

**ACADEMIC REGULATIONS
COURSE STRUCTURE
AND
DETAILED SYLLABUS**

**MECHANICAL
ENGINEERING**

For

B.Tech., FOUR YEAR DEGREE COURSE
(Applicable for the batches admitted from 2013-14)



**JAWAHARLAL NEHRU TECHNOLOGICAL
UNIVERSITY KAKINADA**
KAKINADA – 533003, ANDHRA PRADESH, INDIA.

COURSE STRUCTURE**I Year – I SEMESTER**

S. No.	Subject	T	P	Credits
1	English – I	3+1	--	3
2	Mathematics - I	3+1	--	3
3	Engineering Chemistry	3+1	--	3
4	Engineering Mechanics	3+1	--	3
5	Computer Programming	3+1	--	3
6	Environmental Studies	3+1	--	3
7	Engineering Chemistry Laboratory	--	3	2
8	English - Communication Skills Lab - I	--	3	2
9	C Programming Lab	--	3	2
Total Credits				24

I Year – II SEMESTER

S. No.	Subject	T	P	Credits
1	English – II	3+1	--	3
2	Mathematics – II (Mathematical Methods)	3+1	--	3
3	Mathematics – III	3+1	--	3
4	Engineering Physics	3+1	--	3
5	Professional Ethics and Human Values	3+1	--	3
6	Engineering Drawing	3+1	--	3
7	English - Communication Skills Lab - II	--	3	2
8	Engineering Physics Lab	--	3	2
9	Engineering Physics – Virtual Labs - Assignments	--	2	--
10	Engg. Workshop & IT Workshop	--	3	2
Total Credits				24

II Year – I SEMESTER

S. No.	Subject	T	P	Credits
1	Metallurgy & Materials Science	3+1*	--	3
2	Mechanics of Solids	3+1*	--	3

I Year – I SEMESTER

T	P	C
3+1	0	3

ENVIRONMENTAL STUDIES**Course Learning Objectives:**

The objectives of the course is to impart.

1. Overall understanding of the natural resources.
2. Basic understanding of the ecosystem and its diversity.
3. Acquaintance on various environmental challenges induced due to unplanned anthropogenic activities.
4. An understanding of the environmental impact of developmental activities.
5. Awareness on the social issues, environmental legislation and global treaties.

Course Outcomes:

The student should have knowledge on

1. The natural resources and their importance for the sustenance of the life and recognise the need to conserve the natural resources.
2. The concepts of the ecosystem and its function in the environment. The need for protecting the producers and consumers in various ecosystems and their role in the food web.
3. The biodiversity of India and the threats to biodiversity, and conservation practices to protect the biodiversity.
4. Various attributes of the pollution and their impacts and measures to reduce or control the pollution along with waste management practices.
5. Social issues both rural and urban environment and the possible means to combat the challenges.
6. The environmental legislations of India and the first global initiatives towards sustainable development.
7. About environmental assessment and the stages involved in EIA and the environmental audit.

Syllabus:**UNIT - I**

Multidisciplinary nature of Environmental Studies: Definition, Scope and Importance – Sustainability: Stockholm and Rio Summit–Global Environmental Challenges: Global warming and climate change, acid rains,

ozone layer depletion, population growth and explosion, effects. Role of information Technology in Environment and human health.

Ecosystems: Concept of an ecosystem. - Structure and function of an ecosystem. - Producers, consumers and decomposers. - Energy flow in the ecosystem - Ecological succession. - Food chains, food webs and ecological pyramids. - Introduction, types, characteristic features, structure and function of Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems.

UNIT - II

Natural Resources: Natural resources and associated problems.

Forest resources – Use and over – exploitation, deforestation – Timber extraction – Mining, dams and other effects on forest and tribal people.

Water resources – Use and over utilization of surface and ground water – Floods, drought, conflicts over water, dams – benefits and problems.

Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources.

Food resources: World food problems, changes caused by non-agriculture activities-effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity.

Energy resources: Growing energy needs, renewable and non-renewable energy sources use of alternate energy sources.

Land resources: Land as a resource, land degradation, Wasteland reclamation, man induced landslides, soil erosion and desertification. Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles.

UNIT - III

Biodiversity and its conservation: Definition: genetic, species and ecosystem diversity- classification - Value of biodiversity: consumptive use, productive use, social-Biodiversity at national and local levels. India as a mega-diversity nation - Hot-spots of biodiversity - Threats to biodiversity: habitat loss, man-wildlife conflicts. - Endangered and endemic species of India – Conservation of biodiversity: conservation of biodiversity.

UNIT - IV

Environmental Pollution: Definition, Cause, effects and control measures of Air pollution, Water pollution, Soil pollution, Noise pollution, Nuclear hazards. Role of an individual in prevention of pollution. - Pollution case studies.

Solid Waste Management: Sources, classification, effects and control measures of urban and industrial solid wastes. Consumerism and waste products.

UNIT - V

Social Issues and the Environment: Urban problems related to energy - Water conservation, rain water harvesting-Resettlement and rehabilitation of people; its problems and concerns. Environmental ethics: Issues and possible solutions. Environmental Protection Act -Air (Prevention and Control of Pollution) Act. -Water (Prevention and control of Pollution) Act -Wildlife Protection Act -Forest Conservation Act-Issues involved in enforcement of environmental legislation. -Public awareness.

UNIT - VI

Environmental Management: Impact Assessment and its significance various stages of EIA, preparation of EMP and EIS, Environmental audit. Ecotourism.

The student should submit a report individually on any issues related to Environmental Studies course and make a power point presentation.

Text Books:

1. Environmental Studies by R. Rajagopalan, 2nd Edition, 2011, Oxford University Press.
2. A Textbook of Environmental Studies by Shaashi Chawla, TMH, New Delhi
3. Environmental Studies by P.N. Palanisamy, P. Manikandan, A. Geetha, and K. Manjula Rani; Pearson Education, Chennai

Reference:

1. Text Book of Environmental Studies by Deeshita Dave & P. Udaya Bhaskar, Cengage Learning.
2. Environmental Studies by K.V.S.G. Murali Krishna, VGS Publishers, Vijayawada.
3. Environmental Studies by Benny Joseph, Tata McGraw Hill Co, New Delhi.
4. Environmental Studies by Piyush Malaviya, Pratibha Singh, Anoop singh: Acme Learning, New Delhi.



SRK INSTITUTE OF TECHNOLOGY
ENIKEPADU, VIJAYAWADA-521108.(A.P.)
DEPARTMENT OF SCIENCES & HUMANITIES
Class Time Table

SRKIT / S & H /10.1

Academic Year:2015-2016

Class: MECH

Semester: I

Section: A											
TIME	8.45-9.35	9.35-10.25	10.25-11.15	5 Min	11.25-12.15	12.15-1.00	1.15-2.00	1.45-2.30	2.30-3.10	10Min	3.20 - 4.00
Hours / Day	1	2	3	BREAK	4	5	LUNCH	6	7	BREAK	8
MON	ENG	CP	EC		EC	EC		M-I	CP		EM
TUE	M-I	EM	ES		ENG	ENG		M-I	ENG		EM
WED	EC	EM	CP		EM	EM		EC LAB			EC LAB
THU	CP LAB				ES	ES		ES	M-I		ENG
FRI	CP	M-I	EM		CP	CP		ENG LAB			ENG LAB
SAT	CP	ES	EC		M-I	M-I		CP	ES		M-I

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DEPARTMENT OF SCIENCES & HUMANITIES
Class Time Table

SRKIT / S & H / 10.1

Academic Year:2015-2016

Class: MECH

Semester: I

Section: B												
TIME	8.45-9.35	9.35-10.25	10.25-11.15	5 Min	11.25-12.15	12.15-1.00	1.15-2.00	1.45-2.30	2.30-3.10	10Min	3.20 - 4.00	
Hours / Day	1	2	3	BREAK	4	5	LUNCH	6	7	BREAK	8	
MON	CP	M-I	EM		ES	ES		EC LAB			EC LAB	
TUE	CP LAB				M-I	M-I		EC	ES		CP	
WED	ENG LAB				CP	CP		M-I	ENG		EM	
THU	EC	M-I	EM		EC	EC		CP	ES		ENG	
FRI	EM	CP	ES		EM	EM		EC	CP		M-I	
SAT	M-I	EM	ENG		EM	EM		EC	CP		M-I	

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DEPARTMENT OF SCIENCES & HUMANITIES
Class Time Table

SRKIT / S & H /10.1

Academic Year:2015-2016

Class: MECH

Semester: II

Section: A											
TIME	8.45-9.35	9.35-10.25	10.25-11.15	5 Min	11.25-12.15	12.15-1.00	1.15-2.00	1.45-2.30	2.30-3.10	3.20 - 4.00	
Hours / Day	1	2	3	BREAK	4	5	LUNCH	6	7	8	
MON	EP	M-III	ENG		EP/MAR	PEHV		M-III/LIBRARY	M-II	PEHV/SS	
TUE	M-II	PEHV	M-III		EP	ENG		ED			
WED	EP	M-II	PEHV		ENG	M-III/SS		EP LAB			
THU	IT/EWS				M-II	EP/CS		M-II	M-III	ENG/SS	
FRI	ENG LAB				EP	M-II/ENG		M-III	PEHV	M-II/SS	
SAT	-----ED-----				-----ED-----			M-III	EP/SS		

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Class Time Table

SRKIT / S & H /10.1

Academic Year:2015-2016

Class: MECH

Semester: II

Section: B

TIME	8.45-9.35	9.35-10.25	10.25-11.15	5 Min	11.25-12.15	12.15-1.00	1.15-2.00	1.45-2.30	2.30-3.10	3.20 - 4.00
Hours / Day	1	2	3	BREAK	4	5	LUNCH	6	7	8
MON	M-III	EP	M-II		ENG	M-III/MAR		EP LAB		
TUE	M-III	ENG	PEHV		M-II/ENG SS	PEHV		EP	M-II	EP/SS
WED	M-II	M-III	EP/CS		PEHV	EP		ENG LAB		
THU	ED				ED	ED		ENG	PEHV	M-III/SS
FRI	M-III	EP	M-II		PEHV/SS	ENG		ED		
SAT	IT/EWS				M-III	M-II		EP/SPORTS	M-II/SS	

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COURSE STRUCTURE AND SYLLABUS

For

ELECTRONICS AND COMMUNICATION ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

I Year - I Semester

S.No.	Subjects	L	T	P	Credits
1-HS	English – I	4	--	--	3
2-BS	Mathematics - I	4	--	--	3
3-ES	Mathematics -II (Numerical Methods and Complex Variables)	4	--	--	3
4-BS	Applied Physics	4	--	--	3
5-ES	Computer Programming	4	--	--	3
6-ES	Engineering Drawing	1	--	3	3
7-HS	English - Communication Skills Lab -1	--	--	3	2
8-BS	Applied / Engineering Physics Laboratory	--	--	3	2
9-BS	Applied / Engineering Physics – Virtual Labs - Assignments	--	--	2	--
10-ES	Engineering Workshop& IT Workshop	--	--	3	2
Total Credits					24

I Year - II Semester

S.No.	Subjects	L	T	P	Credits
1-HS	English – II	4	--	--	3
2-BS	Mathematics -III	4	--	--	3
3-BS	Applied Chemistry	4	--	--	3
4-ES	Electrical and Mechanical Technology	4	--	--	3
5-HS	Environmental Studies	4	--	--	3
6-ES	Data Structures	4	--	--	3
7-BS	Applied / Engineering Chemistry Laboratory	--	--	3	2
8-HS	English - Communication Skills Lab -2	--	--	3	2
9-ES	Computer Programming Lab	--	--	3	2
Total Credits					24



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I Year - II Semester

L	T	P	C
4	0	0	3

ENVIRONMENTAL STUDIES

Course Learning Objectives:

The objectives of the course is to impart

- Overall understanding of the natural resources
- Basic understanding of the ecosystem and its diversity
- Acquaintance on various environmental challenges induced due to unplanned anthropogenic activities
- An understanding of the environmental impact of developmental activities
- Awareness on the social issues, environmental legislation and global treaties

Course Outcomes:

The student should have knowledge on

- The natural resources and their importance for the sustenance of the life and recognize the need to conserve the natural resources
- The concepts of the ecosystem and its function in the environment. The need for protecting the producers and consumers in various ecosystems and their role in the food web
- The biodiversity of India and the threats to biodiversity, and conservation practices to protect the biodiversity
- Various attributes of the pollution and their impacts and measures to reduce or control the pollution along with waste management practices
- Social issues both rural and urban environment and the possible means to combat the challenges
- The environmental legislations of India and the first global initiatives towards sustainable development.
- About environmental assessment and the stages involved in EIA and the environmental audit.
- Self Sustaining Green Campus with Environment Friendly aspect of – Energy, Water and Wastewater reuse Plantation, Rain water Harvesting, Parking Curriculum.

Syllabus:

UNIT – I Multidisciplinary nature of Environmental Studies: Definition, Scope and Importance –Sustainability: Stockholm and Rio Summit–Global Environmental Challenges: Global warming and climate change, Carbon Credits, acid rains, ozone layer depletion, population growth and explosion, effects. Role of information Technology in Environment and human health.

Ecosystems: Concept of an ecosystem. - Structure and function of an ecosystem. - Producers, consumers and decomposers. - Energy flow in the ecosystem - Ecological succession. - Food chains, food webs and ecological pyramids. - Introduction, types, characteristic features, structure and function of Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems.

UNIT – II Natural Resources: Natural resources and associated problems

Forest resources – Use and over – exploitation, deforestation – Timber extraction – Mining, dams and other effects on forest and tribal people

Water resources – Use and over utilization of surface and ground water – Floods, drought, conflicts over water, dams – benefits and problems

Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, Sustainable mining of Granite, Lignite, Coal, Sea and River sands.

Food resources: World food problems, changes caused by non-agriculture activities-effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity

Energy resources: Growing energy needs, renewable and non-renewable energy sources use of alternate energy sources Vs Oil and Natural Gas Extraction.

Land resources: Land as a resource, land degradation, Wasteland reclamation, man induced landslides, soil erosion and desertification. Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles.

UNIT – III Biodiversity and its conservation: Definition: genetic, species and ecosystem diversity- classification - Value of biodiversity: consumptive use, productive use, social-Biodiversity at national and local levels. India as a mega-diversity nation - Hot-spots of biodiversity - Threats to biodiversity: habitat loss, man-wildlife conflicts - Endangered and endemic species of India – Conservation of biodiversity: conservation of biodiversity.

UNIT – IV Environmental Pollution: Definition, Cause, effects and control measures of Air pollution, Water pollution, Soil pollution, Noise pollution, Nuclear hazards. Role of an individual in prevention of pollution. - Pollution case studies, Sustainable Life Studies.

Solid Waste Management: Sources, Classification, effects and control measures of urban and industrial solid wastes. Consumerism and waste products, Biomedical, Hazardous and e – waste management.

UNIT – V Social Issues and the Environment: Urban problems related to energy -Water conservation, rain water harvesting-Resettlement and rehabilitation of people; its problems and concerns. Environmental ethics: Issues and possible solutions. Environmental Protection Act -Air (Prevention and Control of Pollution) Act. -Water (Prevention and control of Pollution) Act -Wildlife Protection Act -Forest Conservation Act-Issues involved in enforcement of environmental legislation. -Public awareness.

UNIT – VI Environmental Management: Impact Assessment and its significance various stages of EIA, preparation of EMP and EIS, Environmental audit. Ecotourism, Green Campus – Green business and Green politics.

The student should Visit an Industry/Ecosystem and submit a report individually on any issues related to Environmental Studies course and make a power point presentation.

Text Books:

1. Environmental Studies, K.V. S. G. Murali Krishna, VGS Publishers, Vijayawada
2. Environmental Studies , R. Rajagopalan, 2nd Edition, 2011, Oxford University Press.
3. Environmental Studies, P.N. Palanisamy, P. Manikandan, A. Geetha, and K. Manjula Rani; Pearson Education, Chennai

Reference:

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2. A Textbook of Environmental Studies, Shaashi Chawla, TMH, New Delhi
3. Environmental Studies, Benny Joseph, Tata McGraw Hill Co, New Delhi
4. "Perspectives in Environment Studies" Anubha Kaushik, C P Kaushik, New Age International Publishers, 2014



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DEPARTMENT OF SCIENCES & HUMANITIES**

SRKIT / S & H /10.1

Class Time Table

Academic Year:2018-2019

Class: ECE

Semester: II

Section: A										
TIME	9.00-9.50	9.50-10.40	10.40-11.30	5 Min	11.35-12.25	12.25-1.15	1.15-2.00	2.00-2.45	2.45-3.30	3.30 - 4.15
Hours / Day	1	2	3	BREAK	4	5	LUNCH	6	7	8
MON	M-III	DS	A.C		-----ENG-----	QA		EMT	ES	
TUE	-----ENG LAB-----				-----A.C-----	ES		EMT	M-III	
WED	ES	DS	A.C		-----M-III-----	-----CP LAB-----				
THU	-----A.C LAB-----				EMT	DS		A.C	LIBRARY	ENG
FRI	ENG	DS	M-III		-----EMT-----	M-III		ES	SS	
SAT	EMT	A.C	M-III		DS	ENG		COUNSELLING/REVIEW S	CLUB ACTIVITIES	

LABS:

ECS LAB -Mr.Yellamanda Vusa
A.C LAB -Mr.K.Naga Raju
CP LAB -Ms.K.Nandini

ENGLISH II -Mr.Yellamanda Vusa
M-III -Mr.B.V.Rama Krishna Rao
A.C -Mr.K.Naga Raju
EMT- Ms.T.Maha Lakshmi/Mr.Vijaya Rao
ES -Dr.N.Sridevi
DS -Ms.K.Nandini
Soft Skills(SS)T.Kereen Susmitha
Quantitative Aptitude(QA)G.Phanindra

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DEPARTMENT OF SCIENCES & HUMANITIES
Class Time Table

SRKIT / S & H /10.1

Academic Year:2018-2019

Class: ECE

Semester: II

Section: B

TIME	9.00-9.50	9.50-10.40	10.40-11.30	5 Min	11.35-12.25	12.25-1.15	1.15-2.00	2.00-2.45	2.45-3.30	3.30 - 4.15	
Hours / Day	1	2	3	BREAK	4	5	LUNCH	6	7	8	
MON	A.C	M-III	EMT		DS	M-III		ES	LIBRARY	ENG	
TUE	M-III	DS	ES		-----EMT-----			ENG	A.C	SS	
WED	EMT	M-III	ENG		DS	ES		-----A.C LAB-----			
THU	-----CP LAB-----				-----M-III-----			ENG	EMT	A.C	
FRI	ES	M-III	QA		DS	A.C		-----ENG LAB-----			
SAT	ENG	DS	EMT		-----A.C-----			COUNSELLING/REVIEW S	CLUB ACTIVITIES		

LABS:

ECS LAB -Mr.Yellamanda Vusa
A.C LAB -Mr.K.Naga Raju
CP LAB -Ms.K.Nandini

ENGLISH II -Mr.Yellamanda Vusa
M-III -Ms.S.Kalpana
A.C -Mr.K.Naga Raju
EMT- Ms.T.Maha Lakshmi/Mr.Vijaya Rao
ES -Ms.D.Udaya Keerthi
DS -Ms.K.Nandini
Soft Skills(SS)T.Kereen Susmitha
Quantitative Aptitude(QA)G.Phanindra

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COURSE STRUCTURE AND SYLLABUS

For

CIVIL ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

II Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Probability & Statistics	4	--	--	3
2	Basic Electrical & Electronics Engineering	4	--	--	3
3	Strength of Materials-I	4	--	--	3
4	Building Materials & Construction	4	--	--	3
5	Surveying	4	--	--	3
6	Fluid Mechanics	4	--	--	3
7	Survey Field Work - I	--	--	3	2
8	Strength of Materials Lab	--	--	3	2
MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					22

II Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Building Planning & Drawing	4	--	--	3
2	Strength of Materials - II	4	--	--	3
3	Hydraulics & Hydraulic Machinery	4	--	--	3
4	Concrete Technology	4	--	--	3
5	Structural Analysis - I	4	--	--	3
6	Transportation Engineering - I	4	--	--	3
7	FM & HM Lab	--	--	3	2
8	Survey Field Work - II	--	--	3	2
MC	Managerial Economics & Financial Analysis	2	--	--	--
Total Credits					22



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R16

II Year - I Semester

L	T	P	C
0	3	0	0

PROFESSIONAL ETHICS AND HUMAN VALUES

Course Objectives:

*To give basic insights and inputs to the student to inculcate Human values to grow as a responsible human beings with proper personality.

*Professional Ethics instills the student to maintain ethical conduct and discharge their professional duties.

Outcome:

*It gives a comprehensive understanding of a variety issues that are encountered by every professional in discharging professional duties.

*It provides the student the sensitivity and global outlook in the contemporary world to fulfill the professional obligations effectively.

UNIT I: Human Values: Morals, Values and Ethics – Integrity –Trustworthiness - Work Ethics – Service Learning – Civic Virtue – Respect for others – Living Peacefully – Caring – Sharing – Honesty –Courage – Value Time – Co-operation – Commitment – Empathy – Self-confidence – Spirituality- Character.

UNIT: II: Principles for Harmony: Truthfulness – Customs and Traditions -Value Education – Human Dignity – Human Rights – Fundamental Duties - Aspirations and Harmony (I, We & Nature) – Gender Bias - Emotional Intelligence – Salovey – Mayer Model – Emotional Competencies – Conscientiousness.

UNIT III: Engineering Ethics and Social Experimentation:

History of Ethics - Need of Engineering Ethics - Senses of Engineering Ethics- Profession and Professionalism —Self Interest - Moral Autonomy – Utilitarianism – Virtue Theory - Uses of Ethical Theories - Deontology- Types of Inquiry –Kohlberg’s Theory - Gilligan’s Argument –Heinz’s Dilemma - Comparison with Standard Experiments — Learning from the Past –Engineers as Managers – Consultants and Leaders – Balanced Outlook on Law - Role of Codes – Codes and Experimental Nature of Engineering.

UNIT IV: Engineers’ Responsibilities towards Safety and Risk:

Concept of Safety - Safety and Risk – Types of Risks – Voluntary v/sInvoluntary Risk – Consequences - Risk Assessment – Accountability – Liability - Reversible Effects - Threshold Levels of Risk - Delayed v/sImmediate Risk - Safety and the Engineer – Designing for Safety – Risk-Benefit Analysis-Accidents.

UNIT V: Engineers' Duties and Rights:

Concept of Duty - Professional Duties – Collegiality - Techniques for Achieving Collegiality - Senses of Loyalty - Consensus and Controversy - Professional and Individual Rights - Confidential and Proprietary Information - Conflict of Interest-Ethical egoism - Collective Bargaining – Confidentiality - Gifts and Bribes - Problem solving-Occupational Crimes- Industrial Espionage- Price Fixing-Whistle Blowing.

UNIT VI: Global Issues:

Globalization and MNCs –Cross Culture Issues - Business Ethics – Media Ethics - Environmental Ethics – Endangering Lives - Bio Ethics - Computer Ethics - War Ethics – Research Ethics -Intellectual Property Rights.

References:

1. Professional Ethics, R. Subramaniam – Oxford Publications, New Delhi.
2. Ethics in Engineering, Mike W. Martin and Roland Schinzinger - Tata McGraw-Hill – 2003.
3. Professional Ethics and Morals, A. R. Aryasri, Dharanikota Suyodhana - Maruthi Publications.
4. Engineering Ethics, Harris, Pritchard and Rabins, Cengage Learning, New Delhi.
5. Human Values & Professional Ethics, S. B. Gogate, Vikas Publishing House Pvt. Ltd., Noida.
6. Engineering Ethics & Human Values, M. Govindarajan, S. Natarajan and V. S. SenthilKumar-PHI Learning Pvt. Ltd – 2009.
7. Professional Ethics and Human Values, A. Alavudeen, R.Kalil Rahman and M. Jayakumaran – University Science Press.
8. Professional Ethics and Human Values, D. R. Kiran-Tata McGraw-Hill - 2013
9. Human Values And Professional Ethics, Jayshree Suresh and B. S. Raghavan, S.Chand Publications

SRK INSTITUTE OF TECHNOLOGY, ENIKEPADU, VIJAYAWADA
DEPARTMENT OF CIVIL ENGINEERING
II/IV B.TECH I SEMSTER; TIME TABLE; Section-A (R16); AY: 2017-18

w.e.f: 12-06-2017

Period	1	2	B r e a k	3	4	L U N C H	5	6	B r e a k	7	8	
DAY	9:00 -9:50	9:50 -10:40		10:45 -11:35	11:35 -12:25		01:10 -02.00	02:00 -02:45		02:50 -03:35	03:35 -04:20	4:20
MON	FM	BEEE		SUR	P&S		BMC	SM-1-(T)		ETHICS ✓	SPORTS	FS
TUE	SM-1	FM		SUR	BEEE		P&S	Survey/SM LAB		Survey/SM LAB		
WED	P&S	SM-1		SUR-(T)	FM		BMC	Survey/SM LAB		Survey/SM LAB		
THU	BMC	SUR		FM	SM-1		BEEE	ETHICS ✓		P&S-(T)	COUNSELLING	LING
FRI	BEEE	SUR		BMC	FM		SM-1	P&S		LIBRARY	BMC-(T)	T)
SAT	SUR	P&S		BMC	BEEE		FM-(T)	SM-1		BEEE-(T)		

Subject

- 1.Strength of Materials (SM-1)
- 2.Building Materials & Construction (BMC)
- 3.Surveying (SUR)
- 4.Fluid Mechanics (FM)
- 5.Basic Electrical & Electronics Engineering (BEEE)
- 6.Probability amd Statistics (P&S)
- 7.Ethics ✓
8. SM Lab
- 9.Survey Lab

Faculty

- Ms.G.Sahithi
Mrs.V.Chinni
Mr.M.Karthik kumar
Mr. N Rama Rao
Mr.N.Keerthi Chandra
Mrs.T.Prasanna
Mr.M Harish
Ms.G.Sahithi/ Mrs. Ch.Mallika Chowdary
Mr.M.Karthik Kumar/Mr. N.Rama Rao

*by
CF*


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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COURSE STRUCTURE - R19

I Year – I SEMESTER

S. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1112	Fundamentals of Computer Science	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1105	IT Workshop	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			16	0	12	19

I Year – II SEMESTER

S. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1201	Programming for Problem Solving using C	3	0	0	3
5	ES1213	Digital Logic Design	3	0	0	3
6	BS1205	Applied Physics Lab	0	0	3	1.5
7	HS1203	Communication Skills Lab	0	1	2	2
8	ES1202	Programming for Problem Solving using C Lab	0	0	3	1.5
9	PR1201	Engineering Exploration Project	0	0	2	1
10	MC1204	Constitution of India	3	0	0	0
Total Credits			18	1	10	21

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I Year - I Semester	L	T	P	C
	3	0	0	0
ENVIRONMENTAL SCIENCE (MC1101)				

Course Objectives:

The objectives of the course are to impart:

- Overall understanding of the natural resources.
- Basic understanding of the ecosystem and its diversity.
- Acquaintance on various environmental challenges induced due to unplanned anthropogenic activities.
- An understanding of the environmental impact of developmental activities.
- Awareness on the social issues, environmental legislation and global treaties.

UNIT I

Multidisciplinary nature of Environmental Studies: Definition, Scope and Importance – Sustainability: Stockholm and Rio Summit–Global Environmental Challenges: Global warming and climate change, acid rains, ozone layer depletion, population growth and explosion, effects. Role of information technology in environment and human health.

Ecosystems: Concept of an ecosystem. - Structure and function of an ecosystem; Producers, consumers and decomposers. - Energy flow in the ecosystem - Ecological succession. - Food chains, food webs and ecological pyramids; Introduction, types, characteristic features, structure and function of Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems.

UNIT II

Natural Resources: Natural resources and associated problems.

Forest resources: Use and over – exploitation, deforestation – Timber extraction – Mining, dams and other effects on forest and tribal people.

Water resources: Use and over utilization of surface and ground water – Floods, drought, conflicts over water, dams – benefits and problems.

Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources.

Food resources: World food problems, changes caused by non-agriculture activities-effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity.

Energy resources: Growing energy needs, renewable and non-renewable energy sources use of alternate energy sources.

Land resources: Land as a resource, land degradation, Wasteland reclamation, man induced landslides, soil erosion and desertification; Role of an individual in conservation of natural resources; Equitable use of resources for sustainable lifestyles.

UNIT III

Biodiversity and its conservation: Definition: genetic, species and ecosystem diversity-classification - Value of biodiversity: consumptive use, productive use, social-Biodiversity at national and local levels. India as a mega-diversity nation - Hot-spots of biodiversity - Threats to biodiversity: habitat loss, man-wildlife conflicts. - Endangered and endemic species of India – Conservation of biodiversity: conservation of biodiversity.

UNIT IV

Environmental Pollution: Definition, Cause, effects and control measures of Air pollution, Water pollution, Soil pollution, Noise pollution, Nuclear hazards. Role of an individual in prevention of



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pollution. - Pollution case studies, Sustainable Life Studies. Impact of Fire Crackers on Men and his well being.

Solid Waste Management: Sources, Classification, effects and control measures of urban and industrial solid wastes. Consumerism and waste products, Biomedical, Hazardous and e – waste management.

UNIT V

Social Issues and the Environment: Urban problems related to energy -Water conservation, rain water harvesting-Resettlement and rehabilitation of people; its problems and concerns. Environmental ethics: Issues and possible solutions. Environmental Protection Act -Air (Prevention and Control of Pollution) Act. -Water (Prevention and control of Pollution) Act - Wildlife Protection Act -Forest Conservation Act-Issues involved in enforcement of environmental legislation. -Public awareness.

Environmental Management: Impact Assessment and its significance various stages of EIA, preparation of EMP and EIS, Environmental audit. Ecotourism, Green Campus – Green business and Green politics.

The student should Visit an Industry / Ecosystem and submit a report individually on any issues related to Environmental Studies course and make a power point presentation.

Text Books:

- 1) Environmental Studies, K. V. S. G. Murali Krishna, VGS Publishers, Vijayawada
- 2) Environmental Studies, R. Rajagopalan, 2nd Edition, 2011, Oxford University Press.
- 3) Environmental Studies, P. N. Palanisamy, P. Manikandan, A. Geetha, and K. Manjula Rani; Pearson Education, Chennai

Reference Books:

- 1) Text Book of Environmental Studies, Deeshita Dave & P. Udaya Bhaskar, Cengage Learning.
- 2) A Textbook of Environmental Studies, Shaashi Chawla, TMH, New Delhi
- 3) Environmental Studies, Benny Joseph, Tata McGraw Hill Co, New Delhi
- 4) Perspectives in Environment Studies, Anubha Kaushik, C P Kaushik, New Age International Publishers, 2014



SRK INSTITUTE OF TECHNOLOGY
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 Department of Science and Humanities
CLASS TIME TABLES

SRKIT / S & H /10.1

Academic Year:2019-2020

Class: CSE

Semester: I

Section: A											
TIME	9.00-9.50	9.50-10.40	10.40-11.30	5 Min	11.35-12.25	12.25-1.15	1.15-2.00	2.00-2.45	2.45-3.30	3.30 - 4.15	
Hours / Day	1	2	3	BREAK	4	5	LUNCH	6	7	8	
MON	-----IT W.S-----				A.C			M-I	CS	ENG	
TUE	FCS	M-I	AC		FCS	ES		-----ENG LAB-----			
WED	AC	ES	M-I		ENG	M-I		COUNSELLING	FCS		
THU	M-I	FCS	LIBRARY		ENG	MA&R		-----AC LAB-----			
FRI	ENG	ES	AC		M-I			-----ED-----			
SAT	-----ED-----				M-I	AC		FCS	CLUBS		

English-I : (HS1101) Dr.G.Maithreyi
 Maths-I: (BS1101) Ms.S.Suman
 App.Chemistry: (BS1106) Mr.Raheem Sheik
 Fundamentals of Computer Sciences : (ES1112) Mr. M.V.Sumanth
 Engg Drawing : (ES1103) Ms.D.Haritha
 Environmental Studies : (MC1101)Dr.N.Sridevi
 Mental Ability & Reasoning (MA&R)P.Mohan Padma
 Communication Skills (CS)T Kereen Susmitha

S & H HoD Sign

Labs:

English Lab :(HS1102) Dr.G.Maithreyi
 App.Chemstry Lab: (BS1107) Mr.Raheem Sheik /Mr.K.Naga Raju
 IT Work Shop: (ES1105) Mr. M.V.Sumanth

[Signature]
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 Department of Science and Humanities

SRKIT / S & H /10.1

CLASS TIME TABLES

Academic Year:2019-2020

Class: CSE

Semester: I

Section: B										
TIME	9.00-9.50	9.50-10.40	10.40-11.30	5 Min	11.35-12.25	12.25-1.15	1.15-2.00	2.00-2.45	2.45-3.30	3.30 - 4.15
Hours / Day	1	2	3	BREAK	4	5	LUNCH	6	7	8
MON	FCS	AC	M-I		ENG	MA&R		-----ED-----		
TUE	ES	FCS	M-I		ENG	COUNSEL LING		FCS	AC	LIBRARY
WED	-----ED-----				AC			FCS	M-I	CS
THU	-----IT W.S-----				AC	M-I		ENG	M-I	FCS
FRI	AC	ENG	FCS		ES	M-I		-----AC LAB-----		
SAT	-----ENG LAB-----				M-I			ES	CLUBS	

English-I : (HS1101) Dr.A.Padmaja
 Maths-I:(BS1101) Mr.B.V.R.Krishna Rao
 App.Chemistry: (BS1106) Mr.Raheem Sheik
 Fundamentals of Computer Sciences : (ES1112) Ms.P.Jaya Sree
 Engg Drawing : Ms.D.Haritha
 Environmental Studies :(MC1101) Dr.N.Sridevi
 Mental Ability & Reasoning (MA&R)P.Mohan Padma
 Communication Skills (CS)T Kereen Susmitha

Labs:
 English Lab: (HS1102) Dr.A.Padmaja
 App.Chemistry Lab:(BS1107) Mr.Raheem Sheik /Ms.B.Sowjanya
 IT Work Shop: (ES1105) Ms.P.Jaya Sree

S & H HoD Sign

Principal Sign
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