering Mathematics-II	3	1	-	-	4	30	70	4
2	BS 202CH	Engineering Chemistry	3	1	-	-	4	30	70	4
3	ES 201CE	Programming for Problem Solving	3	-	-	-	3	30	70	3
4										
5	HS 251EG	English Lab	-	-	-	2	2	25	50	1
6	BS 251CH	Engineering Chemistry Lab	-	-	-	3	3	25	50	1.5
7	ES 251CS	Programming for Problem Solving Lab	-	-	-	3	3	25	50	1.5
8	ES 252CE	Computer Aided Civil Engg. Drawing	-	-	4	-	4	50	50	2
		Total	11	02	04	08	25	245	480	19

Service Courses: B.M.E., C.S.E. & E.C.E.

S. No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	ES 152CE	Engineering Graphics	-	-	6	-	6	50	50	3

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SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - III SEMESTER

With effect from 2019-20

S.No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	BS 301MT	Mathematics-III (PDE, Probability)	2	-	-	-	3	30	70	2
	ES 301CE	Survey and Geomatics	2	1	-	-	3	30	70	3
2	PC 301CE	Solid Mechanics	3	1	-	-	4	30	70	3
3	PC 302CE	Fluid Mechanics	3	1	-	-	4	30	70	3
	PC 303CE	Building Material and Construction	3	-	-	-	3	30	70	3
	ES 302EE	Basic Electrical Engineering	3	1	-	-	4	30	70	4
	MC 302CE	Environmental Sciences	2	1	-	-	3	30	70	0
	ES 351CE	Survey laboratory	-	-	-	2	2	25	50	1
	PC 351CE	Fluid Mechanics Laboratory	-	-	-	2	2	25	50	1
		Total	21	03	-	4	28	260	590	20

* Interactive Session

Service Courses: E.E.E.

S. No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	ES 101CE	Engineering Mechanics	3	-	-	-	3	30	70	3

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SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - IV SEMESTER

With effect from 2019-20

S.No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	HS 301MB	Managerial Economics and Accountancy	3	-	-	-	3	30	70	3
2	PC 401CE	Mechanics of Materials	3	-	-	-	3	30	70	3
3	PC 402CE	Design of Reinforced Concrete Structures	3	-	-	-	3	30	70	3
4	PC 403CE	Hydraulic Engineering	3	-	-	-	3	30	70	3
5	PC 404CE	Hydrology and Water Management	3	-	-	-	3	30	70	3
6	PC 405CE	Construction Technology and Management	3	-	-	-	3	30	70	3
7	PC 401BS	Engineering Geology	2	-	-	-	2	30	70	2
 										
8	PC 451 CE	Material Testing lab	-	-	-	2	2	25	50	1
9	PC 452 CE	Hydraulic Engineering Laboratory	-	-	-	2	2	25	50	1
10	PC 453 BS	Engineering Geology Lab	-	-	-	2	2	25	50	1
11	ES 661 CE	Survey Camp	-	-	-	-	-	50	-	1
			15	05		06	26	335	640	24

Service Courses: C.S.E., E.C.E. & E.E.E.

S. No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	MC 302CE	Environmental Sciences	2	1	-	-	3	30	70	0

Service Course: B.M.E.

2	PC 406CE	Applied Mechanics	2	1	-	-	3	30	70	3
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SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - V SEMESTER

With effect from 2020-21

S.No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	HS 501LA	Professional Practice, Law & Ethics	2+1*	-	-	-	2	30	70	2
2	HS 501EG	Business Communication and Presentation Skills	3	-	-	-	3	30	70	3
3	PC 501CE	Soil Mechanics	3	-	-	-	3	30	70	3
4	PC 502CE	Water Resource Engineering	3	-	-	-	3	30	70	3
5	PC 503CE	Theory of Structures	3	-	-	-	3	30	70	3
6	PC 504CE	Concrete Technology	3	-	-	-	3	30	70	3
7	MC 501CE	Disaster Management	2 + 1*	-	-	-	2	30	70	2
8	PC 551CE	Soil Mechanics Lab	-	-	-	2	2	25	50	1
9	PC 552CE	Concrete Technology Lab	-	-	-	2	2	25	50	1
			21	02	-	04	26	290	660	21
* Interactive Session										

Service Course: B.M.E.

S. No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	MC 302CE	Environmental Sciences	2	1	-	-	3	30	70	0

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SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) -VI SEMESTER

With effect from 2020-21

S.No.	Course Code	Course Title	Scheme of Instruction			Contact hr/week	Scheme of Examination		Credits	
			L	T	P		CIE	SEE		
1	PC 601CE	Environmental Engg	3	-	-	3	30	70	3	
2	PC 602CE	Design of Steel Structures	3	-	-	3	30	70	3	
3	PC 603CE	Foundation Engineering	3	-	--	3	30	70	3	
3	PC 604CE	Transportation Engg	3	-	-	3	30	70	3	
2	PE - I PE 601CE	Professional Elective – I	3	-	-	3	30	70	3	
5	PE – II PE – 602CE	Professional Elective – II	3	-	-	3	30	70	3	
6	PE – III PE 603CE	Professional Elective-III	3	-	-	3	30	70	3	
7	OE – I OE 601CE	Open Elective – I	3	-	-	3	30	70	3	
8	PC 651CE	Environmental Engg lab	-	-	2	2	25	50	1	
10	PC 652 CE	Transportation Engg Lab	-	-	2	2	25	50	1	
11	PW 653 CE	Summer Internship	6 Weeks							
			24	0	06	28	285	690	26	

PROFESSIONAL ELECTIVE-I			PROFESSIONAL ELECTIVE-II		
1	PE 601 CE	Design of Irrigation Structures	4	PE 604 CE	Advanced Design Of Concrete Structures
2	PE 602 CE	Air & Noise Pollution and Control	5	PE 605 CE	Ground Improvement Techniques
3	PE 603 CE	Pavement Construction And Management	6	PE 606 CE	Geographic Information System
PROFESSIONAL ELECTIVE-III			OPEN ELECTIVE-I		
1	PE 606 CE	Structural Analysis	1	OE 601 CE	Disaster Management
2	PE 607 CE	Pre-Stressed Concrete			
3	PE 608 CE	Finite Element Method			

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SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - VII SEMESTER

With effect from 2021-22

S. No.	Course Code	Course Title	Scheme of Instruction			Contact hr/week	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	PE – IV	Professional Elective – IV	3	-	-	3	30	70	3
2	PE – V	Professional Elective – V	2	-	-	2	30	70	2
3	PE – VI	Professional Elective – VI	3	-	-	3	30	70	3
4	PE – VII	Professional Elective – VII	3	-	-	3	30	70	3
5	HS 701 MC Mandatory Course	Constitution of India / Essence of Indian Knowledge Tradition	2	-	-	2	30	70	2
6	PE 751 CE	Estimation Costing and Specifications Lab	-	-	2	2	25	50	1
7	OE -II	Open Elective-II	3	-	-	-	30	70	3
8	PC 752 CE	Computer Applications in Civil Engineering Lab	-	-	2	2	25	50	1
9	PW762 CE	Project Work-I or Seminars	-	-	4	4	50	-	2
10	PW 653 CE	Summer Internship	-	-	-	-	50	-	-
			16	-	08	21	330	520	20
PROFESSIONAL ELECTIVE-IV			PROFESSIONAL ELECTIVE-V						
1	PE 704CE	Estimation Costing and Specifications	1	PE 701 CE		Value Engineering			
2	PE 705CE	Surface Water Hydrology	2	PE 702CE		Railway Engineering			
3	PE 706CE	Repairs & Rehabilitation of Structures	3	PE 703CE		Ground Water Engineering			
PROFESSIONAL ELECTIVE-VI			PROFESSIONAL ELECTIVE-VII						
1	PE 707 CE	Design of Concrete Structures – II	PE 710 CE			Metal Structure Behavior			
2	PE 708 CE	Earth Quake Resistant Engineering	PE 711 CE			Urban Transport Planning			
3	PE 709 CE	Watershed Management	PE 712 CE			Environmental Impact Assessment and Life Cycle Analyses			
OPEN ELECTIVE – I I									
	OE 602 CE	Green Building Technology							

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S.No.	Course Code	Course Title	Scheme of Instruction			Contact hr/week	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	OE III	Open Elective - III	2	0	0	2	30	70	2
2	PW 851 CE	Project Work-II / Internship	-	-	12	12	50	100	6
		Total	2	-	12	14	80	170	8
OPEN ELECTIVE-III									
	OE 801 CE	Economic Policies in India							
	OE 802CE	Cyber law & Ethics							
	OE 803 CE	History of Science & Engineering							
	OE 804 CE	Indian Music System							
	OE 805 CE	Introduction to Arts and Aesthetics							
	OE 806 CE	Soft Skills and Interpersonal Communication							

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APPROVED NPTEL COURSES FOR CIVIL ENGINEERING STUDENTS
1920-21

S.No.	Course Code	Course Title	Institute offering	Contact hours	Scheme of Examination	Credits counted
PROFESSIONAL COURSES						
	noc20-ce42	Theory of Elasticity	IIT KGP	12 Weeks		3
	noc20-ce43	Integrated Waste Management for a Smart City	IIT KGP	12 Weeks		3
	noc20-ce44	Project Planning & Control	IITM	8 Weeks		2
	noc20-ce47	Glass in buildings: Design and applications	IITM & Glass Academy	12 Weeks		3
	noc20-ce52	Earthquake Resistant Design of Foundations	IITR	8 Weeks		2
	noc20-ce53	Introduction to Multimodal Urban Transportation Systems (MUTS)	IIT KGP	12 Weeks		3
	noc20-ce54	River Engineering	IITG	8 Weeks		2
	noc20-ce55	Design of Masonry Structures	IITM	12 Weeks		3
OPEN ELECTIVE COURSES						
	noc20-hs48	Human resource Development (Management Dept)	IIT KGP	12 Weeks		3
	noc20-mg39	Soft Skills For Business Negotiations And Marketing Strategies (Management Dept)	IIT KGP	12 Weeks		3
	noc20-mg41	Leadership (Management Dept)	IIT KGP	4 Weeks		1
	noc20-mg44	Ethics in Engineering Practice (Management Dept)	IIT KGP	8 Weeks		2

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