

Scheme & Syllabus of Bachelor of Tourism and Travel Management (BTTM)

Batch 2018 onwards



By

Board of Study HMCT

Department of Academics

IK Gujral Punjab Technical University

**IK Gujral Punjab Technical University
BTTM Batch 2018 onwards**

Bachelors of Tourism and Travel Management (BTTM):

It is an Under Graduate (UG) Programme of 4 years duration (8 semesters)

Eligibility for Admission:10+2 Pass in any Stream.

Courses & Examination Scheme:

First Semester

Hrs. 28

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
BTTM101-18	CORE	Tourism: Concept, Status and Trends	3	1	0	40	60	100	4
BTTM102-18	CORE	Geography for Tourism	3	1	0	40	60	100	4
BTTM103-18	CORE	Indian Society and Culture	3	1	0	40	60	100	4
BTTM104-18	CORE	Computer Operations	3	1	0	40	60	100	4
BTTM105-18	CORE	Introduction to Hospitality Industry	3	1	0	40	60	100	4
BTHU103-18	Ability Enhancement Compulsory Course (AECC)-I	English	1	0	0	40	60	100	1
BTHU104-18	Ability Enhancement Compulsory Course (AECC)	English Practical/Laboratory	0	0	2	30	20	50	1
HVPE101-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules	3	0	0	40	60	100	3
HVPE102-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules (Lab/ Seminar)	0	0	1	25	--**	25	1
BMPD102-18		Mentoring and Professional Development	0	0	1	25	--**	25	1
	TOTAL		19	5	4	360	440	800	27

*A course can either have four Hrs Lecture or Three Hrs Lecture + One Hrs Tutorial as per requirement

**The Human Values, De-addiction and Traffic Rules (Lab/ Seminar) and Mentoring and Professional Development course will have internal evaluation only.

**IK Gujral Punjab Technical University
BTTM Batch 2018 onwards**

Second Semester

Hrs. 23

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
BTTM201-18	CORE	Components of Tourism	3	1	0	40	60	100	4
BTTM202-18	CORE	Tourism Products of India : Punjab and Chandigarh Region	3	1	0	40	60	100	4
BTTM203-18	CORE	Tourism Products of India : Art and Architecture	3	1	0	40	60	100	4
BTTM204-18	CORE	Tourism Product of India : Nature Based	3	1	0	40	60	100	4
BTTM-XXX	Elective	Elective-I	3	1	0	40	60	100	4
EVS102-18	Ability Enhancement Compulsory Course (AECC) -III	Environmental Science	2	0	0	40	60	100	2
BMPD202-18		Mentoring and Professional Development	0	0	1	25	--	25	1
TOTAL			17	5	1	265	360	625	23

*A course can either have four Hrs Lecture or Three Hrs Lecture + One Hrs Tutorial as per requirement

Third Semester

Hrs. 27

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
BTTM301-18	CORE	Travel Agency and Tour Operations	3	1	0	40	60	100	4
BTTM302-18	CORE	Principles of Management	3	1	0	40	60	100	4
BTTM303-18	CORE	Essential of Tour Guiding	3	1	0	40	60	100	4
BTTM304-18	CORE	Introduction to Event Management	3	0	0	40	60	100	3
BTTM305-18	CORE	Tourism Impacts	3	1	0	40	60	100	4
BTTM306-18	CORE	Tourism Product of India : Cultural Heritage	3	1	0	40	60	100	4
BTTM-XXX	Elective	Elective-II	2	1	0	40	60	100	3
BMPD302-18		Mentoring and Professional Development	0	0	1	25	--	25	1
TOTAL			20	6	1	305	420	725	27

*A course can either have four Hrs Lecture or Three Hrs Lecture + One Hrs Tutorial as per requirement

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

Fourth Semester

Hrs. 23

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
BTTM401-18	CORE	Introduction to Statistics	3	1	0	40	60	100	4
BTTM402-18	CORE	Policy and Planning for Tourism Development	3	1	0	40	60	100	4
BTTM403-18	CORE	Itinerary Preparation	3	1	0	40	60	100	4
BTTM404-18	CORE	Tour Packaging Design	3	1	0	40	60	100	4
BTTM405-18	CORE	Basics of Entrepreneurship	3	0	0	40	60	100	3
BTTM406-18	PRACTICAL	Summer Internship	0	0	0	00	100	100	2
BTTM-XXX	Elective	Elective-III	2	1	0	40	60	100	3
BMPD402-18		Mentoring and Professional Development	0	0	1	25	--	25	1
TOTAL			17	5	1	265	460	725	25

*A course can either have four Hrs Lecture or Three Hrs Lecture + One Hrs Tutorial as per requirement

Fifth Semester

Hrs. 20

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
BTTM501-18	CORE	Introduction to Tourism Research	3	1	0	40	60	100	4
BTTM502-18	CORE	Tourism Marketing	3	1	0	40	60	100	4
BTTM503-18	CORE	Tourism Business Environment	3	1	0	40	60	100	4
BTTM504-18	CORE	Human Resource Management	3	1	0	40	60	100	4
BTTM505-18	PRACTICAL	Event Operations (Practical)	0	0	4	100	00	100	2
BTTM-XXX	Elective	Elective-IV	3	0	0	40	60	100	3
BMPD502-18		Mentoring and Professional Development	0	0	1	25	--	25	1
TOTAL			15	4	1	325	300	625	22

*A course can either have four Hrs Lecture or Three Hrs Lecture + One Hrs Tutorial as per requirement

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

Sixth Semester

Hrs. 28

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTTM601-18	CORE	Tourism Business Economics	3	1	0	40	60	100	4
BTTM602-18	CORE	Airline Service and In-Flight Facilities	3	1	0	40	60	100	4
BTTM603-18	CORE	Travel Ticketing & Transportation	3	1	0	40	60	100	4
BTTM604-18	CORE	Travel Documentation	3	1	0	40	60	100	4
BTTM605-18	CORE	Adventure Tourism	3	1	0	40	60	100	4
BTTM-XXX	Elective	Elective-V	0	4	0	100	00	100	4
BTTM-XXX	Elective	Elective-VI	3	0	0	40	60	100	3
BMPD602-18		Mentoring and Professional Development	0	0	1	25	--	25	1
		TOTAL	18	9	1	365	360	725	28

Seventh Semester

Hrs. 29

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTTM701-18	CORE	Accounting for Managers	3	1	0	40	60	100	4
BTTM702-18	CORE	Tourism Promotion	3	1	0	40	60	100	4
BTTM703-18	CORE	Research Project Report	3	1	0	40	60	100	4
BTTM704-18	CORE	Outbound Tour Operations	3	1	0	40	60	100	4
BTTM705-18	CORE	Service Marketing	3	1	0	40	60	100	4
BTTM706-18	CORE	Safety & Security Management	3	1	0	40	60	100	4
BTTM-XXX	Elective	Elective-VII	3	1	0	40	60	100	4
BMPD702-18		Mentoring and Professional Development	0	0	1	25	--	25	1
		TOTAL	21	7	1	305	420	725	29

Eighth Semester

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTTM801-18	PRACTICAL	On the Job Training Viva Voce (20 Weeks)	0	0	0	00	100	100	8
BTTM802-18	PRACTICAL	Internship Report	0	0	0	00	200	200	12
		TOTAL	0	0	0	00	300	300	20

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

Elective-I (Choose any one)

- BTTM205-18 Air Travel Management
BTTM206-18 Hotel & Resort Management

Elective-II (Choose any one)

- BTTM307-18 Special Interest Tourism
BTTM308-18 Environment and Tourism

Elective-III (Choose any one)

- BTTM407-18 Disaster Management
BTTM408-18 Tourism Transportation

Elective-IV (Choose any one)

- BTTM506-18 Retail Management
BTTM507-18 Business Tourism

Elective-V (Choose any one)

- BTTM606-18 Foreign Language (German)
BTTM607-18 Foreign Language (French)
BTTM608-18 Foreign Language (Spanish)

Elective-VI (Choose any one)

- BTTM609-18 Rural and Community Based Tourism
BTTM610-18 Regional Dimensions of International Tourism

Elective-VII (Choose any one)

- BTTM707-18 Tourism Product: Europe and America
BTTM708-18 Tourism Product: Asia, Middle East and Pacific Area

Total Marks of BTTMProgram:5250
Total Credit of BTTMProgram:201

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

Course Code : BTTM 101-18
Tourism: Concept, Status and Trends

<p>COURSE OBJECTIVES:</p> <p>EVALUATION:</p> <p>INSTRUCTIONS FOR PAPER SETTING:</p>	<p>This course shall introduce learner to the growth of tourism industry and its development. The course also highlights the role of tourism for economic progress and its significance in global economy; Course discusses the global nature of tourism, tourism product and emerging trends in tourism industry. It also gives appreciation to tourism from future perspective.</p> <p>External-60 marks Internal-40 marks</p> <p>As per university rules</p>
<p>UNIT-1</p> <p>UNIT-2</p> <p>UNIT-3</p> <p>UNIT-4</p>	<p>Historical development of global tourism, Advances in transportation, Concept of Tourism: Definition and meaning of tourist, traveller, visitor, excursionist & transit visitor, International tourist & Domestic Tourist, Typologies of Tourists.</p> <p>Concept of demand & supply in tourism, factors affecting demand and supply in tourism. Tourism product, Features of tourism product, Types of tourism product (TOPs, ROPs, BTEs), Difference of tourism product from other consumer products. Factors inhibiting growth of tourism.</p> <p>Status of Tourism: United Nations World Tourism Organisations (UNWTO) –Tourism highlights of recent years, Latest Tourism Statistics of India, Future tourism scenario (Global and Indian).</p> <p>World Tourism Day: Background Concept, Themes, and Celebrations. Emerging tourism trends – Eco tourism, Green tourism, Alternate tourism, Heritage tourism, Sustainable tourism, Cultural tourism, Volunteer tourism.</p>
<p>REFERENCES:</p>	<ul style="list-style-type: none"> • Bhatia, A.K. <i>International Tourism: Fundamental and practice</i>, Delhi: Sterling. • Hudman, E.L. and D.E. Hawkins, <i>Tourism in Contemporary Society: an introductory text</i>, New Jersey: Prentice Hall. • Kamra, K.K. and M. Chand, <i>Basics of tourism: Theory operation and practice</i>, Delhi: Kanishka. • Lundberg, D.E., <i>The Tourist Business</i>. New York: Van Nostrand. • Reinhold Mill, R.C. and A.M. Morrison, <i>The Tourism System</i>, New Jersey: Prentice Hall

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

	<ul style="list-style-type: none">• McIntosh, Robert, W Goeldner, R Charles, <i>Tourism: Principles, Practices and Philosophies</i>. John Wiley and Sons Inc. New York 1990• Seth P.N., <i>Successful Tourism Management</i>, Sterling Publisher: New Delhi
--	--

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

COURSE CODE:	BTTM 102
COURSE TITLE:	GEOGRAPHY FOR TOURISM
COURSE OBJECTIVES:	Geography is the basic edifice of tourism. The knowledge of geography shall give an extra edge to the students in designing the itineraries for the travellers, suggesting various destinations to the clients for their travel etc.
EVALUATION:	External-60 marks Internal-40 marks
INSTRUCTIONS FOR PAPER SETTING:	As per university rules
UNIT-1	Importance of Geography in Tourism: Geography and Tourism Interface, Geography- Locational Aspects: Latitude, Longitude, Location of Places, Map Reading, International Date Line, Time Zones. Geography-Physical and Human Aspects: Relief, Climate, Flora & Fauna, Economy, Population, Transportation & Communication.
UNIT-2	Hill Stations, Plains, Island, Deserts and Coastal areas of India.
UNIT-3	Mountain Ranges in India (Himalaya, Aravali, Vindya, Satpura, Karakoram, Eastern and Western Ghats, Purvanchal), Major Passes, Mountain Peaks.
UNIT-4	River system of India: Indus, Ganges and Peninsular rivers. Major Wetlands and Water Bodies of India. Ramsar sites in India.
REFERENCES:	<ul style="list-style-type: none"> • Boniface, B.G. and Chris Cooper, <i>The Geography of travel and Tourism</i> Oxford: Butterworth Heinemann. • Hall C.M. and Stephen, J. Page, <i>The Geography of tourism and recreation. Environment, place & space</i>, London: Routledge. • Pearce Douglas, <i>Tourism Today: A Geographical Analysis</i>; New York: Longman. • Singh R.L., <i>India- A Regional Geography</i>, Varanasi: National Geographical Society of India • Seth P.N., <i>Successful Tourism Management</i>, Sterling Publisher: New Delhi • Sarina Singh et. al., <i>India</i>, Lonely Planet Publications

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

COURSE CODE:	BTTM 103
COURSE TITLE:	INDIAN SOCIETY AND CULTURE
COURSE OBJECTIVES:	The Indian society and culture is the main tourist product of India. Its thorough knowledge is essential for any tourism professional to showcase this element for the satisfaction of the tourists visiting various parts of India. This course will brief learner about the core understanding of Indian society, culture and various religions in India.
EVALUATION:	External-60 marks Internal-40 marks
INSTRUCTIONS FOR PAPER SETTING:	As per university rules.
UNIT-1	<p>Culture and its components, Structure of Indian Society, Varnashrama, Caste system in India, Karma and Dharma Philosophy, Rites and Rituals, Main characteristics of Indian culture.</p> <p>Major religions of India - Foundations, Major centres in India: Hinduism, Buddhism, Jainism, Islam, Christianity and Sikhism.</p> <p>Festivals of India - Background, importance and popular places: Ganapati- <i>puja</i>, Diwali, Holi, Dussehara, <i>Puja</i>-Navaratra, Janmashtami, Pongal, Onam, Id, Muharram, Gurpurab, Christmas,</p> <p>Popular Fairs of India - Background, importance and popular places: Kullu- Dussehara, Maghi Mela, Hola Mohalla, Pushkar, Kumbh Melas, Kurukshetra- Solar Eclipse.</p> <ol style="list-style-type: none"> 1. Popular Indian Cuisines 2. Traditional Dresses and Ornaments 3. Dances of India (Classical)
UNIT-2	
UNIT-3	
UNIT-4	
REFERENCES:	<ul style="list-style-type: none"> • Agrawal V.S.: <i>The Heritage of Indian Art</i>, Govt. of India Publication. Basham A L: <i>The wonder that was India</i>, Tapling Publishing Co., New York • Christopher Tadgell : <i>The History of Architecture in India</i>, Penguin, New Delh Daljeet and PC Jain: <i>Indian Miniature Paintings</i>, Brijwasi ArtPress • Dalmia Yashodhra: <i>Contemporary Indian Art: Other Remedies</i> , Marg Publisher, Mumbai • Jagannathan Shankutala : <i>Hinduism – an introduction</i> , Vakils, Feffer and Simon, Mumbai • Keay John: <i>India: A History</i>, Harper Collins • Luniya B.N.: <i>Ancient Indian Culture</i>, Laxmi Narain Educational Publisher, Agra

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

	<ul style="list-style-type: none">• Pattanaik Devdutt: <i>A Handbook of Hindu Mythology</i> , Penguin Global Venkataraman Leela: <i>Indian Classical Dance</i>, Roli Books• Thapar Romila and Percival Spear: <i>History of India</i>, Orient Longman, New Delhi• Sarina Singh et. al., <i>India</i>, Lonely Planet Publications, Australia
--	---

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

COURSE CODE:	BTTM 104
COURSE TITLE:	COMPUTER OPERATIONS
COURSE OBJECTIVES:	The objective of this course is to make students acquaint with the information technology by developing their contemporary skills.
EVALUATION:	External-60 marks Internal-40 marks
INSTRUCTIONS FOR PAPER SETTING:	As per university rules..
UNIT-1	Computer Fundamentals: Information Concepts and Processing: Definitions, Need, Quality and Value of Information, Data Processing Concepts, Role of IT in Tourism Industry. Elements of a Computer System: Definitions, Characteristics of Computers, Classification of Computers, Limitations.
UNIT-2	Hardware Features and Uses: Components of a Computer, Generations of Computers, Primary and Secondary Storage Concepts, Data Entry Devices, Data Output Devices. Software Concepts: System Software, Application Software, Language Classification, Compilers and Interpreters.
UNIT-3	Operating Systems and Software: Introduction to Windows: GUI /Features, Latest version of Windows, Parts of a Typical Window and their Functions. Basics of MS Office: Internal commands, External commands.
UNIT-4	Network Topology-Bus, Star, Ring, Network Applications, Types of Network-LAN, MAN, WAN, Network Configuration Hardware- Server, Nodes, Channel- optic, Twisted Co- Hubs, Fibre , axial, Network Interface Card-Arcnet, Ethernet.
REFERENCES:	<ul style="list-style-type: none"> • Taxali R.K., <i>PC Software Made Simple</i>: Tata McGraw Hill • Raganeman V. <i>Fundamental of Computers</i> : Prentice Hall India Raganeman V.: <i>Analysis & Designing Information System</i>, PrenticeHall India

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

COURSE CODE:	BTTM 105
COURSE TITLE:	INTRODUCTION TO HOSPITALITY INDUSTRY
COURSE OBJECTIVES:	The main aim of this course is to make students aware about the trade practices in the hospitality industry. Hospitality is the soul of the tourism industry. Thus this course will enable student to have overall knowledge of the local tourism attractions and destinations.
EVALUATION:	External-60 marks Internal-40 marks
INSTRUCTIONS FOR PAPER SETTING:	As per university rules
UNIT-1	Hospitality Industry and Tourism: Components of Hospitality Industry, Brief History, Growth of Hospitality Industry, The concept of trinity (food, drink and accommodation),
UNIT-2	Lodging Perspectives: The evolution of the Lodging Industry, The Dimensions of Lodging, Lodging Facilities, and Lodging Operations. Types of Hotels, Hotel Grading System, Changing profile of Hotel Industry.
UNIT-3	Food and Beverage Perspectives: The Dimensions of Food and Beverage, Food and Beverage Facilities, Food and Beverage Operations. Restaurant Business: Restaurants and types of restaurants, Restaurant Operations.
UNIT-4	Food service & Catering industry, Issues facing food service, Institutions and institutional food service, cruise and inflight service operations, Changing trends of Hospitality Industry, forces for the growth and change in the hospitality industry,
REFERENCES:	<ul style="list-style-type: none"> • Powers. Tom and W. B. Clayton.: <i>Introduction to the Hospitality Industry</i>, John Wiley & Sons, INC. • Powers. Tom and W. B. Clayton.: <i>Management in the Hospitality Industry</i>, John Wiley & Sons, INC. • Sharma. K. Yogendra.: <i>Hotel Management-Educational and Environmental Aspects</i>. Kanishka Delhi.

**IK Gujral Punjab Technical University
BTTM Batch 2018 onwards**

**AECC
BTHU103/18 English:
1L 0T 0P 1Credit**

Course Outcomes:

- The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
- To help the students become the independent users of English language.
- To develop in them vital communication skills which are integral to their personal, social and professional interactions.
- The syllabus shall address the issues relating to the Language of communication.
- Students will become proficient in professional communication such as interviews, group discussions, office environments, important reading skills as well as writing skills such as report writing, note taking etc.

The recommended readings given at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics given below. Similarly, the questions in the examination will be aimed towards assessing the skills learnt by the students rather than the textual content of the recommended books.

Detailed Contents:

Unit1- 1 (Introduction)

- Theory of Communication
- Types and modes of Communication

Unit- 2 (Language of Communication)

- Verbal and Non-verbal
- (Spoken and Written)
- Personal, Social and Business
- Barriers and Strategies
- Intra-personal, Inter-personal and Group communication

Unit-3 (Reading and Understanding)

- Close Reading
- Comprehension
- Summary Paraphrasing
- Analysis and Interpretation
- Translation(from Hindi/Punjabi to English and vice-versa)
- Literary/Knowledge Texts

Unit-4 (Writing Skills)

- Documenting
- Report Writing
- Making notes
- Letter writing

Recommended Readings:

1. *Fluency in English* - Part II, Oxford University Press, 2006.
2. *Business English*, Pearson, 2008.
3. *Language, Literature and Creativity*, Orient Blackswan, 2013.
4. *Language through Literature* (forthcoming) ed. Dr. Gauri Mishra, DrRanjanaKaul, DrBrati Biswas
5. *On Writing Well*. William Zinsser. Harper Resource Book. 2001
6. *Study Writing*. Liz Hamp-Lyons and Ben Heasley. Cambridge University Press. 2006.

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards
AECC
BTHU104/18 English Practical/Laboratory
: 0L 0T 2P 1 Credit

Course Outcomes:

- The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
- To help the students become the independent users of English language.
- To develop in them vital communication skills which are integral to personal, social and professional interactions.
- The syllabus shall address the issues relating to the Language of communication.
- Students will become proficient in professional communication such as interviews, group discussions and business office environments, important reading skills as well as writing skills such as report writing, note taking etc.

The recommended readings given at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics given below. Similarly, the questions in the examination will be aimed towards assessing the skills learnt by the students rather than the textual content of the recommended books.

Interactive practice sessions in Language Lab on Oral Communication

- Listening Comprehension
- Self Introduction, Group Discussion and Role Play
- Common Everyday Situations: Conversations and Dialogues
- Communication at Workplace
- Interviews
- Formal Presentations
- Monologue
- Effective Communication/ Mis- Communication
- Public Speaking

Recommended Readings:

1. *Fluency in English* - Part II, Oxford University Press, 2006.
2. *Business English*, Pearson, 2008.
3. *Practical English Usage*. Michael Swan. OUP. 1995.
4. *Communication Skills*. Sanjay Kumar and PushpLata. Oxford University Press. 2011.
5. *Exercises in Spoken English*. Parts. I-III. CIEFL, Hyderabad. Oxford University Press

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

HVPE101-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules
------------	--	--

Course Objective

This introductory course input is intended

- a. To help the students appreciate the essential complementarity between ‘VALUES’ and ‘SKILLS’ to ensure sustained happiness and prosperity which are the core aspirations of all human beings.
- b. To facilitate the development of a Holistic perspective among students towards life, profession and happiness, based on a correct understanding of the Human reality and the rest of Existence. Such a holistic perspective forms the basis of Value based living in a natural way.
- c. To highlight plausible implications of such a Holistic understanding in terms of ethical human conduct, trustful and mutually satisfying human behavior and mutually enriching interaction with Nature.

Thus, this course is intended to provide a much needed orientational input in Value Education to the young enquiring minds.

Course Methodology

- The methodology of this course is universally adaptable, involving a systematic and rational study of the human being vis-à-vis the rest of existence.
- It is free from any dogma or value prescriptions.
- It is a process of self-investigation and self-exploration, and not of giving sermons. Whatever is found as truth or reality is stated as proposal and the students are facilitated to verify it in their own right based on their Natural Acceptance and Experiential Validation.
- This process of self-exploration takes the form of a dialogue between the teacher and the students to begin with, and within the student himself/herself finally.
- This self-exploration also enables them to evaluate their pre-conditionings and present beliefs.

**IK Gujral Punjab Technical University
BTTM Batch 2018 onwards**

HVPE101-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules
------------	--	--

Total no. of Lectures:

28

[L-T-P: 3-0-0]

Content for Lectures:

Module 1: Course Introduction - Need, Basic Guidelines, Content and Process for Value Education

[6]

1. Understanding the need, basic guidelines, content and process for Value Education
2. Self Exploration—what is it? - its content and process; ‘Natural Acceptance’ and Experiential Validation- as the mechanism for self exploration
3. Continuous Happiness and Prosperity- A look at basic Human Aspirations
4. Right understanding, Relationship and Physical Facilities- the basic requirements for fulfillment of aspirations of every human being with their correct priority
5. Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
6. Method to fulfill the above human aspirations: understanding and living in harmony at various levels

Module 2: Understanding Harmony in the Human Being - Harmony in Myself!

[6]

7. Understanding human being as a co-existence of the sentient ‘I’ and the material ‘Body’
8. Understanding the needs of Self (‘I’) and ‘Body’ - *Sukh* and *Suvidha*
9. Understanding the Body as an instrument of ‘I’ (I being the doer, seer and enjoyer)
10. Understanding the characteristics and activities of ‘I’ and harmony in ‘I’
11. Understanding the harmony of I with the Body: *Sanyam* and *Swasthya*; correct appraisal of Physical needs, meaning of Prosperity in detail
12. Programs to ensure *Sanyam* and *Swasthya*
- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 3: Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

[6]

13. Understanding harmony in the Family- the basic unit of human interaction
14. Understanding values in human-human relationship; meaning of *Nyaya* and program for its fulfillment to ensure *Ubhay-tripti*;
Trust (*Vishwas*) and Respect (*Samman*) as the foundational values of relationship
15. Understanding the meaning of *Vishwas*; Difference between intention and competence
16. Understanding the meaning of *Samman*, Difference between respect and differentiation; the other salient values in relationship

**IK Gujral Punjab Technical University
BTTM Batch 2018 onwards**

17. Understanding the harmony in the society (society being an extension of family): *Samadhan, Samridhi, Abhay, Sah-astitva* as comprehensive Human Goals
18. Visualizing a universal harmonious order in society- Undivided Society (*Akhand Samaj*), Universal Order (*Sarvabhaum Vyawastha*)- from family to world family!
- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 4: Understanding Harmony in the Nature and Existence - Whole existence as Co-existence

[4]

19. Understanding the harmony in the Nature
20. Interconnectedness and mutual fulfillment among the four orders of nature- recyclability and self-regulation in nature
21. Understanding Existence as Co-existence (*Sah-astitva*) of mutually interacting units in all-pervasive space
22. Holistic perception of harmony at all levels of existence
- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 5: Implications of the above Holistic Understanding of Harmony on Professional Ethics

[6]

23. Natural acceptance of human values
24. Definitiveness of Ethical Human Conduct
25. Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order
26. Competence in professional ethics:
 - a) Ability to utilize the professional competence for augmenting universal human order,
 - b) Ability to identify the scope and characteristics of people-friendly and eco-friendly production systems,
 - c) Ability to identify and develop appropriate technologies and management patterns for above production systems.
27. Case studies of typical holistic technologies, management models and production systems
28. Strategy for transition from the present state to Universal Human Order:
 - a) At the level of individual: as socially and ecologically responsible engineers, technologists and managers
 - b) At the level of society: as mutually enriching institutions and organizations

Text Book

R R Gaur, R Sangal, G P Bagaria, 2009, *A Foundation Course in Value Education*.

Reference Books

1. Ivan Illich, 1974, *Energy & Equity*, The Trinity Press, Worcester, and HarperCollins, USA
2. E.F. Schumacher, 1973, *Small is Beautiful: a study of economics as if people mattered*, Blond & Briggs, Britain.
3. A Nagraj, 1998, *Jeevan Vidya ek Parichay*, Divya Path Sansthan, Amarkantak.
4. Sussan George, 1976, *How the Other Half Dies*, Penguin Press. Reprinted 1986, 1991

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

5. PL Dhar, RR Gaur, 1990, *Science and Humanism*, Commonwealth Publishers.
6. A.N. Tripathy, 2003, *Human Values*, New Age International Publishers.
7. Subhas Palekar, 2000, *How to practice Natural Farming*, Pracheen(Vaidik) Krishi Tantra Shodh, Amravati.
8. Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, William W. Behrens III, 1972, *Limits to Growth – Club of Rome’s report*, Universe Books.
9. E G Seebauer & Robert L. Berry, 2000, *Fundamentals of Ethics for Scientists & Engineers*, Oxford University Press
10. M Govindrajran, S Natrajan & V.S. Senthil Kumar, *Engineering Ethics (including Human Values)*, Eastern Economy Edition, Prentice Hall of India Ltd.
11. B P Banerjee, 2005, *Foundations of Ethics and Management*, Excel Books.
12. B L Bajpai, 2004, *Indian Ethos and Modern Management*, New Royal Book Co., Lucknow. Reprinted 2008.

Relevant CDs, Movies, Documentaries & Other Literature:

1. Value Education website, <http://uhv.ac.in>
2. Story of Stuff, <http://www.storyofstuff.com>
3. Al Gore, *An Inconvenient Truth*, Paramount Classics, USA
4. Charlie Chaplin, *Modern Times*, United Artists, USA
5. IIT Delhi, *Modern Technology – the Untold Story*

**IK Gujral Punjab Technical University
BTTM Batch 2018 onwards**

HVPE102-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules (Lab/ Seminar)
-------------------	---	--

One each seminar will be organized on Drug De-addiction and Traffic Rules. Eminent scholar and experts of the subject will be called for the Seminar at least once during the semester. It will be binding for all the students to attend the seminar.

**IK Gujral Punjab Technical University
BTTM Batch 2018 onwards**

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.
For achieving the above, suggestive list of activities to be conducted are:

**Part – A
(Class Activities)**

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

**Part – B
(Outdoor Activities)**

1. Sports/NSS/NCC
2. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Evaluation shall be based on rubrics for Part – A & B

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

2nd Semester

COURSE CODE:	BTTM 201
COURSE TITLE:	COMPONENTS OF TOURISM
COURSE OBJECTIVES:	This course will brief learners about the various components of tourism, enabling them to understand the concept of tourism in detail. In this course learner will try to relate tourism with its core sectors. This knowledge will be helpful in shaping a future tourism professional.
EVALUATION:	External-60 marks Internal-40 marks.
INSTRUCTIONS FOR PAPER SETTING:	As per university rules
UNIT-1	Approaches to study tourism: Product, Institutional, Managerial, Geographical and Economic Approach; Concept of interdisciplinary approach to study tourism; Travel Motivation: Categorization of tourists according to their motive of travel; S.C. Plog's Psychographic classification of tourist Motivations. Components of the tourism System.
UNIT-2	Tourism Product; Tourism market- a basket of goods and services; Various types of Tourism Attractions; Linkages between the major components of Tourism Industry.
UNIT-3	Transport as a Component of Tourism, Different types of transportations (Rail, Road, Water and Air); Travel Business through the ages.
UNIT-4	Accommodations Industry: Meaning of Accommodation, Types of Accommodation; Accommodation industry through the ages.
REFERENCES:	<ul style="list-style-type: none"> • Cook, R.A., L.J. Yale, and J.J. Marqua, <i>Tourism: The business of Travel</i>, New Jercey: Prantice Hall. • Medlik, S., <i>Managing tourism</i>, Oxford: Butterworth Heinemann. Mill, R.C. and A.M. Morrison, <i>The Tourism System</i>, New Jersey: Prentice Hall. • Walker, J.R., <i>Introduction to Hospitality</i>. New Jersey: Prentice Hall. Seth P.N., <i>Successful Tourism Management</i>, Sterling Publisher: New Delhi

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

COURSE CODE:	BTTM 202
COURSE TITLE:	TOURISM PRODUCTS OF INDIA: PUNJAB AND CHANDIGARH REGION
COURSE OBJECTIVES:	The main aim of this course to make student aware about the local region. The knowledge of the local area is very important for the tourism professionals thus this course will enable student to have overall knowledge of the local tourism attractions and destinations.
EVALUATION:	External-60 marks Internal-40 marks
INSTRUCTIONS FOR PAPER SETTING:	As per university rules
UNIT-1	Chandigarh as Tourist Destination: History, Geography & Ecology, Demography, Places of interest, Gardens of Chandigarh. Case studies of CITCO and Rock Garden.
UNIT-2	Chandigarh Architecture: Important features of Le Corbusier's Master Plan, Capitol Complex (Assembly, Secretariat, High Court), Museums in Chandigarh, Edict of Chandigarh.
UNIT-3	Features of Punjabi culture: Dresses, Cuisine, Dances, Literature, Language & Sikhism.
UNIT-4	Popular tourist itineraries of region, Case studies of Anandpur Sahib, Amritsar, Patiala, Dharmshala, Haridwar, Rishikesh, Kurukshetra.

**IK Gujral Punjab Technical University
BTTM Batch 2018 onwards**

REFERENCES:	<ul style="list-style-type: none">• Le Corbusier/(Fondation Le Corbusier) (1983), Chandigarh—Capitole, Garland Pub., New York : Paris• Grewal.J. S (2004). Social and Cultural History of the Punjab: Prehistoric, Ancient and Early Medieval, Manohar: New Delhi• J. C. Aggarwal and S. P. Agrawal, eds. (1992). Modern History of Punjab: Relevant Select Documents• Ahluwalia, M.S. (1998). Social, Cultural and Economic History of Himachal Pradesh.• Indus Publishing.• Singh, Mian Goverdhan (2000). C.L. Gupta & Kulbhushan Chandel, ed. Himachal Pradesh: History, Culture & Economy. Shimla.: Minerva Publishers & Distributors.• Fonia, K. S. (1987). Uttarakhand, the land of jungles, temples, and snows. New Delhi, India: Lancer Books.• Thapliyal Uma Prasad (2005). Uttaranchal: Historical and cultural perspectives. B.R. Pub. Corp.,• Sharma, Suresh K (2006). Haryana: Past and Present. New Delhi: Mittal Publications.• Sarbjit Bahga, Surinder Bahga (2014) Le Corbusier and Pierre Jeanneret: The Indian Architecture, CreateSpace, ISBN 978-1495906251• Kalia, Ravi. Chandigarh: The Making of an Indian City. New Delhi: Oxford University Press, 1999.• Sarin, Madhu. Urban Planning in the Third World: The Chandigarh Experience.• London: Mansell Publishing, 1982.
--------------------	--

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

COURSE CODE:	BTTM 203
COURSE TITLE:	TOURISM PRODUCT OF INDIA: ART AND ARCHITECTURE
COURSE OBJECTIVES:	A thorough knowledge about the various product offered in tourism is a must for a tourism professional who shall be, in the future involved in the product development and in product sales & marketing.
EVALUATION:	External-60 marks Internal-40 marks
INSTRUCTIONS FOR PAPER SETTING:	As per university rules.
UNIT-1	Elements of Indian Art: Dance, Music, Literature, Cinema, Handicrafts.
UNIT-2	Indian Sculptures- Ancient, Medieval and Modern; Evolution through the ages; Main tourist centers in India.
UNIT-3	Indian Architecture- Ancient, Medieval and Modern; growth and development through the ages; Different style of architecture in India - Hindu, Buddhist and Islamic.
UNIT-4	Indian Paintings - Ancient, Medieval and Modern; Various schools of Paintings; Important Museums, Art Galleries and Libraries of India.
REFERENCES:	<ul style="list-style-type: none"> • Agrawal V.S.: <i>The Heritage of Indian Art</i>, Govt. of India Publication. • Basham A L: <i>The wonder that was India</i>, Tapling Publishing Co., New York • Christopher Tadgell : <i>The History of Architecture in India</i>, • Penguin, New Delhi • Daljeet and PC Jain: <i>Indian Miniature Paintings</i>, Brijwasi Art Press • Dalmia Yashodhra: <i>Contemporary Indian Art: Other Remedies</i> , Marg Publisher, Mumbai • Luniya B.N.:<i>Ancient Indian Culture</i>, Laxmi Narain Educational Publisher, Agra • Venkataraman Leela: <i>Indian Classical Dance</i>, Roli Books • Thapar Romila and Percival Spear: <i>History of India</i>, Orient Longman, New Delhi. • Sarina Singh et. al., <i>India</i>, Lonely Planet Publications, Australia Acharya Ram: <i>Tourism and Culture heritage of India</i>, RBSA • Pub, Jaipur • Goswami O.: <i>Story of Indian music: Its growth and Synthesis</i>, • Asia Pub House, Mumbai • Bhavani, Enakshi: <i>Dance in India</i>, DB Taraporevala Sons & Co.

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

COURSE CODE:	BTTM 204
COURSE TITLE:	TOURISM PRODUCT OF INDIA: NATURE BASED
COURSE OBJECTIVES:	Nature is the basic component of tourism. The knowledge of natural places shall give an extra edge to the students in designing the itineraries for the travellers, suggesting them various destinations to the clients for their travel etc.
EVALUATION:	External-60 marks Internal-40 marks
INSTRUCTIONS FOR PAPER SETTING:	As per university rules
UNIT-1	Nature as a tourism attraction, concept of ecotourism and responsible tourism, do's and don'ts for tourists and stakeholders, Special requirements for visiting natural areas in India.
UNIT-2	Mountain and Highland Tourism in India (Major tourist places, activities): Case studies of following tourist places: Ladakh, Srinagar (J&K), Shimla, Manali, Nainital, Mount Abu, Darjeeling, Gangtok, Ooty, Kodaikanal,
UNIT-3	Rivers as tourist attractions (Activities and places): Beas, Ganga, Brahmaputra, Periyar. Backwater Tourism, Cruise Tourism in India.
UNIT-4	Important Wildlife Sanctuaries and National Parks of India (Major features, access, facilities, history, procedural aspects for visiting): Great Himalayan National Park, Corbett National Park, Keoladeo Ghana National Park, Ranthambor National Park, Gir National Park, Bhandhavgarh, Kanha National Park, Nanda Devi, Kaziranga, Sunderbans, Nagarhole, Periyar.
REFERENCES:	<ul style="list-style-type: none"> • Hannam Kevin, Anya Diekmann, Tourism and India: A Critical Introduction, Routledge: Oxon • Newsome David, and Susan A. Moore, Natural Area Tourism: Ecology, Impacts and Management, Chanel View Publication • Singh R.L., India- A Regional Geography, Varanasi: National Geographical Society of India • Seth P.N., Successful Tourism Management, Sterling Publisher: New Delhi • Singh Sarina et. al., India, Lonely Planet Publications.

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

COURSE CODE:	BTTM 205
COURSE TITLE:	AIR TRAVEL MANAGEMENT
COURSE OBJECTIVES:	The objective of this course is to make students understand the Air travel, which is important component of Tourism.
COURSE EVALUATION:	External-60 marks Internal-40 marks
INSTRUCTIONS FOR PAPER SETTING:	As per university rules.
UNIT- 1	History of Air Transport: History and Evolution of Aviation Sector in India and World; Major Airlines in India; Airline Ticket, Types and its structure.
UNIT- 2	Airport Facilities and Infrastructures: setup of an Airport, terminology of aviation; Airport ownership and operation; Airport operations; Traffic pattern; Major airports in India and World; navigational Aids; Airport safety management.
UNIT- 3	Aviation Organisations: International air transport regulations including freedoms of air; ICAO, IATA, DGCA, AAI and Open Sky Policy in India.
UNIT- 4	Indian aviation - case studies of Air India, Jet Airways, Indigo airlines, GoAir, Spicejet, and Vistara; Legal environment for air taxi operations; air charters in India; LCC's; Forces likely to affect the future of air transport industry etc.
REFERENCES:	John G. Wensveen, <i>Air Transportation: A Management Perspective</i> ; Ashgate Publishing, Ltd. Anne Graham, <i>Managing Airports: An international perspective</i> ; Routledge. Stephen Page; <i>Transport for Tourism</i> ; Prentice Hall College Div.

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

COURSE CODE:	BTTM 206
COURSE TITLE:	Hotel & Resort Management
COURSE OBJECTIVES:	The objective of this course is to make students understand the Air travel, which is important component of Tourism.
COURSE EVALUATION:	External-60 marks Internal-40 marks
INSTRUCTIONS FOR PAPER SETTING:	As per university rules.
UNIT- 1	Definition,size and scope of Hotel Industry,Principles and concepts of Hotel and its objectives,organization,departments and classification of Hotels,star categorization,types of rooms and types of plan-License,Permits and regulatory condition and guidelines for hotel
UNIT- 2	Front Office Techniques-Front office layout and activities,guest Activities in hotel reservation,role of reception-Forecasting room Availability,registration procedure,handling guests on arrival, Food and Beverages,Billing and departure activities,Group Handling,Role of Front Office Manager and Personnel
UNIT- 3	Banquet Function,Convention Halls,Meeting room-Arrangement for General and business meetings,organizations and procedure for Arrangement of conferences,exhibitions,and outdoor catering.National and International Hotel Associations and their operation,incentives and subsidies extended to Hotel in tourist areas
UNIT- 4	Resort Management-Historical perspective, Indian scenario, basic Characteristics, phases of resort planning and development,trends and Factors in development, Trends and factors in developed tourist markets Leading to growth to resort concept, basic element of a resort complex-Lodging facilities,landscaping,Dining and Drinking facilities,Family Oriented services,shops and entertainment services
REFERENCES:	<ul style="list-style-type: none"> • Boardman R.D.Hotel,catering costing,and Budgets,1975,Heinem ent,London. • Bursteen Harnery,Management of Hotels and Motels 1980 Marcil Dekher Inc. • Negi Jagmohan– Tourism and Hoteliering 1982 Gitanjali Publishing House,New Delhi. • Negi Jagmohan, Principles of Grading and Classification of Hotels.

Ability Enhancement Compulsory Course

(EVS102-18 Environment Studies)

Course Code	Course Type	Course Title	Load Allocations			Mark Distribution		Total Marks	Credits
						Internal	External		
EVS 102-18	Ability Enhancement Compulsory Course (AECC)-III	Environmental Studies	2	0	0	40	60	100	2

Course Outcomes:

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

Unit 1 : Introduction to environmental studies

- Multidisciplinary nature of environmental studies;
- Scope and importance; Concept of sustainability and sustainable development.

(2 lectures)

Unit 2 : Ecosystems

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
 - a) Forest ecosystem
 - b) Grassland ecosystem
 - c) Desert ecosystem
 - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

(6 lectures)

Unit 3 : Natural Resources : Renewable and Non---renewable Resources

- Land resources and land use change; Land degradation, soil erosion and desertification.
- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
- Water : Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).
- Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

(8 lectures)

Unit 4 : Biodiversity and Conservation

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega-biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(8 lectures)

Unit 5 : Environmental Pollution

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management : Control measures of urban and industrial waste.
- Pollution case studies.

(8 lectures)

Unit 6 : Environmental Policies & Practices

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

Unit 7 : Human Communities and the Environment

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

Unit 8 : Field work

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

Suggested Readings:

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R.1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999.*Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll.*Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36---37.
7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29---64). Zed Books.
8. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
9. Odum, E.P., Odum, H.T. & Andrews, J. 1971.*Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards

11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India. Tripathi 1992*.
14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.

IK Gujral Punjab Technical University
BTTM Batch 2018 onwards
Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.
For achieving the above, suggestive list of activities to be conducted are:

Part – A
(Class Activities)

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

Part – B
(Outdoor Activities)

3. Sports/NSS/NCC
4. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Evaluation shall be based on rubrics for Part – A & B

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.