UNIT I : Human Values
Morals, Values and Ethics – Integrity – Work Ethics – Service Learning – Civic Virtue –
Respect for others – Living Peacefully – Caring – Sharing – Honesty – Courage – Value time –

UNIT II : Engineering Ethics
The History of Ethics-Purposes for Engineering Ethics-Engineering Ethics- Consensus and
Controversy –Professional and Professionalism –Professional Roles to be played by an Engineer
–Self Interest, Customs and Religion-Uses of Ethical Theories-Professional Ethics-Types of

UNIT III : Engineering as Social Experimentation
Comparison with Standard Experiments – Knowledge gained – Conscientiousness – Relevant
Information – Learning from the Past – Engineers as Managers, Consultants, and Leaders –
Accountability – Role of Codes – Codes and Experimental Nature of Engineering.

UNIT IV : Engineers’ Responsibility for Safety and Risk
Safety and Risk, Concept of Safety – Types of Risks – Voluntary v/s Involuntary Risk- Short
term v/s Long term Consequences- Expected Probability- Reversible Effects- Threshold Levels
for Risk- Delayed v/s Immediate Risk- Safety and the Engineer – Designing for Safety – Risk-
Benefit Analysis-Accidents.

UNIT V : Engineers’ Responsibilities and Rights
Collegiality-Techniques for Achieving Collegiality –Two Senses of Loyalty- obligations of
Loyalty-misguided Loyalty – professionalism and Loyalty- Professional Rights –Professional
Responsibilities – confidential and proprietary information-Conflict of Interest-solving conflict
problems – Self- interest, Customs and Religion- Ethical egoism-Collective bargaining-
Confidentiality-Acceptance of Bribes/Gifts-when is a Gift and a Bribe- examples of Gifts v/s
Bribes-problem solving-interests in other companies- Occupational Crimes-industrial espionage-
price fixing-endangering lives- Whistle Blowing-types of whistle blowing-when should it be
attempted- preventing whistle blowing.

UNIT VI : Global Issues
Globalization- Cross-culture Issues-Environmental Ethics-Computer Ethics- computers as the
instrument of Unethical behavior-computers as the object of Unethical Acts-autonomous
computers-computer codes of Ethics- Weapons Development-Ethics and Research-Analyzing
Ethical Problems in Research-Intellectual Property Rights.
Text Books

- “Professional Ethics and Morals” by Prof.A.R.Aryasri, Dharanikota Suyodhana- Maruthi Publications.
- “Professional Ethics and Human Values” by A.Alavudeen, R.Kalil Rahman and M. Jayakumaran- Laxmi Publications
- “Professional Ethics and Human Values” by Prof. D.R. Kiran.
- “Indian Culture, Values and Professional Ethics” by PSR Murthy- BS Publication.
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 recognise 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 initiative towards sustainable development.
- About environmental assessment and the stages involved in EIA and the environmental audit.

UNIT – I

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


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


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

• A Textbook of Environmental Studies by Shaashi Chawla, TMH, New Delhi.
• Environmental Studies by P.N. Palanisamy, P. Manikandan, A. Geetha, and K. Manjula Rani; Pearson Education, Chennai.
• Reference
• Text Book of Environmental Studies by Deeshita Dave & P. UdayaBhaskar, Cengage Learning.
• Environmental Studies by K.V.S.G. Murali Krishna, VGS Publishers, Vijayawada.
• Environmental Studies by Benny Joseph, Tata McGraw Hill Co, New Delhi.
• Environmental Studies by Piyush Malaviya, Pratibha Singh, and Anoop singh: Acme Learning, New Delhi.
Syllabus:


Reference Books:
3. Cyber Law. Texts & Cases, South-Western’s Special Topics Collections
CIRCULAR

All the II, III, and IV B.Tech students we here by inform you that our college management is going to organize an event on “support to training and employment program for women” On 14-08-2017. So, we request all the students to attend the program and make it a grand success.

Principal
DATE: 07-08-2017,
SURAMPalem.

Dear Sir/Madam

Sub: Invitation – Seminar on support to training and employment program for women (STEP) -
Circulation among students – Requested – Reg.

* * *

We are Pleased to inform you that Aditya college of engineering is organizing seminar on
“Gender equity program” Which is titled above during 14 august 2017.

Thanking you

Yours faithfully,

(T.RAMA KRISHNA RAO)

PRINCIPAL
DATE: 14-08-2017,

SURAMPALEM.

Dear Sir/Madam,

We are very glad to have your presence as a potential delegate which is conducted on 14-08-2017. Sir our students are very fortunate for having such a valuable speech on support to training and employment program for women and your interaction among students regarding event is speechless. So, we thank you on behalf of our college management, staff and students for spending your valuable time on this event.

Aditya College of Engineering
(T.RAMA KRISHNA RAO)
PRINCIPAL
CIRCULAR

All the II, III, and IV B.Tech students we here by inform you that our college management is going to organize an event on “socio-economic development and empowerment of women” On 02-07-2016. So, we request all the students to attend the program and make it a grand success.

Principal
DATE: 25-06-2016,
SURAMPALEM.

Dear Sir/Madam


* * *

We are Pleased to inform you that Aditya college of engineering is organizing seminar on “Gender equity program” Which is titled above during 02 July 2016.

Thanking you

Yours faithfully,

(T.RAMA KRISHNA RAO)
PRINCIPAL
DATE: 02-07-2016,

SURAMPALEM.

Dear Sir/Madam

We are very glad to have your presence as a potential delegate which is conducted on 02-07-2016. Sir our students are very fortunate for having such a valuable speech on socio-economic development and empowerment of women and your interaction among students regarding event is speechless. So, we thank you on behalf of our college management, staff and students for spending your valuable time on this event.

From

Aditya College of Engineering
(T.RAMA KRISHNA RAO)

PRINCIPAL
CIRCULAR

All the II, III, and IV B.Tech students we here by inform you that our college management is going to organize an event on “Gender equality in higher education must be made a global priority” On 14-10-2015. So, we request all the students to attend the program and make it a grand success.

Principal
DATE: 03-10-2015, SURAMPALEM.

Dear Sir/Madam

Sub: Invitation – Seminar on Gender equality in higher education must be made a global priority


* * *

We are Pleased to inform you that Aditya college of engineering is organizing seminar on

“Gender equity program” Which is titled above during 14 October 2015.

Thanking you

Yours faithfully,

(T.RAMA KRISHNA RAO)

PRINCIPAL
DATE: 14-10-2015,
SURAMPALEM.

Dear Sir/Madam

We are very glad to have your presence as a potential delegate which is conducted on 14-10-2015. Sir our students are very fortunate for having such a valuable speech on Gender equality in higher education must be made a global priority and your interaction among students regarding event is speechless. So, we thank you on behalf of our college management, staff and students for spending your valuable time on this event.

From
Aditya College of Engineering
(T.RAMA KRISHNA RAO)
PRINCIPAL
ADITYA COLLEGE OF ENGINEERING
(Approved by AICTE & Affiliated to JNTUK, Kakinada)
(Recognized by UGC under section 2(f) of UGC Act 1956)
Aditya Nagar, ADB Road, Surampalem - 533 437.

Date: 21-01-2014

CIRCULAR

All the II, III, and IV B.Tech students we here by inform you that our college management is going to organize an event on “Educational development in women” On 23-01-2014. So, we request all the students to attend the program and make it a grand success.

Principal
DATE: 16-01-2014,
SURAMPALEM.

Dear Sir/Madam


* * * *

We are Pleased to inform you that Aditya college of engineering is organizing seminar on “Gender equity program” Which is titled above during 23 January 2014.

Thanking you

Yours faithfully,

(T.RAMA KRISHNA RAO)
PRINCIPAL
DATE: 23-01-2014,
SURAMPALEM.

Dear Sir/Madam

We are very glad to have your presence as a potential delegate which is conducted on 23-01-2014. Sir our students are very fortunate for having such a valuable speech on Educational development in women and your interaction among students regarding event is speechless. So, we thank you on behalf of our college management, staff and students for spending your valuable time on this event.

From
Aditya College of Engineering
(T.RAMA KRISHNA RAO)
PRINCIPAL
CIRCULAR

All the II, III, and IV B.Tech students we here by inform you that our college management is going to organize an event on “Women and gender equality in higher education” On 03-08-2013. So, we request all the students to attend the program and make it a grand success.

Principal
DATE: 23-07-2013,
SURAMPALEM.

Dear Sir/Madam


* * *

We are Pleased to inform you that Aditya college of engineering is organizing seminar on “Gender equity program” Which is titled above during 03 August 2013.

Thanking you

Yours faithfully,

(T.RAMA KRISHNA RAO)
PRINCIPAL
DATE: 03-08-2013,
SURAMPALEM.

Dear Sir/Madam

We are very glad to have your presence as a potential delegate which is conducted on 03-08-2013. Sir our students are very fortunate for having such a valuable speech on Women and gender equality in higher education and your interaction among students regarding event is speechless. So, we thank you on behalf of our college management, staff and students for spending your valuable time on this event.

From
Aditya College of Engineering
(T.RAMA KRISHNA RAO)
PRINCIPAL