

19HSS01 - SCIENCE OF CREATIVITY AND PROFESSIONAL ETHICS

L	T	P	C
1	0	0	1

ASSESSMENT : THEORY

COURSE OUTCOMES

CO1 : Describe the principles of karma yoga and functioning of mind and consciousness.

CO2 : Hypothesize the evolution of Universe and living beings in a global and societal context

CO3 : Infer the principles of Yoga to practice it and know the value of health.

CO4 : Interpret the philosophy of introspection procedures for better living

CO5 : Assess, take personal responsibility and follow professional ethics for sustained growth in career and life.

LIFE FORCE, MIND AND CONSCIOUSNESS

Science of Creativity and Personality Development - Objectives - Principles of Karma Yoga - Duty Consciousness – Communism and Capitalism - Law of Nature - Life Force - Origin - Potentiality of the Life Force - Premordial State - Wave Theory - Consciousness-PanchaThanmatras - Secret of Revelations - Mind - Biomagnetism - Physical Transformation of Biomagnetism. (7)

EVOLUTION OF THE UNIVERSE AND LIVING BEINGS

Evolution of the Universe: Creation Theory - Evolution Theory - Theory of Permanence - Theory of Mithya - Evolution of Living Beings: Absolute Space and Force - Plants Experience Pain - Two Eyes and Two Ears - Seven Constituent Layers in the Body. (5)

YOGA AND ITS BENEFITS

Simple and Safe Yoga - Upa Yoga Practices: Yoga for Peace - Yoga for Health - Yoga for Joy - Yoga for Love - Yoga for Wellbeing - Yoga for Success. Physical Exercise - Meditation - Seven Centers of Meditation - Benefits - Effect of Good Vibrations -Cause and Effect System -Food and Health. (6)

INTROSPECTION

Attachment, Detachment and Moderation in Enjoyment - Imaginary Expectations - Harmony in Life: Self, Family, Society and Nature - Introspection: Analysis of Thought, Moralization of Desire, Neutralization of Anger, Eradication of Worries and Self Realization. (6)

HUMAN VALUES

Morals, Values and Ethics - Integrity - Work Ethics - Service Learning - Virtues - Respect for Others - Living Peacefully – Caring - Sharing - Honesty - Courage - Valuing Time - Cooperation - Commitment - Empathy - Self Confidence - Challenges in Work Place - Impact of cyberspace on individuals. (6)

TOTAL : 30

TEXT BOOKS

1. YogirajVethathri Maharishi, "Karma Yoga - The Holistic Unity", Vethathri Publications, IV Edition, 2009. (Chapters 1-7, 10-12)
2. R.S.Naagarazan, "A Textbook on Professional Ethics and Human Values", New Age International Publishers, New Delhi, 2011.

REFERENCES

1. Sadhguru, "Body the Greatest Gadget and Mind is your Business", Diamond Pocket Books Pvt. Ltd, Isha Foundations, 2013.
2. Swami Vivekananda and Swami Nikhilananda, "Karma Yoga and Bhakti Yoga", II Edition, Ramakrishna Vivekananda Publications, 2008.
3. Henry Dreyfuss, "The Measure of Man and Woman: Human Factors in Design", John Wiley and Sons Publications, 2012.
4. Mike W. Martin and Roland Schinzinger, "Ethics in Engineering", IV Edition, McGraw Hill, NewYork, 2005.
5. M. Govindarajan, S. Natarajan, V.S. Senthilkumar, "Engineering Ethics", I Edition, Prentice Hall of India, 2009.

Semester	III								
Subject Code	21AD36								
Subject Title	Science of Creativity and Professional Ethics								
Duration	One Semester								
Total Contact Hours	30 Hours per semester								
Pre-Requisite	N/A								
Credit Points	1 CP								
Learning and Teaching Structure	<table border="1"> <thead> <tr> <th>L</th> <th>T</th> <th>P</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>0</td> <td>1</td> </tr> </tbody> </table>	L	T	P	C	1	1	0	1
L	T	P	C						
1	1	0	1						
Assessment Type	Theory								
Course Objective	The objective of the course is to develop positive attitudes towards learning and teaching science.								
Course Outcome									
<p>CO1: Describe the principles of karma yoga and functioning of mind and consciousness</p> <p>CO2: Hypothesize the evolution of Universe and living beings in a global and societal context</p> <p>CO3: Infer the principles of Yoga to practice it and know the value of health.</p> <p>CO4: Interpret the philosophy of introspection procedures for better living</p> <p>CO5: Assess, take personal responsibility and follow professional ethics for sustained growth in career and life.</p>									
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<p>Evolution of the Universe: Creation Theory - Evolution Theory - Theory of Permanence - Theory of Mithya - Evolution of Living Beings: Absolute Space and Force - Plants Experience Pain - Two Eyes and Two Ears - Seven Constituent Layers in the Body.</p> <p>(5)</p>									

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(6)

TOTAL: 30**Minimum Requirement to pass the subject**

To pass a subject and meet all COs to a minimum standard, student must have achieved an aggregate mark for the unit of 50% or more.

Text Book

1. Yogiraj Vethathri Maharishi, "Karma Yoga - The Holistic Unity", Vethathri Publications, IV Edition, 2009. (Chapters 1-7, 10-12)
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5. M. Govindarajan, S. Natarajan, V.S. Senthilkumar, "Engineering Ethics", I Edition, Prentice Hall of India, 2009.

17MDC96 - BUSINESS ETHICS

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT : PRACTICAL

COURSE OUTCOME

- *Understand the inhereent conflicts in being ethical*
- *Analyse the ethical dilemmas in common business situations and the ways to solve them.*
- *Broaden the understanding of the way to act rightly in different business situations*
- *Learn to commit to mutual ethical treatment of the human person and do ethical business and ethical leadership.*
- *Make ethical decisions effectivelu and decisively based on ethical thinking and decision making frameworks.*

UNIT I

Introduction to Ethics - Moral Development in human theories and Concepts- Definitions of ethics- theories of Ethics and Ethics Projects -Case Study. (6)

UNIT II

Decision Making Model : Ethics as Making Decisions and Choices - Decision Making frameworks-Conflicts and Ethical Dilemmas - Moral and Ethical dilemmas-Case Study. (6)

UNIT III

Ethics and Business : A sense of Business Ethics - Ethics and International Business - Ethics issues beyond borders- Ethics and economics: Ethical concerns of economic individuals and societies. (6)

UNIT IV

Business Disciplines : Ethics of Marketing and advertising - Ethics of Finance and accounting- Ethics of HR and related aspects-Production and related issues -Ethics of IT. (6)

UNIT V

Ethics and Environment : Environmental Ethics awareness-Business and Social Responsibility-Business response to environmental problems and ethics-International standards-Global Impact. (6)

Total : 30

REFERENCE BOOKS

1. *William. H. Shaw, "Business Ethics", Cengage Advantage Books, 2013.*
2. *Stephen. M. Byars and Kurt Stanberry, "Business Ethices", 2018.*
3. *Das Gupta, Anandha, "Business Ethics", Springer, 2014.*
4. *Denis Collins, "Business Ethics", Second Edition, Sage Publications, 2018*

15MSS92 - PROFESSIONAL ETHICS

L	T	P	C
3	0	0	3

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT : THEORY

COURSE OUTCOME

- *Given a problem scenario, analyse the situation and suggest solutions based on human values like honesty, courage, empathy, character and morality*
- *When presented with a moral dilemma, critically analyse and present solutions using theories of moral autonomy and theories of right action.*
- *Examine a given scenario in the professional life of an Engineer and present a critical note on possible behaviours using professional codes of conduct of Engineers*
- *Engage in informed critical reflection on the nature of professionalism and ethical challenges inherent in professionalism in matters relating to collegiality, loyalty, occupational crime, confidentiality and conflicts of interest*
- *When presented with case on moral issues relating to weapons development or such matters of conflicting interest, critical evaluation of the case using the various professional codes of conduct and present ethical solutions*

HUMAN VALUES

Morals, Values and Ethics - Integrity - Work Ethic - Honesty - Courage -Empathy - Self-Confidence - Character **(8)**

ENGINEERING ETHICS

Senses of 'Engineering Ethics' - variety of moral issues - types of inquiry - moral dilemmas - moral autonomy - Kohlberg's theory - Gilligan's theory - Consensus and Controversy - Models of Professional Roles - Theories about Right Action - Self-interest - Customs and Religion - uses of ethical theories. Valuing Time - Co-operation - Commitment **(10)**

ENGINEERING AS SOCIAL EXPERIMENTATION

Engineering as experimentation - engineers as responsible experimenters - codes of ethics - a balanced outlook on law - the challenger case study **(8)**

SAFETY, RESPONSIBILITIES AND RIGHTS

Safety and risk - assessment of safety and risk - risk benefit analysis and reducing risk - Collegiality and Loyalty - Respect for Authority - Collective Bargaining - Confidentiality - Conflicts of Interest - Occupational Crime - Professional Rights - Employee Rights - IPR - Discrimination **(10)**

GLOBAL ISSUES

Multinational corporations - Environmental Ethics - Computer Ethics - Weapons Development - Engineers as Managers-Consulting Engineers-engineers as expert witnesses and advisors -moral leadership - sample code of conduct. **(9)**

TOTAL : 45

TEXT BOOKS

1. *Mike Martin and Roland Schinzinger, "Ethics in Engineering", McGraw-Hill, New York 1996. (para 2,3,4,5)*
2. *M. Govindarajan, S. Natarajan, V. S. Senthilkumar, "Professional Ethics and Human Values", Prentice Hall, 2013. (para 1)*

REFERENCE BOOKS

1. *Govindarajan M, Natarajan S, Senthil Kumar V. S, "Engineering Ethics", Prentice Hall of India, New Delhi, 2004.*
2. *Charles D. Fleddermann, "Engineering Ethics", Pearson Education / Prentice Hall, New Jersey, 2004*
3. *Charles E Harris, Michael S. Protchard and Michael J Rabins, "Engineering Ethics - Concepts and Cases", Wadsworth Thompson Learning, United States, 2000*
4. *John R Boatright, "Ethics and the Conduct of Business", Pearson Education, New Delhi, 2003.*

ELECTIVE
19MAME01 - ETHICS IN AI

Contact Hours

L	T	P	C
3	0	0	3

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT: THEORY

COURSE OUTCOMES

CO1: Understand the concept of building ethics in machines

CO2: Develop and designs test cases for hypothetical cases in Self driving cars

CO3: Able to build the methodologies for ethical AI

CO4: Identify Ethical priorities in AI systems

CO5: Design AI with rights, consciousness, and freedom

ETHICAL LEARNING, NATURAL AND ARTIFICIAL

Introduction - A Social Perspective -A Developmental Perspective - Default Trust and Default Cooperation - Ethical Development and Ethical Judgment - Artificial Ethical Psychology.

(8)

USE TROLLEY AND ETHICAL OPT-OUT PROBLEM

A Hypothetical Case - Standard Trolley Cases - Other Cases - New and Old Threats - Particular Moral Issues in Self Driving Cars – Case studies - Passengers and Other Drivers - Introduction - Methodological Challenges - Second-Order Ethical Challenges.

(12)

REASONING PREFERENCES AND ETHICAL PRIORITIES IN AI SYSTEMS

Introduction - Background: Frameworks to Model Constraints and Preferences - Modeling Ethical Theories via Hard and Soft Constraints - Using CP-nets to Model Preferences and Ethical Priorities - A Notion of Distance between (Orderings Induced by) CP-nets - Using Distance to Support Ethical Decisions - Distance and Meta preference.

(8)

AUTONOMOUS WEAPONS AND ETHICS OF ARTIFICIAL INTELLIGENCE

Defining Autonomous Weapons - The Moral Problems Raised by Autonomous Weapons - Arguments for the Moral Desirability of Autonomous Weapons.

(5)

DESIGNING AI WITH RIGHTS, CONSCIOUSNESS, SELF-RESPECT, AND FREEDOM

Public policy and Super intelligent AI : The Prospect of Radically Transformative AI - A “Vector Field” Approach to Normative Analysis - The No- Relevant- Difference Argument and Its Two Central Parameters - Two Broad Moral Theories and the Ethical Precautionary Principle - The Puzzle of Consciousness and the Design Policy of the Excluded Middle - Cheerfully Suicidal AI Servants and the Self- Respect Design Policy – Case studies

(12)

TOTAL HOURS: 45

TEXTBOOKS

1. Y S. Matthew Liao, “Ethics of Artificial Intelligence”, First Edition, Oxford University Press, 2020.
2. John C. Havens, “Heartificial Intelligence: Embracing Our Humanity to Maximize Machines”, Tarcher Perigee, 2016

REFERENCE

1. Mark Coeckelbergh, “AI Ethics”, The MIT Press, 2020.

21MBAL18 - INDIAN ETHOS AND BUSINESS ETHICS

L	T	P	C
0	0	4	2

OBJECTIVES:

- To enable the learners in understanding of the basic concepts of Indian Ethos and familiarise about ethical behaviour and value systems at work.
- To enable the learners to have exposure on business ethics and ethical business perspectives.

NOTE:

- The following is the list of topics suggested for preparation and presentation by students twice during the semester.
- This will be evaluated by the faculty member(s) handling the course and the final marks are consolidated at the end of the semester. No end semester examination is required for this course.
 - 1) Indian Ethos and Personality Development
 - 2) Work ethos and values for Professional Managers
 - 3) Indian Values, Value Systems and Wisdom for modern managers
 - 4) Management Lessons from the Vedas, Puranas, Indian religions
 - 5) Spirituality in Business Management
 - 6) Individual Culture and Ethics
 - 7) Ethical codes of conduct and value Systems
 - 8) Loyalty and Ethical Behavior
 - 9) Ethical business issues and solutions
 - 10) Social Responsibilities of Business

TOTAL: 60 PERIODS

OUTCOMES:

After the completion of the course, the students will be able to:

- CO1. The learners are able to apply the basic concepts of Indian ethos and value systems at work.
- CO2. The learners can handle issues of business ethics and offer solutions in ethical perspectives
- CO3. The learners are professionally efficient and skilful in value systems and culture
- CO4. The learners are capable in ethically manage business towards well being of the society.
- CO5. The learners can be socially effective in undertaking business responsibilities.

21MBAL28 – RURAL COMMUNITY ENGAGEMENT

L	T	P	C
0	0	4	2

OBJECTIVES:

- To provide practical opportunities for students to participate in rural community mobilization, service engagement and empowerment activities
- To promote preparation of strategies for building resilience and community responding system in nutrition including water, food safety and healthcare
- To orient the students into Village Development Plans and handling susceptibility of rural communities to impending emergencies arising out of natural and manmade disasters, climate variability

COURSE CONTENT:

1. **Dynamics of Rural Society:** Social, Economic, political and cultural **6**
2. **Community Goal setting** :Inner Engineering **6**
3. **Participatory Learning and social mapping:** Approaches and methods, community project proposal and project management, concept and steps, Thematic maps **12**
4. **Village development** including aspects and process of preparation of village disaster management plan **6**
5. **Resource Mapping:** Natural and Human resource mapping and management **6**
6. **Rural Institutions:** Engagement with school/ street/ Health centre/Panchayat/ SHGs **6**
7. **Community Awareness:** Health &Hygiene/ Rights/ Policies &Programmes/Corruption **6**
8. **Disaster Management:** Disaster Preparedness- Risk reduction, Rehabilitation- Physical and Psychological aspects **6**
9. **Professional Intervention-** Partnership with Public, Private and Non-governmental organizations **6**

TOTAL: 60 PERIODS

OUTCOMES:

- CO1: Understand the social, economic, political and cultural framework of the rural society
- CO2: Address the challenges with suitable solutions in the identified rural issues
- CO3: Engage in rural community development programmes
- CO4: Ability to create community awareness on health and hygiene and disaster management
- CO5: Knowledge on establishing professional intervention

REFERENCES:

1. Common core curriculum for Rural Engagement, National council of Rural Institutes, MHRD, GOI.
2. Katarsingh and Anil Shishodia, "Rural development: Principles, Policies and Management", Sage publications, 2016
3. A Azeez & S.M.J Akhtar, " Rural development in India", Kalpaz publications, 2016
4. Transforming rural India, Ministry of Rural Development, GOI.

CO	PROGRAMME OUTCOMES											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	2	2	3	2	2	1	1	2	2
CO2	3	3	2	2	3	3	2	2	2	2	1	1
CO3	3	3	2	2	2	3	2	3	2	1	2	1
CO4	2	2	3	2	3	3	2	3	1	1	1	2
CO5	2	3	2	2	3	2	2	3	2	1	2	1