# Department of Humanities and Social Sciences

Motilal Nehru National Institute of Technology Allahabad

Prayagraj

# Course Structure and Curriculum of B.Tech. 1st to 8th Semester (In accordance to NEP 2020)

**B.Tech Course Structure 1st Year I Semester**

| Sl.No | Course | Code | Category | L | T | P | Credits | Applicable Branches |
|---|---|---|---|---|---|---|---|---|
| 1. | Professional Communication | HSN11600 | PCE | 2 | 0 | 2 | 3 | ME, CE, BT, CHE, PI, EE, AMD |
| 2. | Professional Ethics and Social Values | EAN11700 | EAA-A | 2 | 0 | 0 | 2 | CSE, ECE |
| 3. | Indian Traditional Music (Vocal) | EAN11701 | EAA-B | 1 | 0 | 2 | 2 | ME, CE, BT, CHE, PI, EE, AMD |
| 4. | Indian Traditional Music (Instrumental) | EAN11702 | EAA-B | 1 | 0 | 2 | 2 | ME, CSE, BT, CHE, PI, EE, AMD |
| 5. | National Service Scheme | EAN11703 | EAA-B | 1 | 0 | 2 | 2 | ME, CE, BT, CHE, PI, EE, AMD |
| 6. | National Cadet Corps-1 | EAN11704 | EAA-B | 1 | 0 | 2 | 2 | All branches |

**B.Tech Course Structure 1st Year II Semester**

| Sl.No | Course | Code | Category | L | T | P | Credits | Applicable Branches |
|---|---|---|---|---|---|---|---|---|
| 1. | Professional Communication | HSN12600 | PCE | 2 | 0 | 2 | 3 | CSE, ECE |
| 2. | Professional Ethics and Social Values | EAN12700 | EAA-A | 2 | 0 | 0 | 2 | ME, CE, BT, CHE, PI, EE, AMD |
| 3. | Indian Traditional Music (Vocal) | EAN12701 | EAA-B | 1 | 0 | 2 | 2 | CSE, ECE |
| 4. | Indian Traditional Music (Instrumental) | EAN12702 | EAA-B | 1 | 0 | 2 | 2 | CSE, ECE |
| 5. | National Service Scheme | EAN12703 | EAA-B | 1 | 0 | 2 | 2 | CSE, ECE |
| 6. | National Cadet Corps-2 | EAN12705 | EAA-B | 1 | 0 | 2 | 2 | All branches |

**B.Tech Course Structure 2nd Year III Semester**

| Sl.No | Course | Code | Category | L | T | P | Credits | Applicable Branches |
|---|---|---|---|---|---|---|---|---|
| 1. | Management Concepts and Applications | HSN13601 | PCE | 3 | 0 | 0 | 3 | Biotech, Chemical, Civil |
| 2. | Business Economics | HSN13602 | PCE | 3 | 0 | 0 | 3 | EE, ECE |
| 3. | Indian Knowledge System | EAN13700 | EAA-B | 2 | 0 | 0 | 2 | All branches |
| 4. | Sanskrit Language for Engineers | EAN13701 | EAA-B | 2 | 0 | 0 | 2 | All branches |

**B.Tech Course Structure 2nd Year IV Semester**

| Sl.No | Course | Code | Category | L | T | P | Credits | Applicable Branches |
|---|---|---|---|---|---|---|---|---|
| 1. | Management Concepts and Applications | HSN14601 | PCE | 3 | 0 | 0 | 3 | ME, EE, ECE, PIE |
| 2. | Business Economics | HSN14602 | PCE | 3 | 0 | 0 | 3 | Chemical, Civil |
| 3. | Indian Knowledge System | EAN14700 | EAA-B | 2 | 0 | 0 | 2 | All branches |
| 4. | Sanskrit Language for Engineers | EAN14701 | EAA-B | 2 | 0 | 0 | 2 | All branches |

**B.Tech Course Structure 3rd Year VI Semester**

| Sl.No | Course | Code | Category | L | T | P | Credits | Applicable Branches |
|---|---|---|---|---|---|---|---|---|
| 1. | Soft Skills and Personality Development | HSN16603 | PCE | 3 | 0 | 1 | 3 | All |

**B.Tech Course Structure 3rd Year VI Semester**

| Sl.No | Course | Code | Category | L | T | P | Credits | Applicable Branches |
|---|---|---|---|---|---|---|---|---|
| 1. | Business Economics | HSN13602 | PCE | 3 | 0 | 0 | 3 | MED, PIE |

# Minor Specialization

**Title : Entrepreneurship Development**

**Total Credits : 4 Courses of 4 credit each = 16 credits (distributed from Sem IV to Sem VI)**

**Semester IV**

| Sl.No | Course | Code | Category | L | T | P | Credits | Nature of the Paper |
|---|---|---|---|---|---|---|---|---|
| 1. | Entrepreneurship Concept and Development | HSN14250 | Minor Specialization | 4 | 0 | 0 | 4 | Compulsory |

**Semester V**

| Sl.No | Course | Code | Category | L | T | P | Credits | Nature of the Paper |
|---|---|---|---|---|---|---|---|---|
| 1. | Business Environment | HSN15251 | Minor Specialization | 4 | 0 | 0 | 4 | Compulsory |
| 2. | Micro, Small, Medium Enterprises (MSMEs) | HSN15252 | Minor Specialization | 4 | 0 | 0 | 4 | Compulsory |

**Semester VI**

| Sl.No | Course | Code | Category | L | T | P | Credits | Nature of the Paper |
|---|---|---|---|---|---|---|---|---|
| 1. | Social Business Models | HSN16253 | Minor Specialization | 4 | 0 | 0 | 4 | Compulsory |

# Compiled Syllabi

## PROFESSIONAL COMMUNICATION

**(To be run in B.Tech first semester and second semester alternatively)**

**Course Code: HSN11600/HSN12600** **Credits: 3(2L+2P)**

**Pre-requisites:** NIL

**Course Objective:**

The objective of this course is to develop essential language skills required for independent and effective communication for academic and social needs in the under-graduate engineering students.

**Course Outcomes (COs):**

1. Understand the process and aspects of professional/technical communication in an international context.

2. Develop a comprehensive understanding of the extensive vocabulary and usage in formal English language.

3. Develop the competency for oral communication in everyday formal situations.

4. Use the skills and sub-skills of reading and listening.

5. Understand and practice the principles and conventions related to formal writing.

**CO- PO Mapping**

| | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| **PO1** | | | | | |
| **PO2** | | | | | |
| **PO3** | | | | | |
| **PO4** | | | | | |
| **PO5** | | | | | |
| **PO6** | | | | | |
| **PO7** | | | | | |
| **PO8** | | | | | |
| **PO9** | **2** | **1** | **2** | **1** | **1** |
| **PO10** | **3** | **3** | **3** | **2** | **3** |
| **PO11** | **1** | **1** | **1** | **1** | **1** |
| **PO12** | **1** | **1** | **1** | **1** | **1** |

## Course Details:

### Unit I: Introduction to Technical Communication (6L)

Introduction- Definition of Communication, LSRW Skills, Good and Effective Communication, Process of Communication, Purpose of Professional/Technical Communication, Different Forms of Communication-Verbal and Non-verbal Communication, Organizational Communication and Barriers.

### Unit II: Oral Communication (6L)

Common Everyday Situations- Conversations and Dialogues, Communication at Work Place, Professional Presentations- Key Principles in Making Effective Professional Presentations, Structuring a Professional Presentation, Common tools/aids in Presentation.

### Unit III: Interviews and Group Discussion (6L)

**Interviews:** Types, preparation and strategies, positive grooming, frequently asked questions, verbal and non-verbal aspects.
**Group Discussion:** Introduction, types, techniques, Dos and Don'ts in a GD.

### Unit IV: Writing Skills-I (8L)

Basic Writing Skills- Effective Sentences: Role of Acceptability, Appropriateness, Brevity & Clarity in Writing, Cohesion & Coherence in Writing; Words and Style used for Formal and Informal Communication; Converting Informal Language to Formal.

### Unit V: Writing Skills -II (10 L)

Writing for Electronic Media-Letters, E-mails, Blogs, Cover letter, Resume Writing, Nuances of Technical Writing, Technical Reports, Plagiarism- how to avoid plagiarism.

## Lab Component

**List of Exercises:**

**Exercise 1: Grammar and Vocabulary**
Words Similar in Pronunciation- Homonyms and Homophones, Idioms, One Word Substitution, Foreign Expressions; Articles, Prepositions, Subject- Verb Agreement; Sentence Structure, Sentence types, Importance of Proper Punctuation.

**Activity:** Various activities based on grammar and vocabulary.

**Exercise 2: Phonetics**
Introduction to phonetics with the help of IPA/RP (Received pronunciation). Neutralization of mother tongue influence and conversation practice.
**Activity:** Speaking /Vocabulary Drill: With special focus on intonation & common errors in pronunciation.

**Exercise 3: Listening/ Reading Comprehension**

Passage Comprehension- Skimming, Scanning Techniques, Note Making, Note Taking and Summarizing; Analytical and Critical Reading Practice, SQ3R Reading Method. Listening for Gist, Listening for Specific Information, listening to understand the attitude etc. **Activity:** Listening/ Reading Comprehension Exercises.

**Exercise 4: Extempore/ Public Speaking**

The art of public speaking, techniques, strategies and methods.
Activity: Delivering short prepared/impromptu speeches.

**Exercise 5: Group Discussion**

Analysis of sample GDs.
**Activity:** Topic based/ Case based GDs based on current topics.

**Exercise 6: Presentation Skills**

Analysis of Sample Presentations.
**Activity:** Preparing a professional presentation on a topic and delivering it before the audience.

**Exercise 7: Interviews**

Analysis of Sample Interviews

**Activity:** Preparing resume, cover letter, mock interviews.

**Suggested Readings:**


- Hancock, M. (2009). *English Pronunciation in Use*. Cambridge: Cambridge University Press.
- Garner, Bryan A. (2013). *HBR Guide to Better Business Writing*, Boston: Harvard Business Review Press
- Rizvi, M.A. (2005). *Effective Technical Communication*, Tata McGraw-Hill, New Delhi.
- Raman, M and Sangeetha Sharma. (2015). *Technical Communication: Principles and Practice*, OUP.
- Sharma, S and Binod Mishra. (2009). *Communication Skills for Engineers and Scientists (6th Ed.)*, Prentice Hall.
- Wood, F.T. (2007). *Remedial English Grammar*, Macmillan.
- Swan, M. (1995). Practical English Usage. Oxford: OUP.
- Mohanraj, J. (2015). *Let Us Hear Them Speak*. New Delhi: Sage Texts.
- Jones, D. (2012) *English Pronunciation Dictionary (18th ed)*. New Delhi: Cambridge Univ. Press.
- Bansal, R.K and J.B Harrison. (2013). *Spoken English: A Manual of Speech and Phonetics*. New Delhi: Orient Blackswan
- Seely, J (2005). The Oxford Guide to Effective Writing and Speaking. OUP.


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# EAA-A Course

## PROFESSIONAL ETHICS AND SOCIAL VALUES

(To be run in B.Tech first semester and second semester alternatively)

**Subject Code: EAN11700/EAN12700** **Credit: 2 (2L)**

**Course Outcomes (COs):**

1. To enable the students to create an awareness of ethics and human values.
2. To develop moral values, social values and loyalty in students.
3. To understand and appreciate the rights of others.
4. To apply professional ethics in organizations.
5. To apply integrity and honesty in their professionalism.

**Course Objectives:**

1. To enable the students to create an awareness of Professional Ethics and Social Values,
2. To instill Moral and Social Values and Loyalty and to appreciate the rights of others.

### CO- PO Mapping

| | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| **PO1** | **2** | **2** | **2** | **2** | **2** |
| **PO2** | | | | | |
| **PO3** | **1** | **2** | **1** | **2** | **2** |
| **PO4** | | | | | |
| **PO5** | **2** | **2** | **2** | **2** | **2** |
| **PO6** | **2** | **2** | **2** | **2** | **2** |
| **PO7** | **2** | **2** | **2** | **1** | **2** |
| **PO8** | **2** | **2** | **2** | **2** | **2** |
| **PO9** | **2** | **2** | **2** | **2** | **2** |
| **PO10** | | | | | |
| **PO11** | | | | | |
| **PO12** | **2** | **2** | **2** | **2** | **2** |

**UNIT I**

Morals, social values and professional Ethics – Integrity – Work ethic – Service learning – Civic virtue – Respect for others – Living peacefully – Caring – Sharing – Honesty – Courage – Valuing time – Cooperation – Commitment – Empathy – Self-confidence – Character – Spirituality – Introduction to Yoga and meditation for professional excellence and stress Management. Social Work and Societal Expectation: Social work as experimentation – Social workers as responsible experimenters on developing sustainable livelihood Models, Problem solving and rural development Models - Codes of ethics - a balanced outlook on natural law, Policies and Social Expectation

**Unit - II**

Ethical Decision Making, Business Ethics- The Changing Environment and Stakeholder Management, Relevance of Ethics and Values in Business, Spiritual Values Modern Business Ethics and Dilemmas, Overview of Corporate Social Responsibilities (CSR) and Sustainability

**UNIT III**

Senses of 'Social work 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, Life and professional ethics from the lessons of religious literature

**UNIT IV**

Safety and Risk – Assessment of Safety and Risk – Risk Benefit Analysis and Reducing Risk - Respect for Authority – Collective Bargaining – Confidentiality – Conflicts of Interest – Occupational Crime – Professional Rights – Employee Rights – Intellectual Property Rights (IPR) – Discrimination Multinational Corporations – Environmental Ethics – Computer Ethics – Weapons Development – Social Worker as Managers – Consulting Engineers – Engineers as Expert Witnesses and Advisors – Moral Leadership –Code of Conduct

**UNIT V**

Professional ethics of concerned engineering disciplines to be offered by the concerned engineering departments such as ethics in biotechnology, chemical engineering, computer science engineering ,civil engineering, electrical engineering, electronics and communication engineering, mechanical and production engineering

Suggested Readings:


- Mandal – Ethics in business and corporate governance, 2e, McGrawHill
- Agarwal, M. M. 1998 Ethics and Spirituality, Shimla: Indian Institute of Advanced Study
- Charles D. Fleddermann, "Engineering Ethics", Pearson Education / Prentice Hall, New
- Jersey, 2004 (Indian Reprint)

# EAA-B Courses

## Indian Traditional Music (Vocal)

**(To be run in B.Tech first semester and second semester alternatively)**

**Course Code: EAN11701/EAN12701** **Credits: 2 (1L+2P)**

**Course Outcomes:**

1. Enable to understand the various Indian traditional music.
2. Understand the differences and similarities between vocal and instrumental music.
3. Understand the difference between the northern and southern music system.
4. Understand the contribution of eminent artists of Indian classical music.
5. Understand the contribution eminent artists of Prayagraj to the Indian music.

**Course Objectives:**

1. To enhance the knowledge about Indian traditional music.
2. To understand the basics of vocal and instrumental music.
3. To enable students to perform vocal music.

**CO- PO Mapping**

| | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| **PO1** | | | | | |
| **PO2** | | | | | |
| **PO3** | | | | | |
| **PO4** | | | | | |
| **PO5** | | | | | |
| **PO6** | **1** | **1** | **1** | **1** | **1** |
| **PO7** | **2** | **1** | **1** | **1** | **1** |
| **PO8** | | | | | |
| **PO9** | **1** | **1** | **1** | **1** | **1** |
| **PO10** | **1** | **1** | **1** | **1** | **1** |
| **PO11** | | | | | |
| **PO12** | **2** | **2** | **2** | **2** | **2** |

**Syllabus**

**Unit I**

Practical knowledge of Raagas with Drutkhyal/ Razakhani Gat-Kalyan, Bilawal Kafi Khamaj, Asawari, Bhairav, Bhairavi, Poorvi, Marwa, Todi

**Unit II**

FOR VOCAL

Practical knowledge of Bhajan, Geet, Gazal,Kajari, Chaiti, Dadra, Hori

FOR SITAR

Practical knowledge of Playing TWO DHUN in Kafi Raag and khamaj

**Unit III**

A-Brief study of northern and southern music system

B-Science of Music

Brief introduction of Indian music from ancient, medival and modern

**Unit IV**

Brief study of eminent artist of Indian classical music like Pt. Ravi Shankar, Utd. Bismillah Khan, Pt.Kisan Maharaj, Pt.Samta Prasad, Utd Jakir Husain, Pt. Rajan Sajan Mishra, Pt. Siyaram Tiwari, Utd. Bade Ghulam Ali Khan, Pt. Ramchatur Mallick, Pt. VidurMallick,Pt Bheemsen Joshi, Pt Jasraj, Utd. Rahim Fahimuddin Dagar, Utd Zia fariduddin Dagar, Vidushi Girija Devi Acharya Brihaspati, Vidushi Prem latasharm

**Unit V**

Contribution of eminent artist of Prayagraj to the Indian music: - Pt. Bhola Nath Bhatt, Pt. Bhola Nath Prasanna, Pt. Ramashray Jha, Vidushi Geeta Bannerji, Shri Lal Ji Srivastav, Shri Girish Chandra Srivastav, Pt. Nand Kumar Mishra, Shri Shailendra Mishra, Vidushi Kamla Bose, Shri Banwari Lal Srivastav.

Origin of Gharana and its development (Vocal/Sitar) with description of their artist.

Origin and development of Own Instruments: - Tanpura and Sitar.

## Indian Traditional Music (Instrumental)

**(To be run in B.Tech first semester and second semester alternatively)**

**Course Code: EAN11702/EAN12702** **Credits: 2 (1L+2P)**

**Course Outcomes:**

1. Understand basics of music.
2. Understand the Harmonium music instrument and its functioning.
3. Understand the Tabala music instrument and its functioning.
4. Understand the Synthesizer music instrument and its functioning.
5. Enable them to perform instrumental music- Harmonium, Tabala and Synthesizer.

**Course Objectives:**

1. To know and understand music vocal.
2. To gain understanding of various musical instruments.
3. To perform on various musical instruments.

**CO- PO Mapping**

| | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| **PO1** | | | | | |
| **PO2** | | | | | |
| **PO3** | | | | | |
| **PO4** | | | | | |
| **PO5** | | | | | |
| **PO6** | **2** | **1** | **1** | **1** | **1** |
| **PO7** | **2** | **2** | **2** | **2** | **2** |
| **PO8** | **2** | **2** | **2** | **2** | **2** |
| **PO9** | **2** | **2** | **2** | **2** | **2** |
| **PO10** | **2** | **2** | **2** | **2** | **2** |
| **PO11** | | | | | |
| **PO12** | **2** | **2** | **2** | **2** | **2** |

**Syllabus**

**Unit I: INTRODUCTION**

Basic knowledge of musical instruments like tabla, harmomium, synthesizer,

**Unit II: HARMONIUM**

Structural knowledge of Harmonium, Types of Harmoniums, Playing techniques of Harmonium, Description of different Types of Harmonium, Definition of following terms – Sangeet. Naad, Swara, Shruti, Saptak,Alankar, Elementary knowledge of TeenTaal, Keherwa

**Unit III: TABLA**

Importance of Indian Culture & History of Music, Indian Music & Classification of Instruments, Origin of tabla its utility and importance, Study of tabla with well labelled diagram,Different technical terms of tabla and music, Various tals – teental, jhaptal, Kahwasadadra,Notation of Rayada, Mukhana, Tihai etc, Varnas of tabla- Technique, Teental-on tabla,dugun, Kayada, palta, tihai in teental, Kaharwa taal dugum, Prakars of kaharwa, Japtal, Dadra taal, Prakars of dadra, Roopak,dugum, Prakars of roopak, Bole of tot and tirkit etc, Chartal, Teevaratal, Mukhra, tukra in teental, Tabla accompaniment with light music, Padhant of all boles on hand.

**Unit IV: SYNTHESIZER**

Introduction to music, fundamental terms: Swara, Alankar, Chal, swar, Achal Swar, Komal, Shudh, TiwraSwar , Taal: Types of taals, their bits ,Types of ragas & their introduction:

Bhupali, Bhimpalas, Vrundavani, Sarang, Durga, Des, Bageshri, Yaman, Kafi, Khamaj, Bhairav , Special features of each raag such as swar, Aroh, Awroh,Vadiswar, Timeetc, Types of musical instruments on key board ,Vande Mataram ,National Anthem , Special Features of various ragas such as Malkans, Darbari, Kalawati, Bibhas, Kedar, Tilak Kamod Vadi, Sanwadi Swar, Time of singing, Aroh, Awaroh, Chalan and Bandish ,

**Unit V**

Practical and practices of Harmonium and Tabla

Practical and practices of **SYNTHESIZER**

**Suggested reading:**


1. S.S. Paranjape - Bhartiya Sangeet Ka Itihasa
2. S.S. Paranjape - Sangeet Bodh
3. V.N. Bhatkhande - Bhatkhande Sangeet Shastra Part-I-II
4. Swami Prajnananda - History of Indian Music
5. Swami Prajnananda - Historical Study of Indian Music
6. Lalit Kishore Singh - Dhvani Aur Sangeet
7. Govind Rao Rajurkar - Sangeet Shastra Parag
8. Dr. Swatantra Sharma - Fundamentals of Indian Music
9. Dr. Pannalal Madan - Sangeet Shastra Vigyan


# National Service Scheme

**(To be run in B.Tech first semester and second semester alternatively)**

**Course Code: EAN11703/EAN12703** **Credits 2 (1L+2P)**

**Course Outcomes:**

1.Understand the history of NSS, its organization, and benefits of NSS.
2.Understand the concept of national integration and nationalism.
3.Understand the concept of self-awareness and emotional intelligence.
4.Apply the concept of ethical & creative thinking and doing.
5.Analyze the process of decision making & problem solving.
6. Evaluate the concept of team building and its significance in life.

**Course Objectives:**

i. To know about the history of NSS, its organization, and benefits of NSS.
ii. To understand the concept of national integration and nationalism.
iii. To understand the concept of self-awareness and emotional intelligence.
iv. To understand the concept of ethical & creative thinking and doing.

v. To understand the process of decision making & problem solving.
vi. To understand the concept of team building and its significance in life.

## CO- PO Mapping

| | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| **PO1** | | | | | |
| **PO2** | | | | | |
| **PO3** | | | | | |
| **PO4** | | | | | |
| **PO5** | | | | | |
| **PO6** | | | | | |
| **PO7** | **1** | **1** | **1** | **1** | **1** |
| **PO8** | **1** | **1** | **1** | **1** | **1** |
| **PO9** | **2** | **2** | **2** | **2** | **2** |
| **PO10** | **2** | **2** | **2** | **2** | **2** |
| **PO11** | | | | | |
| **PO12** | **1** | **1** | **1** | **1** | **1** |

## Syllabus

### Semester I & II

**Unit I: Preface to National Service Scheme& Basic Concepts Of NSS**

Concern of National Service Scheme
NSS-Basic concepts
Basic concepts and components
NSS Program and activities

**Unit II: Special Camp Program and Administrative Structure**

Special camp program
Scheme and preparation of special camp program
Financial Methodology of expenses related to special camp program
Administrative structure at national level
Administrative structure at state level
Administrative structure at university level
Administrative structure
Advisory committees of NSS

**Unit III: Scheme of program/activities and implementation of NSS programs**

Scheme at state level
Scheme at university level
Scheme at institute level

Scheme of NSS programs
NSS at institute level-structure and administration of NSS unit
Program officer-appointment, duty and work

**Unit IV: NSS Volunteers and their Role**

National service scheme volunteer
At state, university
Administrative aid and implementation of NSS program

**Unit V: Training, Customization, Research and Evaluation and Finance and Accounts**

Training and customization center
Training of program officer and chief personnel
Methodology of financial expenditure
Methodology of financial expenditure
Methodology of financial expenditure at college level
Maintenance of accounts

**Reference:**

https://nss.gov.in/sites/default/files/manualNss2006.pdf

# National Cadet Corps

**Course Code: EAN11704** **Credits: 2 (1L+2P)**

**Course Name: NCC-1**

**Semester: 1**

**Course Objectives:**

To develop the following competencies in the cadets:

i. Know about the history of NCC, its organization, and incentives of NCC for their career prospects.
ii. Acquire knowledge of duties and conduct of NCC cadets.
iii. Understand about different NCC camps and their conducts.
iv. Understand the concept of national integration and its importance.
v. Understand the concept of self-awareness and emotional intelligence.
vi. Understand the concept of critical & creative thinking.
vii. Understand the process of decision making & problem solving.
viii. Understand the concept of team and its functioning.
ix. Understand the concept and importance of social service.
x. Understand that drill as the foundation for discipline and to command a group for common goal.
xi. Understand the importance of a weapon its detailed safety precautions necessary for prevention of accidents.
xii. Develop the concept of various markings on the map and how they are co-related to the ground features.

**Learning Outcome**

After completing this course, the cadets will be able to: -

I. Imbibe the conduct of NCC cadets.

II. Respect the diversity of different Indian culture.
III. Practice togetherness and empathy in all walks of their life.
IV. Do their own self-analysis and will work out to overcome their weakness for better performance in all aspects of life.
V. Understand creative thinking & its components.
VI. Think divergently and will try to break functional fixedness.
VII. Make a team and will work together for achieving the common goals.
VIII. Do the social services on different occasions.
IX. Perform foot drill and follow the different word of command.
X. Fire a weapon effectively with fair degree of marksmanship.
XI. Undertake point to point navigation and take part in route marches by day and night.

## CO- PO Mapping

| | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| **PO1** | | | | | |
| **PO2** | | | | | |
| **PO3** | | | | | |
| **PO4** | | | | | |
| **PO5** | | | | | |
| **PO6** | | | | | |
| **PO7** | **2** | **1** | **1** | **1** | **1** |
| **PO8** | **1** | **1** | **1** | **1** | **1** |
| **PO9** | **2** | **2** | **2** | **2** | **2** |
| **PO10** | **2** | **2** | **2** | **2** | **2** |
| **PO11** | | | | | |
| **PO12** | **2** | **2** | **2** | **2** | **2** |

## Syllabus

**Unit 1- NCC General** (Contact Hrs. 06):
Introduction of NCC, History, Aims, Objective of NCC & NCC as Organization, Incentives of NCC, Duties of NCC Cadet. NCC Camps: Types & Conduct. Introduction to Weapons.

**Unit 2- National Integration & Awareness** (Contact Hrs. 04):
National Integration: Importance & Necessity, Factors Affecting National Integration, Unity in Diversity & Role of NCC in Nation Building, Threats to National Security.

**Unit 3- Personality Development and Drill** (Contact Hrs. 12):
Intra & Interpersonal skills - Self-Awareness- & Analysis, Empathy, Critical & creative thinking, Decision making and problem solving.
Foot Drill- Drill ki Aam Hidayaten, Word ki Command, Savdhan, Vishram, Aram Se, Murdna, Kadvar Sizing, Teen Line Banana, Khuli Line, Nikat Line, Khade Khade Salute Karna Parade Par, Visarjan, Line Tod, TejChal, Tham aur DhireChal, Tham.

**Unit 4- Map Reading** (Contact Hrs. 04).
Definition of Map, Conventional signs, Scale and Grid System, Topographical forms and technical terms, Relief, Contours and gradients, Cardinal points and types of North, Magnetic Variation and Grid Convergence.

**Unit 5- Social Service and Community Development** (Contact Hrs. 10).
Basics of social service and its need, Types of social service activities, Objectives of rural development programs and its importance, NGO's and their contribution in social welfare, contribution of youth and NCC in Social welfare. Cadets will participate in various activities throughout the semester e.g., Blood donation Camp, Swachhata Abhiyan, Beti Bachao Beti Padhao, Tree Plantation Drives, Anti-tobacco Rallies, Anti-Dowry Drive, Pandemic Mgmt. etc.

## NCC Syllabus

**Course Code: EAN12705** **Credits: 2 (1L+2P)**

**Semester: 2**

### Course Name: NCC-2

**Course Objectives:**
To develop the following competencies in the cadets:

i. Understand the thinking & reasoning process.
ii. Understand the importance of improving communication skills.
iii. Understand about different NCC camps and their conducts.
iv. Identify the leadership traits.
v. Admire the qualities of great leaders.
vi. Understand & spread awareness about latest Government initiatives for welfare of citizens and contribute towards Nation building.
vii. Know about different legal provisions for children & women safety and protection.
viii. Understand the importance of a weapon, and detailed safety precautions necessary for prevention of accidents.
ix. Use terrain effectively for concealment, camouflage, indicate landmarks and give field signals.

**Learning Outcome**
After completing this course, the cadets will be able to: -

i. Define thinking, reasoning, critical thinking and creative thinking.
ii. To think critically about different life related issues.
iii. To think divergently and will try to break functional fixedness.
iv. Apply creative and critical thinking in their real-life problems.
v. Understand the organizations related to disaster management and their functioning.
vi. Respect and help women and children and feel connected with social problems
vii. Perform foot drill gracefully.
viii. Give and follow the different word of command.
ix. Fire a weapon effectively with fair degree of marksmanship.

x. Use of bearing and service protractor and locate the places and objects on the ground.

## CO- PO Mapping

| | CO1 | CO2 | CO3 | CO4 | CO5 |
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| **PO1** | | | | | |
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| **PO7** | **1** | **1** | **1** | **1** | **1** |
| **PO8** | **2** | **2** | **2** | **2** | **2** |
| **PO9** | **2** | **2** | **2** | **2** | **2** |
| **PO10** | **2** | **2** | **2** | **2** | **2** |
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| **PO12** | **1** | **1** | **1** | **1** | **1** |

## Syllabus

**Unit 1- Personality Development** (Contact Hrs.5):
Thinking- Meaning and Concept of thinking, Reasoning, Process of thinking, Critical Thinking- Meaning & concept of critical thinking, Features of critical thinking, Process of critical thinking. Creative thinking- Meaning & concept of creative thinking, Features of creative thinking, Process of creative thinking, levels of Creativity, Characteristics of creative person.

**Unit 2- Drill** (Contact Hrs. 12):
Foot Drill Dahine, Baen, Aageaur Piche Kadam Lena. TejChal se Murdna, TejChal se Salute Karna, Tej Kadam Taal aur Tham, Tej Kadam Taal se Kadam Badalna. Teeno Teen se Ek File aur ek file se Teeno Teen Banana.

**Unit 3- Leadership** (Contact Hrs. 05):
Leadership capsule. Important Leadership traits, Indicators of leadership and evaluation. Motivation- Meaning & concept, Types of motivation. Factors affecting motivation. Ethics and Honor codes.

**Unit 4- Map Reading** (Contact Hrs. 04):
Protractor Bearing and its conversion methods. Service protractor and its uses. Prismatic compass and its uses and GPS. Navigation by compass and GPS.

**Unit 5- Social Service and Community Development** (Contact Hrs. 10)**:**
Cadets will participate in various activities throughout the semester e.g., Awareness regarding Protection of Children & Women Safety, Road/Rail Safety, New Government Initiatives, Cyber and mobile Security Awareness, Blood donation Camp, Swachhata Abhiyan, Constitution Day, Jan Jeevan Hariyali Abhiyan, Beti Bachao Beti Padhao etc. as per the requirement and similar announced days- National and state level.

# MANAGEMENT CONCEPTS AND APPLICATIONS

**(To be run in B.Tech III semester and IV semester alternatively)**

**Course Code: HSN13601 /HSN14601** **Credit: 3 (3L)**

**Course Objective:**

Management concept and application is very useful subject to engineering student as this subject make them enable to understand the organization work culture. This will be also helpful to them in their development of decision-making abilities. Work management and stress-free work environment can be developed if an engineer knew the various dimensions of management.

**Course Outcomes (COs):**

1. To understand the management concepts and its application with the help of case studies.
2. To understand various functional dimensions of management in the business organizations.
3. To identify and apply the steps involved in the professional decision making.
4. To apply managerial concepts in the professional decision making.
5. To solve case scenarios of real situations in the day-to-day activities.

**CO- PO Mapping**

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| **PO9** | **1** | **2** | **2** | **2** | **2** |
| **PO10** | **1** | **2** | **2** | **2** | **2** |
| **PO11** | **1** | **2** | **2** | **2** | **2** |
| **PO12** | **1** | **2** | **2** | **2** | **2** |

**Course Details:**

**Unit I: Introduction and Development of Management Approaches**

Concept and definition of management, Various ways to understand the management, function of Managers, managerial skill, Role of managers, Functional areas of management, Principles of management, Management Vs. Administration. Approaches to management, Classical theories, Management process approach, Bureaucracy Approach, Neo-classical approach,

Behavioral Sciences Approach, System Approach, Contingency Approach, Functions of Management.

**Unit II: Planning**

Nature and Definition of planning, Benefits of planning, Principles of planning, Kind of planning, steps in planning, Standing and single use planning, corporate planning and strategy formulation, Management by Objective, Management by Exception, Planning premises.

**Unit III: Organizing**

Concept and definition of Organization, Organization structure, Principles of organization, Form of organization, Departmentation, Formal and informal organization, Organizational culture and conflict management.

**Unit IV: Direction**

Concept and definition of direction, principles of direction, supervision and its significance, Leadership, Motivation, Communication and Coordination.

**Unit V: Control and other Managerial Practices**

Concept and definition of control, characteristics and principles of control, Control techniques, Budgetary Control, Change Management, Stress management, Emerging challenges in Management, Case Studies and Social Entrepreneurship.

**Suggested Readings:**


- VSP RAO-Managing Organization (EXCEL 1 EDITION)
- Chaturvedi& Saxena -Managing Organization (Himalaya Publication)
- Stoner, Freeman & Gilbert Jr - Management (Prentice Hall of India)
- 4 Robbins-Organization Behavior -15 e Prentice Hall
- Koontz Harold &Weihrich Heinz – Essentials of management
- T.N. Chhabra- Principles and Practices of Management, (Dhanpat Rai & Co.)
- Luthans Fred - Organizational Behaviour (Tata Mc Graw Hill)
- Mc Shane L. Steven, Glinow Mary Ann Von & Sharma Radha R. - Organizational Behaviour (Tata Mc Graw Hill)


***Note:*** **Applicable Branches for SEM III :** Biotech, Chemical, Civil

**Applicable Branches for SEM IV :** ME, EE, ECE, PIE

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# BUSINESS ECONOMICS

**Course Code: HSN13602/ HSN14602** **Credit: 3 (3L)**

**Introduction:**

In today's changing environment knowledge of Economics and Finance is indispensable and is required to be updated. The inculcation of the managerial skills for taking decisions in the areas of Financial and Economic affairs is of utmost importance and therefore the emphasis is on teaching of Business Economics and Finance for the overall intellectual and social development of the student. This education intends to expand the student's horizon of knowledge by exposing them to areas of study which makes them sensitive to a wide range of economic and financial problems and phenomena. Such a holistic education is hoped to enable them appreciate their role in national reconstruction by responding to the challenges of the time.

**Course Outcomes (COs):**

1. Understand the importance of Business Economics and Finance.
2. Know how the application of the principles of economics and finance can aid in achievement of business objectives.
3. Understand the modern business decision rules and optimization techniques.
4. To scan the business environment prevailing in the economy.
5. To apply economic concept and financial awareness in the professional decision making.

**CO- PO Mapping**

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| **PO8** | **1** | **1** | **1** | **1** | **1** |
| **PO9** | **1** | **1** | **1** | **1** | **1** |
| **PO10** | **2** | **2** | **2** | **2** | **2** |
| **PO11** | **2** | **2** | **2** | **2** | **2** |
| **PO12** | **1** | **1** | **1** | **1** | **1** |

## Course Details:

### Unit I: Introduction to Business Economics

Basic Concepts and principles: Definition, Nature and Scope of Economics-Micro Economics and Macro Economics, Managerial Economics and its relevance in business decisions. Fundamental Principles of Managerial Economics - Incremental Principle, Marginal Principle, Opportunity Cost Principle, Discounting Principle, Concept of Time Perspective, Equi-Marginal Principle, Utility Analysis, Cardinal Utility and Ordinal Utility, Objectives of a firm, Profit Theories, Government initiative for promoting startups.

### Unit II: Demand & Supply

**Demand Analysis:** Theory of Demand, Types of Demand. Determinants of demand, Demand Function, Demand Schedule, Demand curve, Law of Demand, Exceptions to the law of Demand, Shifts in demand curve, Elasticity of Demand and its measurement. Price Elasticity, Income Elasticity, Arc Elasticity. Cross Elasticity and Advertising Elasticity. Uses of Elasticity of Demand for managerial decision making, Demand forecasting meaning, significance and methods. (Numerical Exercises)

### Unit III: Production & Cost

**Production concepts and analysis:** Production function, Types of production function, Laws of production: Law of diminishing returns, Law of returns to scale.
**Cost concept and analysis:** Types of costs, Cost output relationship in the short-run. Cost output relationship in the Long-run.

### Unit IV: Revenue & Market Structure

**Revenue Concepts:** Estimation of revenue, Average Revenue, Marginal Revenue. Market Equilibrium and Average Revenue Concept.

**Market Structure**: Perfect and Imperfect Market Structures, Perfect Competition, features, determination of price under perfect competition. Monopoly: Feature, pricing under monopoly, Price Discrimination. Monopolistic: Features, pricing under monopolistic competition, product differentiation. Oligopoly: Features, kinked demand curve, cartels, price leadership.

### Unit V: Financing to Startups

Make in India, Government support and initiatives, crowd funding, angel financing, boot stepping, government organizations, preparation of business models, corporate social responsibility, Case study on MSME.

### Suggested Readings:


- Managerial Economics, D.N. Dwivedi, Vikas Publication, 7th Ed

- Managerial Economics: Concepts and Applications (SIE), THOMAS& MAURICE, McGraw-Hill Education, 9th Ed
- Managerial Economics, H. L Ahuja, S. Chand, 8th Ed
- Managerial Economics – Theory and Applications, Dr. D.M. Mithani, Himalaya Publications, 7th Ed.
- Khan and Jain - Financial Management (Tata McGraw Hill, 7th Ed.)
- Pandey I M - Financial Management (Vikas, 11th Ed.)
- Fundamentals to Financial Management, Brigham & Houston, 14/e, Cengage Learning
- Van Horne - Financial Management and Policy (Prentice Hall, 2003, 12th Ed.)


***Note:***

**Applicable Branches for SEM III :** EE, ECE

**Applicable Branches for SEM IV :** Chemical, Civil

**Applicable Branches for SEM VII:** MED, PIE

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# EAA-B Courses

## Indian Knowledge System

**Course Code: EAN13700/EAN14700** **Credits: 2 (2L)**

**CO- PO Mapping**

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## Syllabus

**Unit I: Indian Literatures**

Vedas, Upanishad, Bhagavad Gita, Jainism, Buddhism, Sufism and other key literatures.

**Unit II: Indian Festivals**

Holi, Raksha Bandhan, Pongal, Onam, Lohri, Baisakhi, Bihu, Janmashtami, Rath Yatra, Ganesh Chaturthi, Eid UlFitra, Navratri, Durga Puja, Dussehra, Deepawali, Kali Puja, Christmas etc.

**Unit III: Indian Culture & Biodiversity**

Culture and civilization, cultural traits, cultural complex, cultural pattern and culture area, Indian languages, Vedic culture, Indus valley civilization, relationship of culture and society, cultural diversity and unity, National Integration. Genetic diversity, species diversity, physical features of Indian subcontinent, ecosystem diversity, loss of biodiversity, conservation of biodiversity.

**Unit IV: Epics of India**

Contributions of extraordinary persons, lessons from Ramayana, Mahabharat, Arthshastra etc.

**Unit V: Indian Architecture, Traditional Skills, and Sculpture**

Design, structure, material and engineering of historic Indian monuments, traditional skills such as handicraft, pottery, archery etc. Indian sculptures like Qutub Minar, Ajanta and Ellora caves, Red Fort, Taj Mahal, Dilwara temple, Kangra Fort etc. Ancient Indian Metallurgy: Ancient Indian Glass Technology, copper, gold, iron metallurgy.

**Suggested Readings:**


1. Anjana Neira Dev, Bajrang Bihari Tiwari and Sanam Khanna. Indian Literature: An Introduction. Pearson Education.
2. Sonia Mehta. Discover India: Festivals of India. Penguin Books India Pvt. Ltd.
3. K.V. Krishnamurthy. An advanced textbook on Biodiversity. Principles and Practice. Oxford and IBH publishing company. New Delhi.
4. S. SrikantaSastri. Indian Culture: A Compendium of Indian History, Culture and Heritage. Notion Press.
5. Dinkar Joshi and Yogesh Patel. Glimpses of Indian Culture. Star Publications Pvt Ltd. New Delhi.
6. H.C. Bhardwaj. Aspects of Ancient Indian Technology. Motilal Banarsidass publisher.


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# EAA-B Courses

## Sanskrit Language for Engineers

**Course Code: EAN13701/EAN14701** **Credits: 2 (2L)**

**CO- PO Mapping**

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## Syllabus

**Unit: I**

**Introduction to Sanskrit as Language & Literature**

Devanagiri lipi : Swar and Vyanjan, Sentence formation: Sandhi, Samas, Sentence formation: Sandhi, Samas, Puran , Upnishad, Brahmana, Bhagavad Gita etc.

**Unit: II**

**Introductory Vedic Mathematics**

Illustrations from book Vedic Mathematics written by Bharati Krishna Teertha ji, (published by MLBD) –Calculation pi, square root finding, Philosophical meanings of zero and one

**Unit: III**

**Chemistry and Physical and Environmental Sciences in Vedic Literature**

Illustrations from Rajmrigaanka Karnam and Surya Siddhanta, Lesson from Charak Samhita on Vyayayaama and Ashtang hridayam

**Unit: IV**

**Socio- Economic and Political Principles & Sanskrit literature for Engineers**

Lessons from Artha shastra and Valmiki Ramayana, Lessons from Mayamatam, Narada Shilpa shastra, samragan sutradhar.

**Unit: V**

**Modern Age Possibilities: Sanskrit for ICT**

Paper by Subhash Kak and Saroja Bhate Panini's Grammar and Computer Science.

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# SOFT SKILLS AND PERSONALITY DEVELOPMENT

**Course Code: HSN16603** **Credit: 3 (2L+1P)**

**Course Objective:** This course aims to cause a basic awareness about the significance of soft skills in professional and inter-personal communications and facilitate an all-round development of personality. Technical skill can help secure a basic position in one's life and career but only soft skills can ensure a person retain it, climb further, reach a pinnacle, achieve excellence, and derive fulfillment and ecstasy. Soft skills comprise pleasant and appealing personality traits as self-confidence, positive attitude, emotional intelligence, social grace, flexibility, friendliness and effective communication skills. This particular course offers all the tricks and traits to develop soft skills and groom one's personality in a way that can help achieve the desired goals in life.

**Course Outcomes (COs):**

1. Understand the significance of soft skills and personality development.
2. Communicate effectively through soft skills and improve the listening skills.
3. Enable them to actively participate in group discussion, meetings, interviews and prepare and deliver presentations.
4. Learn the techniques to improve soft skills and personality.
5. Enable them to understand themselves and evaluate the individual's personality.

**CO- PO Mapping**

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## Course Content:

**UNIT I: Introduction to Soft Skills and its Significance**

Introduction of soft skill, significance of soft skill, Behavioural Approaches to Enhance Communication Skills, types of soft skills, Positive Thinking and Negotiation Skills.

**Unit II: Personality Improvement and its techniques**

Time Management and its Relevance, Interpersonal Skills and Group Behaviour, Change and Conflict Management, Identification of Self and Self Esteem, Mindfulness and Quality of Work Life.

**Unit III: Personality Evaluation and Enhancement**

Managing Emotions and its Relevance in Personality Development, Life Management with Success and Failure, Personality and Social Skills Development, 7 C s of Communication and Personality Development

**Unit IV: Information and Communication Technology Skills**

Understanding the technology for effective communication, contemporary use of technology, technology and personality development, limitations in technology for communication.

**Unit V: Activities for Soft Skills and Personality Development**

Professional Etiquettes and Work-Life Management, Stress Management and Coping Strategies, Personal Efficiency and its Effectiveness, Professional Ethics and its Role in Personality Development, Developing Leadership Skills through Soft Skill and Personality Development.

**Books and References:**


1. Dorch, Patricia. *What Are Soft Skills?* New York: Execu Dress Publisher,2013
2. Klaus, Peggy, Jane Rohman & Molly Hamaker. *The Hard Truth About Soft Skills.* London: HarperCollins E-books,2007.


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**Minor Specialization: Entrepreneurship Development**

**Semester IV**

## ENTREPRENEURSHIP CONCEPT AND DEVELOPMENT

**Course Code: HSN14250** **Credit: 4 (4L)**

**Course Objectives:**

This course examines successful strategies, business models, frameworks, funding, barriers and risks for introducing break-through products and services. Students will develop skills and insights for evaluating, articulating, refining, and pitching a new product or service, either as a start-up business or a new initiative within an existing firm. The course is appropriate for all students interested in innovation and design as necessary components of new businesses today.

**Course Outcomes (COs):**

1. Understand the need, importance and environment of entrepreneurship.
2. Understand various resources and policies for entrepreneurship.
3. Solve case scenarios of success and failure in the entrepreneurship.
4. Identify motivational dimensions and requisite skills of entrepreneurship.
5. Handle project management for entrepreneurship.

**CO- PO Mapping**

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## Course Details:

**Unit I: Introduction:**

Concept and Need of Entrepreneurship, Entrepreneurship fundamentals, Definition of Entrepreneur, growth of entrepreneurship, Role of entrepreneur in national economy, Entrepreneurship, Innovation, Invention, Creativity, Business Idea, Opportunities through change. Concepts of Entrepreneur, Manager, Intrapreneur / Corporate Entrepreneur – comparative study - Roles, Responsibilities, Career opportunities. Entrepreneurship as a career, Entrepreneurship as a style of management, the changing role of the entrepreneur: mid-career dilemmas – Closing the window: Sustaining Competitiveness - Maintaining competitive advantage.

**Unit II: Innovation, Entrepreneurship, and Business Transformation:**

Creating new businesses, Innovations a core competence, managing for innovation; "Design Thinking", capturing new markets, enhancing organizational effectiveness occur through innovation, transforming processes -or both. New technologies, processes, competition and globalization compel entrepreneurs and existing firms to distance from the familiar and foster innovation and agility, successful strategies, business models, frameworks, funding, barriers and risks for introducing break-through products and services. Business model innovation, strategic leadership, human cantered and design-driven innovation, knowledge and change management Goals.

**Unit III: Rules for Strategic Innovators**

Reengineering the Corporation, How to Change Things When Change is Hard, significant effort and form of a business plan, commercialization of a scientific discovery, exploring innovation &creativity, Understanding Digital technologies, Creating and selling differentiated products/services, Marketing Malpractice, Business Model Innovation, Understanding Customers, Growth strategies; Mass Challenge, Business Plan Presentations, Embedding innovation and execution, Just in Time Strategy, What Really Works", Innovation Isn't the Answer to All Your Problems; Business Plan Presentations

**Unit IV: Business Policy and project preparation:**

Various business policies related to enterprise development, project identification and selection, project formulation, project appraisal, financing of enterprise, Venture Capital financing, Ownership structure

**Unit V: Case Study**

Case study of an enterprise transformation initiative

**Suggested Readings:**

- Mauborgne, René, Blue Ocean Strategy (Expanded Edition), Boston: Harvard Business School Press;2015. ISBN:978-1-59139-619-2.
- Schrage, Michael, The Innovator's Hypothesis, Boston: MIT Press; 2014. ISBN: 978-0-262-02836-3.3. Westerman et al., Leading Digital, Boston:Harvard Business School Press;2014.ISBN 9781625272478.Required articles(available with discount at https://cb.hbsp.harvard.edu/cbmp/access/38140503
- Drucker, Peter "Discipline of Innovation" (available at www.hbsp.org)
- Iansiti& Lakhani, "Digital Ubiquity" (available at www.hbsp.org)
- Christensen et al.: "Marketing Malpractice" (available at www.hbsp.org)4.Nohria, Joyce, "What Really Works" (available at www.hbsp.org)
- Anthony, Scott et al.: "Innovation Isn't the Answer to All Your Problems" (available at https://hbr.org/2013/07/innovation-isnt-an-idea-proble)-Hand-outs and other materials as assigned.

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**Semester V**

## BUSINESS ENVIRONMENT

**Course Code: HSN15251** **Credit: 4 (4L)**

**Introduction:**

Business Environment or market environment is the sum of all individuals, entities, and other factors that have bearing on the business. It is divided into two categories; Internal Environment, and External Environment. Business Environment can be defined as a collection of all internal and external factors such as employees, customers' needs and expectations, supply and demand, suppliers, government policies, technological and market trends.

**Course Outcomes (COs):**

1. Outline various components of Business Environment.
2. Recognize, distinguish, paraphrase, and explain the impact of business environment on business activities.
3. Apply the knowledge to analyze the current situations and take prudent decisions.
4. Identify, distinguish and present the various facts and uniqueness of the any component of the business environment.

**CO- PO Mapping**

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| **PO1** | | | | | |
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| **PO7** | **1** | **1** | **1** | **1** | **1** |
| **PO8** | **2** | **1** | **1** | **1** | **1** |
| **PO9** | **2** | **2** | **2** | **2** | **2** |
| **PO10** | **2** | **2** | **2** | **2** | **2** |
| **PO11** | **1** | **1** | **1** | **1** | **1** |
| **PO12** | **2** | **2** | **2** | **2** | **2** |

**Course Details:**

**Unit I: An Overview of Business Environment:**

Type of Environment - internal, external, micro and macro environment. Competitive structure of industries, Environmental analysis and strategic management. Managing diversity. Scope of business, characteristics of business. Objectives and the uses of study. Process and limitations of environmental analysis.

**Unit II: Economic Environment:**

Nature of Economic Environment. Economic factors-growth strategy, basic economic system, economic planning, Economic policies- new industrial policy, FEMA, Monetary and fiscal policies. Consumer Protection Act and Competition Law. Liberalization, Privatization and Globalization of Indian Economy, Trends and Issues.

**Unit III: Socio-Cultural Environment:**

Nature and impact of culture on business, culture and globalization, social responsibilities of business, social audit, business ethics and corporate governance, Demographic environment population size, migration and ethnic aspects, birth rate, death rate and age structure.

**Unit IV: Political Environment:**

Functions of state, economic roles of government, government and legal environment. The constitutional environment, rationale and extent of state intervention.

**Unit V: Natural and Technological Environment:**

Innovation, technological leadership and followership, sources of technological dynamics, impact of technology on globalization, transfer of technology, time lags in technology introduction, Status of technology in India; Management of technology; Features and Impact of technology.

**References:**


- Rangarajan, C.A.; Perspective in Economics, S.Chand & Sons, New Delhi
- Cherunilam, Francis; Business Environment - Text and Cases, Himalaya Publishing House.
- Aswathappa, K.; Essentials of Business Environment, Himalaya Publishing House, New Delhi.
- Justin Paul, Business Environment Text and Cases, 3e TMH.
- Shaik Saleem, Business Environment, 2E, Pearson, 2010
- Fernando, Business Environment, IE, Pearson, 2011
- Misra S. K & Puri V. K, Economic Environment of Business, 6E, Himalaya publishing house, 2010.


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## MICRO, SMALL AND MEDIUM ENTERPRISES (MSMEs)

**Course Code: HSN15252** **Credit: 4 (4L)**

**Course Objectives:**

To understand the setting up and management of MSMEs and initiatives of Government and other institutions support for growth and development of MSMEs.

**Course Outcomes (COs):**

1. Explain basic concepts and challenges of MSMEs.
2. Outline the opportunities to set up Start-Up units and role of rural & women entrepreneurship.
3. Illustrate roles of various institutions supporting MSMEs.
4. Understand the management of MSME, NPA & sickness in units.
5. Evaluate role of Government in Promoting Entrepreneurship

**CO- PO Mapping**

| | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PO1 | | | | | |
| PO2 | | | | | |
| PO3 | | | | | |

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|---|---|---|---|---|---|
| **PO4** | | | | | |
| **PO5** | | | | | |
| **PO6** | **1** | **1** | **1** | **1** | **1** |
| **PO7** | **1** | **1** | **1** | **1** | **1** |
| **PO8** | **2** | **2** | **2** | **2** | **2** |
| **PO9** | **1** | **2** | **2** | **2** | **2** |
| **PO10** | **1** | **1** | **1** | **1** | **1** |
| **PO11** | **2** | **2** | **2** | **2** | **2** |
| **PO12** | **2** | **2** | **2** | **2** | **2** |

## Course Details:

**Unit I: Introduction for Micro, Small and Medium Enterprises (MSMEs):**

Concept & Definition, Role of Business in the modern Indian Economy, MSMEs in India, Employment and Export opportunities in MSMEs. Issues and challenges of MSMEs

**Unit II: Setting of MSMEs:**

Identifying the Business opportunity, Business opportunities in various sectors, formalities for setting up an enterprise - Location of Enterprise - steps in setting up an enterprise, Environmental aspects in setting up, Incentives and subsidies, Rural Entrepreneurship, Women Entrepreneurship.

**Unit III: Institutions supporting MSMEs:**

Forms of Financial support, Long term and Short term financial support, Sources of Financial support, Development of Financial and Investment Institutions, Central and State level Institutions, Other agencies, Commercial Bank – Appraisal of Bank for loans. Institutional aids for Entrepreneurship Development – Role of DST, SIDCO, NSIC, IRCI, NIDC, SIDBI, SISI, SIPCOT, Entrepreneurial Guidance Bureaus.

**Unit IV: Management of MSMEs:**

Management of Product Line, Communication with clients – Credit Monitoring System, Management of NPAs - Restructuring, Revival and Rehabilitation of MSME, Problems of entrepreneurs – sickness in SMI - Reasons and remedies - Evaluating entrepreneurial performance**.**

**Unit V: Role of Government in promoting Entrepreneurship:**

MSME policy in India, Agencies for Policy Formulation and Implementation: District Industries Centers (DIC), Small Industries Service Institute (SISI), Entrepreneurship Development Institute of India (EDII), National Institute of Entrepreneurship & Small Business Development (NIESBUD), National Entrepreneurship Development Board (NEDB)-objectives. Government Schemes from MSME - Subsidies Support on ISO Certification & skills upgradation- Special Benefits of imports and exports-state government support on Industrial Infrastructure - GST and its exemptions.

**References:**


- Poornima M Charanthimath, Entrepreneurship Development Small Business Enterprises, Pearson,3e, 2019.
- Vasant Desai, Small Scale Industries and Entrepreneurship, Himalaya Publishing House, 2003.
- Paul Burns and Jim Dew Hunt, Small Business Entrepreneurship, Palgrave Macmillan publishers, 2010.
- Suman Kalyan Chaudhury, Micro Small and Medium Enterprises in India Hardcover, Raj Publications, 2013.
- Aneet Monika Agarwal, Small and medium enterprises in transitional economies, challenges and opportunities, DEEP and DEEP Publications.
- S.S. Khanka, Entrepreneurial Development, S. Chand, 2017
- Norman H Scarborough, Jeffrey R. Cornwall, Essentials of Entrepreneurship and Small Business Management, Pearson, 2017.


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**Semester VI**

## SOCIAL BUSINESS MODELS

**Course Code: HSN16253** **Credit: 4 (4L)**

**Course Objectives:**

The main objective of this course is to enable the engineering students about the broad and sensitive perspective of Social Business Models working as organisations for social issues and associated business. This will help them in development of approaches for enhancing income and social responsibility.

**Course Outcomes (COs):**

1.Understand the concepts and significance of social business models.
2. Understand the various functions of social business models.
3. Solve various case scenarios related to social business models.
4. Understand the contemporary theories and practices in social business models.
5. Apply the strategies for improving the social business models.

**CO- PO Mapping**

| | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PO1 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **PO2** | | | | | |
| **PO3** | | | | | |
| **PO4** | | | | | |
| **PO5** | | | | | |
| **PO6** | **1** | **1** | **1** | **1** | **1** |
| **PO7** | **2** | **2** | **2** | **2** | **2** |
| **PO8** | **2** | **2** | **2** | **2** | **2** |
| **PO9** | **1** | **1** | **1** | **1** | **1** |
| **PO10** | **2** | **2** | **2** | **2** | **2** |
| **PO11** | **2** | **2** | **2** | **2** | **2** |
| **PO12** | **2** | **2** | **2** | **2** | **2** |

## Course Details:

**UNIT I: Introduction to Social business models**

Meaning, Nature and Scope, Difference between social business models and commercial business models, social business functions and its objectives, Development of social business models, significance of social business models towards society.

**UNIT II: Social business models in India**

Micro-finance delivery models, dabba waala distribution model, sewa, Chipko movement, cooperative movement, Environment protection initiatives for sustainable development goals (SDG).

**UNIT III: Gandhian Approach for Socio-economic development**

Welfare economics, Gram Swaraj Approach, Bread Labour approach, Wantless Approach for Sustainability, Eco-friendly approach for social business development model.

**UNIT IV: International Approach of Social Business Models**

Mohammed Yunus Model, International Community Development Agencies, Red Cross Initiatives for Society, WHO, UNO, UNICEF, Bill Gates Melinda Foundation etc.

**UNIT V: Contemporary Approaches in Social Business.**

Organic Farming, Agripreuneurship and Social Business Development, Handicraft and Social Business Development, Unorganised Sector Development, Role of Gig Economy.
Case Study on Relevant Themes.

**Suggested Readings**:


- Biswajeet Pattanayak, Human Resource Mnagement, PHI
- Dr. Ravindra Tripathi, Prof, Sunit Singh and Dr. Rewa Singh. Micro-finance: Managing Process for Better Outreach. GBPSSI, Allahabad.
- Mohammed Yunus. Building Social Business: The New Kind of Capitalism. Perseus Books Group.
- Dr. Rajesh Kumar Shastri and Dr. Ravindra Tripathi. Rural Development. Excel India Publication (Edited Book).
- Kristian J. Sund and et.al. Business Model and Cognition, Emerald Publishing Ltd.


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