

Programme Name/s	: Architecture Assistantship/ Architecture and Interior Design/ Automobile Engineering./ Artificial Intelligence/ Agricultural Engineering/ Artificial Intelligence and Machine Learning/ Automation and Robotics/ Architecture/ Cloud Computing and Big Data/ Civil Engineering/ Chemical Engineering/ Computer Technology/ Computer Engineering/ Civil & Rural Engineering/ Construction Technology/ Computer Software Technology/ Computer Science & Engineering/ Fashion & Clothing Technology/ Dress Designing & Garment Manufacturing/ Digital Electronics/ Data Sciences/ Electrical Engineering/ Electronics & Tele-communication Engg./ Electrical and Electronics Engineering/ Electrical Power System/ Electronics & Communication Engg./ Electronics Engineering/ Food Technology/ Computer Hardware & Maintenance/ Hotel Management & Catering Technology/ Instrumentation & Control/ Industrial Electronics/ Information Technology/ Computer Science & Information Technology/ Instrumentation/ Interior Design & Decoration/ Interior Design/ Civil & Environmental Engineering/ Mechanical Engineering/ Mechatronics/ Medical Laboratory Technology/ Manufacturing Technology/ Medical Electronics/ Metallurgical Engineering/ Production Engineering/ Printing Technology/ Polymer Technology/ Surface Coating Technology/ Computer Science/ Textile Technology/ Electronics & Computer Engg./ Travel and Tourism/ Textile Manufactures
Programme Code	: AA/ AD/ AE/ AI/ AL/ AN/ AO/ AT/ BD/ CE/ CH/ CM/ CO/ CR/ CS/ CST/ CW/ DC/ DD/ DE/ DS/ EE/ EJ/ EK/ EP/ ET/ EX/ FC/ HA/ HM/ IC/ IE/ IF/ IH/ IS/ IX/ IZ/ LE/ ME/ MK/ ML/ MRT/ MU/ MY/ PG/ PN/ PO/ SC/ SE/ TC/ TE/ TR/ TX
Semester	: Second
Course Title	: SOCIAL AND LIFE SKILLS
Course Code	: 312003

## I. RATIONALE

Rationale : Life skills can be defined as abilities that enable humans to deal effectively with the demands and challenges of life. Social skills are a subset of life skills that are needed for successful, healthy relationships to easily adapt when moving from one social situation to the next. They help regulate our emotions effectively and develop enduring, supportive relationships, we're happier and healthier. This is why developing life skills and eventually social skills is key not only to being successful in life, it's key for our health and well-being. Thus, Teaching of Social and life skills provide students with essentials of knowing , understanding attitudes, values, morals ,social skills and better equip them to handle stress and build their self efficacy, self esteem and self confidence.

Note : The course offers five different alternatives(modules) for achieving above outcomes . Students must complete any one module from the following given options.

- MODULE-I : Unnat Maharashtra Abhiyan (UMA)
- MODULE-II : National Service Scheme (NSS)

- c. MODULE-III : Universal Human Values
- d. MODULE-IV: Value Education (Unnati Foundation)
- e. MODULE-V : Financial Literacy (NABARD)

The institute can choose to offer any one MODULE to the groups of the students by taking into consideration the resources required and resources available in the institute . Different group of students maybe offered different MODULE based on their choices .

## II. INDUSTRY / EMPLOYER EXPECTED OUTCOME

Demonstrate critical social and life skills ethics, resilience, positive attitude , integrity and self-confidence at workplace and society at large.

## III. COURSE LEVEL LEARNING OUTCOMES (COS)

Students will be able to achieve & demonstrate the following COs on completion of course based learning

- CO1 - Enhance the ability to be fully self-aware and take challenges by overcoming all fears and insecurities and grow fully.
- CO2 - Increase self-knowledge and awareness of emotional skills and emotional intelligence at the place of study/work.
- CO3 - Provide the opportunity to realizing self-potential through practical experience while working individually or in group.
- CO4 - Develop interpersonal skills and adopt good leadership behaviour for self-empowerment and empowerment of others.
- CO5 - Set appropriate life goals with managing stress and time effectively.

## IV. TEACHING-LEARNING & ASSESSMENT SCHEME

Course Code	Course Title	Abbr	Course Category/s	Learning Scheme			Credits	Paper Duration	Assessment Scheme						Total Marks			
				Actual Contact Hrs./Week					Theory			Based on LL & TL		Based on SL				
				CL	TL	LL			Practical		FA-TH	SA-TH	Total	FA-PR	SA-PR	SLA		
									Max	Max	Max	Min	Max	Min	Max			
312003	SOCIAL AND LIFE SKILLS	SFS	VEC	-	-	-	2	2	1	-	-	-	-	-	-	50 20 50		

**Total IKS Hrs for Sem. : Hrs**

Abbreviations: CL- ClassRoom Learning , TL- Tutorial Learning, LL-Laboratory Learning, SLH-Self Learning Hours, NLH-Notional Learning Hours, FA - Formative Assessment, SA -Summative assessment, IKS - Indian Knowledge System, SLA - Self Learning Assessment

Legends: @ Internal Assessment, # External Assessment, \*# On Line Examination , @\\$ Internal Online Examination

Note :

1. FA-TH represents average of two class tests of 30 marks each conducted during the semester.
2. If candidate is not securing minimum passing marks in FA-PR of any course then the candidate shall be declared as "Detained" in that semester.
3. If candidate is not securing minimum passing marks in SLA of any course then the candidate shall be declared as fail and will have to repeat and resubmit SLA work.
4. Notional Learning hours for the semester are  $(CL+LL+TL+SL)$ hrs.\* 15 Weeks
5. 1 credit is equivalent to 30 Notional hrs.
6. \* Self learning hours shall not be reflected in the Time Table.
7. \* Self learning includes micro project / assignment / other activities.

## V. THEORY LEARNING OUTCOMES AND ALIGNED COURSE CONTENT

Sr.No	Theory Learning Outcomes (TLO's)aligned to CO's.	Learning content mapped with Theory Learning Outcomes (TLO's) and CO's.	Suggested Learning Pedagogies.
-------	--	---	--------------------------------



**SOCIAL AND LIFE SKILLS****Course Code : 312003**

Sr.No	Theory Learning Outcomes (TLO's)aligned to CO's.	Learning content mapped with Theory Learning Outcomes (TLO's) and CO's.	Suggested Learning Pedagogies.
1	<p>TLO 1.1 Explain developmental needs and connection of various stakeholders</p> <p>TLO 1.2 Enlist the local problems</p> <p>TLO 1.3 Design a methodology for fieldwork</p> <p>TLO 1.4 Select the attributes of engineering and social system for measurement, quantification, and documentation</p> <p>TLO 1.5 Measure &amp; quantify the quantities / systems parameters</p> <p>TLO 1.6 Write a report using information collected tStudy the data collected from fieldwork and conclude the observations</p>	<p><b>MODULE I : Activities Under Unnat Maharashtra Abhiyan (UMA)</b></p> <p>1.1 Introduction to Societal Needs and respective stakeholders : Regional societal issues that need engineering intervention</p> <p>1.2 Multidisciplinary approach-linkages of academia, society and technology</p> <p>1.3 Stakeholders' involvement</p> <p>1.4 Introduction to Important secondary data sets available such as census, district economic surveys, cropping pattern, rainfall data, road network data etc</p> <p>1.5 Problem Outline and stakeholders : Importance of activity and connection with Mapping of system components and stakeholders (engineering / societal)</p> <p>1.6 Key attributes of measurement</p> <p>1.7 Various instruments used for data collection - survey templates, simple measuring equipments</p> <p>1.8 Format for measurement of identified attributes/ survey form and piloting of the same</p> <p>1.9 Fieldwork : Measurement and quantifications of local systems such as agriculture produce, rainfall, Road network, production in local industries, Produce /service which moves from A to B</p> <p>1.10 Analysis and Report writing Report writing containing-</p> <ol style="list-style-type: none"> <li>1. Introduction of the topic</li> <li>2. Data collected in various formats such as table, pie chart, bar graph etc</li> <li>3. Observations of field visits and data collected.</li> </ol>	<p>i) Group discussion ii) Role play iii) Case study iv) Seminar and presentation</p> <p><b><u>Implementation guidelines suggested</u></b></p> <p>The course will be implemented in eight sessions and fieldwork:</p> <ol style="list-style-type: none"> <li>a) Session I - Introduction to development paradigm, fieldwork and case study as pedagogy</li> <li>b) Session II - VII - Society, stakeholders and value creation, measurements, rudimentary analysis and reporting</li> <li>c) Session VIII - Final closure session feedback and assessment</li> <li>d) Field work - <ol style="list-style-type: none"> <li>1. Pilot Visit - Pilot of survey instrument</li> <li>2. Survey Visit 1 - Data gathering / Information Collection</li> <li>3. Survey Visit 2 - Data gathering</li> <li>4. Summary Visit - Closure after analysis</li> </ol> </li> </ol> <p><b>Methodology:</b> Considering the nature of the course designed, following points shall be considered while implementing the course.</p> <ol style="list-style-type: none"> <li>i) Regroup in the batches of 5-6 students for conducting the fieldwork from the bigger group.</li> <li>ii) Assign a few batches of the students for this course to all the faculty members.</li> <li>iii) A group of course teachers will visit local governance bodies such as Municipal Corporations, Village</li> </ol>

**SOCIAL AND LIFE SKILLS****Course Code : 312003**

Sr.No	Theory Learning Outcomes (TLO's)aligned to CO's.	Learning content mapped with Theory Learning Outcomes (TLO's) and CO's.	Suggested Learning Pedagogies.
			<p>Panchayats, Zilla Parishads, Panchayat Samitis to assess the small technological / engineering needs in their area of work.</p> <p>iv) The group of course teachers will carry out initial field visits to evaluate the various possibilities of field visits / various scenarios where in students can conduct field work to measure / quantify the parameters / attributes.</p>
2	<p>TLO 2.1 Adopt a Village or Slum for providing needed services to the community</p> <p>TLO 2.2 Carry out Survey to identify the problems of village community</p> <p>TLO 2.3 Undertake Special camping about developmental programs</p> <p>TLO 2.4 Establish the liaisons between government and other developmental agencies for the implementations of various development schemes of Government</p>	<p><b>MODULE II : National Service Scheme (NSS)</b></p> <p>2.1 Contacting Village/Area Leaders</p> <p>2.2 Primary socio economic survey of few villages in the vicinity of the institute.</p> <p>2.3 Selection of the village for adoption - conduct of activities</p> <p>2.4 Comprehensive Socio Economic Survey of the Village/Area</p> <p>2.5 Identification of Problem(s)</p> <p>2.6 Dissemination of information about the latest developments in agriculture, watershed management, wastelands development, non-conventional energy, low cost housing, sanitation, nutrition and personal hygiene, schemes for skill development, income generation, government schemes, legal aid, consumer protection and allied fields.</p> <p>2.7 A liaison between government and other development agencies for the implementation of various development schemes in the selected village / slum.</p>	<p>(i) The teachers should visit the village / slum before adopting it for NSS activities.</p> <p>(ii) The selected area should be compact.</p> <p>(iii) The community people should be receptive to the ideas of improving their living standard. They should also be ready to coordinate and involve in the projects undertaken by the NSS for their upliftment.</p> <p>(iv) The areas where political conflicts are likely to arise should be avoided by the NSS units.</p> <p>(v) The area should be easily accessible to the NSS volunteers to undertake frequent visits to slums.</p>

**SOCIAL AND LIFE SKILLS****Course Code : 312003**

Sr.No	Theory Learning Outcomes (TLO's)aligned to CO's.	Learning content mapped with Theory Learning Outcomes (TLO's) and CO's.	Suggested Learning Pedagogies.
3	TLO 3.1 Demonstrate Love and Compassion (Prem and Karuna) in the society TLO 3.2 Follow the path of Truth (Satya) TLO 3.3 Practice Non-Violence (Ahimsa) TLO 3.4 Follow the Righteousness (Dharma) TLO 3.5 Attain Peace (Shanti) in Life TLO 3.6 Provide Service (Seva) to the needy person/community. TLO 3.7 Demonstrate Renunciation (Sacrifice) Tyaga TLO 3.8 Practice Gender Equality and Sensitivity	<b>MODULE-III : Universal Human Values</b> 3.1 Love and Compassion (Prem and Karuna): Introduction, Practicing Love and Compassion (Prem and Karuna) 3.2 Truth (Satya) : Introduction, Practicing Truth (Satya) 3.3 Non-Violence (Ahimsa) : Introduction, Practicing Non-Violence (Ahimsa) 3.4 Righteousness (Dharma) : Introduction, Practicing Righteousness (Dharma) 3.5 Peace (Shanti) : Introduction, Practicing Peace (Shanti) 3.6 Service (Seva) : Introduction, Practicing Service (Seva) 3.7 Renunciation (Sacrifice) Tyaga : Introduction, Practicing Renunciation (Sacrifice) Tyaga 3.8 Gender Equality and Sensitivity: Introduction, Practicing Gender Equality and Sensitivity	i) Lectures ii) Demonstration iii) Case Study iv) Role Play v) Observations vi) Portfolio Writing vii) Simulation viii) Motivational talks by Practitioners ix) Site/Industry Visit

**SOCIAL AND LIFE SKILLS****Course Code : 312003**

Sr.No	Theory Learning Outcomes (TLO's)aligned to CO's.	Learning content mapped with Theory Learning Outcomes (TLO's) and CO's.	Suggested Learning Pedagogies.
4	<p>TLO 4.1 Demonstrate Punctuality appropriately</p> <p>TLO 4.2 Practice Cleanliness, Hygiene and Orderliness for self and others</p> <p>TLO 4.3 Take Responsibility and Calculated Risks</p> <p>TLO 4.4 Demonstrate Gratitude and Appreciations</p> <p>TLO 4.5 Show Determination &amp; Persistence about work</p> <p>TLO 4.6 Give Respect as per the social norms and practice</p> <p>TLO 4.7 Respect Team Spirit to the acceptable level</p> <p>TLO 4.8 Practice Caring &amp; Sharing among fellow citizens/community</p> <p>TLO 4.9 Demonstrate Honesty</p> <p>TLO 4.10 Practice for Forgive and Forget</p>	<p><b>MODULE-IV: Value Education (Unnati Foundation)</b></p> <p>4.1 Punctuality, Icebreaker and Simple Greeting, Understanding &amp; Managing Emotions, Introducing Self, The power of a Positive Attitude, Talking about one's Family, Talking about one's Family, Making a Positive Impression, Give word list for a Word based</p> <p>4.2 Cleanliness , Hygiene and Orderliness , Likes and Dislikes, Developing Confidence in Self and Others, Strengths and Weaknesses, Listening Skills , Greeting gestures, Gender Equality and Sensitivity</p> <p>4.3 Responsibility, OCSEM- Visual Comprehension and Word Based Learning, Goal Setting – Make it happen, Follow, Like &amp; Share Unnati Social Media - Facebook / Instagram/ Twitter Introducing Others, Time Management, Talking about the daily routine, Money Management</p> <p>4.4 Gratitude and Appreciation , Asking Simple Questions &amp; Asking for the price , Stress Management, Student Referral process ,Comprehending &amp; Paraphrasing Information, A Plate of Rice and Dignity of Labour, Topics for Public Speaking, Placement Process , OCSEM-E- Newspaper, Critical Thinking to overcome challenges</p> <p>4.5 Determination and Persistence, Guiding and Giving Directions, Language Etiquette &amp; Mannerism, . Unnati Philosophy , b. Unnati Branding - Follow, Like &amp; Share Unnati Social Media - Facebook / Instagram/ Twitter, Simple instructions to follow procedures, Assertiveness, Give topics for Debate, Describing a person/Objects, Refusal Skills, Word List for Word based Learning</p> <p>4.6 Respect, Comparing , OCSEM - Public Speaking, Student referral process, Attending a phone call, Being a Good Team Player , Placement Process, At a Restaurant, Workplace ethics</p> <p>4.7 Team Spirit, Inviting someone, OCSEM - Picture Reading &amp; Word, a. Unnati Philosophy &amp; b. Unnati Branding - Follow, Like &amp; Share Unnati Social Media</p>	i) Video Demonstrations ii) Flipped Classroom iii) Case Study iv) Role Play v) Collaborative learning vi) Cooperative Learning vii) Chalk-Board

**SOCIAL AND LIFE SKILLS****Course Code : 312003**

Sr.No	Theory Learning Outcomes (TLO's)aligned to CO's.	Learning content mapped with Theory Learning Outcomes (TLO's) and CO's.	Suggested Learning Pedagogies.
		<ul style="list-style-type: none"> <li>- Facebook / Instagram/ Twitter, Apologizing, Apologizing, Dealing effectively with Criticism, Introduce Importance of Self Learning and upskilling</li> <li>4.8 Caring and Sharing , Handling Customer queries, Flexibility &amp; Adaptability, Student referral process, Writing a Resume, OCSEM-Public Speaking, Placement Process, Meditation/ Affirmation &amp; OCSEM-Debate, Introduce Certif-ID, how to create Certif-ID Project ,</li> <li>4.9 Honesty, Email etiquette &amp; Official Email communication, Alcohol &amp; Substance use &amp; abuse, Describing a known place , Leadership Skills, Describing an event, OSCEM-Picture Reading &amp; Visual Comprehension</li> <li>4.10 Forgive and Forget, Facing and Interview, OSCEM-Public Speaking , Attending a telephonic/Video interview &amp; Mock Interview , Affirmation , Pat-a-Back &amp; Closure (Valediction , Unnati Branding, Student Testimonials), Meditation/ Affirmation &amp; Sponsor connect (Speak to UNXT HO)</li> </ul>	
5	<p>TLO 5.1 Develop Literacy About Savings and Investments in the community</p> <p>TLO 5.2 Attain Literacy About Financial Planning</p> <p>TLO 5.3 Demonstrate skills about Financial Transactions</p> <p>TLO 5.4 Use Literacy skills About Income, expenditure and budgeting</p> <p>TLO 5.5 Use measures about Inflation in the market.</p> <p>TLO 5.6 Use Literacy/Knowledge About Loans</p> <p>TLO 5.7 Explain the Importance of Insurance</p> <p>TLO 5.8 Follow Dos and Donts about finances</p>	<p><b>MODULE-V : Financial Literacy</b></p> <p>5.1 Introduction - Life Goals and financial goals</p> <p>5.2 Savings and Investments - Three pillars of investments, Popular asset classes, Government schemes, Mutual Funds, Securities markets (Shares and bonds), Gold, Real Estate, Do's and Don'ts of investments</p> <p>5.3 Retirement planning</p> <p>5.4 Cashless transactions</p> <p>5.5 Income, expenditure and budgeting – Concepts and Importance</p> <p>5.6 Inflation- Concept, effect on financial planning of an individual</p> <p>5.7 Loans – Types, Management of loans, Tax benefits</p> <p>5.8 Insurance – Types, Advantages, selection</p> <p>5.9 Dos and Donts in Financial planning and Transactions</p>	<ul style="list-style-type: none"> <li>i) Online/Offline Mode of Instructions</li> <li>ii) Video Demonstrations</li> <li>iii) Presentations</li> <li>iv) Case Study</li> <li>v) Chalk-Board</li> <li>vi) Collaborative learning</li> </ul>

**VI. LABORATORY LEARNING OUTCOME AND ALIGNED PRACTICAL / TUTORIAL EXPERIENCES**

**: NOT APPLICABLE.**

## **VII. SUGGESTED MICRO PROJECT / ASSIGNMENT/ ACTIVITIES FOR SPECIFIC LEARNING / SKILLS DEVELOPMENT (SELF LEARNING)**

### **Suggestive list of activities during Regular as well as Special Camping (NSS Activities)**

- Following list is only an illustrative list of the type of activities that can be undertaken. Under the programme it would be open to each NSS Unit to undertake one of these programmes or any other activity which may seem desirable to them according to local needs. The NSS Unit should aim at the integrated development of the area selected for its operation which could be a village or a slum. It has also to be ensured that at least a part of the programme does involve manual work.

#### **(a) Environment Enrichment and Conservation:**

The activities under this sub-theme would inter-alia, include:

- (i) plantation of trees, their preservation and upkeep
- (ii) Construction & maintenance of village streets, drains
- (iii) Cleaning of village ponds and wells;
- (iv) Popularization and construction of Gobar Gas Plants, use of non-conventional energy;
- (v) Disposal of garbage & composting;
- (vi) Prevention of soil erosion and work for soil conservation,
- (vii) Watershed management and wasteland development
- (viii) Preservation and upkeep of monuments, and creation of consciousness about the preservation of cultural heritage among the community.

#### **(b) Health, Family Welfare and Nutrition Programme:**

##### **(i) Programme of mass immunization;**

(ii) Working with people in nutrition programmes with the help of Home Science and medical college students;

(iii) Provision of safe and clean drinking water;

(iv) Integrated child development programmes;

(v) Health education, AIDS Awareness and preliminary health care.

(vi) Population education and family welfare programme;

(vii) Lifestyle education centres and counselling centres.

© Programmes aimed at creating an awareness for improvement of the status of women: (i) programmes of educating people and making them aware of women's rights both constitutional and legal;

(ii) creating consciousness among women that they too contributed to economic and social well-being of the community;

(iii) creating awareness among women that there is no occupation or vocation which is not open to them provided they acquire the requisite skills; and

(iv) imparting training to women in sewing, embroidery, knitting and other skills wherever possible.

#### **(d) Social Service Programmes:**

(i) work in hospitals, for example, serving as ward visitors to cheer the patients, help the patients, arranging occupational or hobby activities for long term patients; guidance service for out-door-patients including guiding visitors about hospital's procedures, letter writing and reading for the patients admitted in the hospital; follow up of patients discharged from the hospital by making home visits and places of work, assistance in running dispensaries etc.

(ii) work with the organisations of child welfare;

(iii) work in institutions meant for physically and mentally handicapped;

(iv) organising blood donation, eye pledge programmes;

- (v) work in Cheshire homes, orphanages, homes for the aged etc.;
- (vi) work in welfare organisations of women;
- (vii) prevention of slums through social education and community action;

**(e) Production Oriented Programmes:**

- (i) working with people and explaining and teaching improved agricultural practices;
- (ii) rodent control land pest control practices;
- (iii) weed control;
- (iv) soil-testing, soil health care and soil conservation;
- (v) assistance in repair of agriculture machinery;
- (vi) work for the promotion and strengthening of cooperative societies in villages;
- (vii) assistance and guidance in poultry farming, animal husbandry, care of animal health etc.;
- (viii) popularisation of small savings and assistance in procuring bank loans

**(f) Relief & Rehabilitation work during Natural Calamities:**

- (i) assisting the authorities in distribution of rations, medicine, clothes etc.;
- (ii) assisting the health authorities in inoculation and immunisation, supply of medicine etc.;
- (iii) working with the local people in reconstruction of their huts, cleaning of wells, building roads etc.;
- (iv) assisting and working with local authorities in relief and rescue operation;
- (v) collection of clothes and other materials, and sending the same to the affected areas;

**(g) Education and Recreations: Activities in this field could include:**

- (i) adult education (short-duration programmes);
- (ii) pre-school education programmes;
- (iii) programmes of continuing education of school drop outs, remedial coaching of students from weaker sections;
- (iv) work in crèches;
- (v) participatory cultural and recreation programmes for the community including the use of mass media for instruction and recreation, programmes of community singing, dancing etc.;
- (vi) organisation of youth clubs, rural land indigenous sports in collaboration with Nehru Yuva Kendras;
- (vii) programmes including discussions on eradication of social evils like communalism, castism, regionalism, untouchability, drug abuse etc.;
- (viii) non-formal education for rural youth and
- (ix) legal literacy, consumer awareness.

**Note :**

- Above is just a suggestive list of microprojects and assignments; faculty must prepare their own bank of microprojects, assignments, and activities in a similar way.
- The faculty must allocate judicious mix of tasks, considering the weaknesses and / strengths of the student in acquiring the desired skills.
- If a microproject is assigned, it is expected to be completed as a group activity.
- SLA marks shall be awarded as per the continuous assessment record.
- For courses with no SLA component the list of suggestive microprojects / assignments/ activities are optional, faculty may encourage students to perform these tasks for enhanced learning experiences.
- If the course does not have associated SLA component, above suggestive listings is applicable to Tutorials and maybe considered for FA-PR evaluations.

**VIII. LABORATORY EQUIPMENT / INSTRUMENTS / TOOLS / SOFTWARE REQUIRED**

**SOCIAL AND LIFE SKILLS****Course Code : 312003**

Sr.No	Equipment Name with Broad Specifications	Relevant LLO Number
1	Simple engineering measurement devices GPS data collection tools GIS open source softwares- Google Earth and QGIS MS office suite	All

**IX. SUGGESTED WEIGHTAGE TO LEARNING EFFORTS & ASSESSMENT PURPOSE (Specification Table) : NOT APPLICABLE****X. ASSESSMENT METHODOLOGIES/TOOLS****Formative assessment (Assessment for Learning)**

- Formative assessment (Assessment for Learning) Report and presentation of fieldwork activities, Self-Learning (Assignment)

**Summative Assessment (Assessment of Learning)****XI. SUGGESTED COS - POS MATRIX FORM**

Course Outcomes (COs)	Programme Outcomes (POs)							Programme Specific Outcomes* (PSOs)		
	PO-1 Basic and Discipline Specific Knowledge	PO-2 Problem Analysis	PO-3 Design/Development of Solutions	PO-4 Engineering Tools	PO-5 Engineering Practices for Society, Sustainability and Environment	PO-6 Project Management	PO-7 Life Long Learning	PSO-1	PSO-2	PSO-3
CO1					03	03	03			
CO2					02	02	03			
CO3	01	01	01		03	03	03			
CO4		01	01	01	03	03	03			
CO5		02		01	03	03	03			

Legends :- High:03, Medium:02, Low:01, No Mapping: -

\*PSOs are to be formulated at institute level

**XII. SUGGESTED LEARNING MATERIALS / BOOKS**

Sr.No	Author	Title	Publisher with ISBN Number
1	IRAP, Hyderabad, CTARA, IIT Bombay and UNICEF, Mumbai	Compendium of Training Materials for the Capacity Building of the Faculty and Students of Engineering Colleges on 'IMPROVING THE PERFORMANCE OF RURAL WATER SUPPLY AND SANITATION SECTOR IN MAHARASHTRA' Districts Economic survey reports	UNICEF

Sr.No	Author	Title	Publisher with ISBN Number
2	Prepared by each district administration	Districts Economic survey reports	Govt. of Maharashtra
3	Local college students, UMA staffs	Sample Case Studies on UMA website	IITB-UMA team
4	Central Public Health and Environmental Engineering Organisation	Manual on Water Supply and Treatment	Ministry of Urban Development, New Delhi
5	Specifications And Standards Committee	Indian Standards (IS) Codes and Indian Roads Congress (IRC) Codes	Bureau of Indian Standards and The Indian Road Congress
6	RBI	<a href="https://www.rbi.org.in/FinancialEducation/content/GUIDE310113_F.pdf">https://www.rbi.org.in/FinancialEducation/content/GUIDE310113_F.pdf</a>	RBI
7	RBI	<a href="https://www.rbi.org.in/FinancialEducation/content/Financing%20needs%20of%20Micro%20and%20small%20Enterprises%20-%20A%20guide.pdf">https://www.rbi.org.in/FinancialEducation/content/Financing%20needs%20of%20Micro%20and%20small%20Enterprises%20-%20A%20guide.pdf</a>	RBI
8	RBI	<a href="https://www.rbi.org.in/FinancialEducation/content/I%20Can%20Do_RBI.pdf">https://www.rbi.org.in/FinancialEducation/content/I%20Can%20Do_RBI.pdf</a>	RBI

### XIII . LEARNING WEBSITES & PORTALS

Sr.No	Link / Portal	Description
1	<a href="https://gr.maharashtra.gov.in/Site/Upload/Government%20Resolutions/English/201601131501523808.pdf">https://gr.maharashtra.gov.in/Site/Upload/Government%20Resolutions/English/201601131501523808.pdf</a>	Government Resolution of Government of Maharashtra regarding Unnat Maharashtra Abhiyan
2	<a href="https://gr.maharashtra.gov.in/Site/Upload/Government%20Resolutions/English/201606151454073708.pdf">https://gr.maharashtra.gov.in/Site/Upload/Government%20Resolutions/English/201606151454073708.pdf</a>	Government Resolution of Government of Maharashtra regarding Unnat Maharashtra Abhiyan Guidelines
3	<a href="https://censusindia.gov.in/census.website/">https://censusindia.gov.in/census.website/</a>	A Website of Census of India
4	<a href="https://gsda.maharashtra.gov.in/english/">https://gsda.maharashtra.gov.in/english/</a>	A Website of Groundwater Survey and Development Agency, GoM
5	<a href="https://mrsac.gov.in/MRSAC/map/map">https://mrsac.gov.in/MRSAC/map/map</a>	A Website where district-wise maps showcasing different attributes developed by Maharashtra Remote Sensing Applications Centre.
6	<a href="https://ejalshakti.gov.in/jjmreport/JJMIndia.aspx">https://ejalshakti.gov.in/jjmreport/JJMIndia.aspx</a>	A Website of Jal Jivan Mission, Government of India
7	<a href="https://cpcb.nic.in/">https://cpcb.nic.in/</a>	A Website of Central Pollution Control Board, Government of India

**SOCIAL AND LIFE SKILLS****Course Code : 312003**

Sr.No	Link / Portal	Description
8	<a href="http://www.mahapwd.com/#">http://www.mahapwd.com/#</a>	A Website of Public Works Department, GoM
9	<a href="http://tutorial.communitygis.net/">http://tutorial.communitygis.net/</a>	A Website for GIS data sets developed by Unnat Maharashtra Abhiyan
10	<a href="https://youtu.be/G71maumVZ1A?si=TzDTxKUpLYaRos7U">https://youtu.be/G71maumVZ1A?si=TzDTxKUpLYaRos7U</a>	A video record of lecture by Prof. Milind Sohoni, IIT Bombay, on Engineering, Development and Society
11	<a href="https://youtu.be/TUcPNwtdKyE?si=wnSWrhGc9dJTC-ac">https://youtu.be/TUcPNwtdKyE?si=wnSWrhGc9dJTC-ac</a>	A keynote talk by Prof. Milind Sohoni, IIT Bombay, on Interdisciplinary Engineering: The Road Ahead
12	<a href="https://youtu.be/mKJj6j_1gWg?si=ajE8s4lfB2OM63Ng">https://youtu.be/mKJj6j_1gWg?si=ajE8s4lfB2OM63Ng</a>	A TED talk by Prof. Milind Sohoni, IIT Bombay, on Vernacular Science: The Science of Delivery
13	<a href="https://www.ugc.gov.in/pdfnews/4371304_LifeSKill_JeevanKaushal_2023.pdf">https://www.ugc.gov.in/pdfnews/4371304_LifeSKill_JeevanKaushal_2023.pdf</a>	UHV: UGC Course on life skills. Unit 4 i.e. Course 4 is to be referred
14	<a href="https://nss.gov.in/">https://nss.gov.in/</a>	NSS : Know about the NSS Scheme and details
15	<a href="https://www.rbi.org.in/FinancialEducation/FinancialEnterprise.aspx">https://www.rbi.org.in/FinancialEducation/FinancialEnterprise.aspx</a>	Reference for Module V
16	<a href="https://www.rbi.org.in/FinancialEducation/content/I%20Can%20Do_RBI.pdf">https://www.rbi.org.in/FinancialEducation/content/I%20Can%20Do_RBI.pdf</a>	Reference for Module V
17	<a href="https://www.rbi.org.in/FinancialEducation/content/Financing%20needs%20of%20Micro%20and%20small%20Enterprises%20-%20A%20guide.pdf">https://www.rbi.org.in/FinancialEducation/content/Financing%20needs%20of%20Micro%20and%20small%20Enterprises%20-%20A%20guide.pdf</a>	Reference for Module V
18	<a href="https://www.rbi.org.in/FinancialEducation/content/GUIDE310113_F.pdf">https://www.rbi.org.in/FinancialEducation/content/GUIDE310113_F.pdf</a>	Reference for Module V

**Note :**

- Teachers are requested to check the creative common license status/financial implications of the suggested online educational resources before use by the students