NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL



4 - Year B.Sc. B.Ed.
under

Integrated Teacher Education Program

(ITEP)

SCHEME OF INSTRUCTION AND SYLLABI
for B.Sc. B.Ed. Program

(Effective from 2023-24)

DEPARTMENT OF MATHEMATICS

VISION AND MISSION OF THE INSTITUTE

National Institute of Technology Warangal

VISION

Towards a Global Knowledge Hub, striving continuously in pursuit of excellence in Education, Research, Entrepreneurship and Technological services to the society.

MISSION

- Imparting total quality education to develop innovative, entrepreneurial and ethical future professionals fit for globally competitive environment.
- Allowing stake holders to share our reservoir of experience in education and knowledge for mutual enrichment in the field of technical education.
- Fostering product-oriented research for establishing a self-sustaining and wealth creating center to serve the societal needs.

VISION AND MISSION OF THE DEPARTMENT

VISION

To be among the best mathematics departments in the country, to build an international reputation as a center of excellence in mathematics and computational research, training, and education, and to inculcate mathematical thinking in order to meet the challenges and growth of science and technology, as well as the needs of industry and society, with moral and ethical responsibility.

MISSION

- To attract motivated and talented students by providing a learning environment where they can learn and develop the mathematical and computational skills needed to formulate and solve real-world problems.
- To foster an environment conducive to quality research and to train principled and highly skilled researchers with clear thinking and determination capable of meeting the dynamic challenges of science and engineering.
- To keep up with the rapid advancements of technology while improving academic standards through innovative teaching and learning processes.
- To satisfy the country's human resource and scientific manpower requirements in mathematics through learner-centered contemporary education and research.

B.Sc. B.Ed. (Secondary Stage with Major in Mathematics / Physical Sciences)

Program Educational Objectives (PEO)

PEO-1	Provide sufficient understanding of individual and group motivation and behaviour to establish a learning environment that promotes positive social interaction, critical thinking, problem-solving, and performance skills, as well as active participation in learning and self-motivation.
PEO-2	Facilitate as a deep learner and progressive careers in teaching, academia, and research organizations,
PEO-3	Communicate effectively with school colleagues, parents, and agencies in the larger community to support students, learning and wellbeing.
PEO-4	Assess the learner's continuous intellectual, social and physical development using formal and informal assessment strategies.
PEO-5	Engage in lifelong learning, career enhancement and adapt to changing professional and societal needs.

Program Articulation Matrix

PEO / Mission Statements	PEO1	PEO2	PEO3	PEO4	PEO5
To attract motivated and talented students by providing a learning environment where they can learn and develop the mathematical and computational skills needed to formulate and solve real-world problems.	2	3	2	3	2
To foster an environment conducive to quality research and to train principled and highly skilled researchers with clear thinking and determination capable of meeting the dynamic challenges of science and engineering.	3	3	3	2	2
To keep up with the rapid advancements of technology while improving academic standards through innovative teaching and learning processes	2	3	2	2	2
To satisfy the country's human resource and scientific manpower requirements in mathematics through learner-centered contemporary education and research.	3	2	3	3	3

1-Slightly; 2-Moderately; 3-Substantially

B.Sc. B.Ed. (Secondary Stage with Major in Mathematics / Physical Sciences)

Program Outcomes (POs)

PO1	Develop knowledge and understanding with a solid foundation in educational views, and the ability to build a logical conceptualization of pedagogical knowledge that they would apply to specific curriculum area
PO2	Understand the role of education and schools in promoting sustainable development; critically analyzing various theoretical perspectives on education, teaching assessment, and learning in the light of nature and diversity of the learner.
PO3	Design solutions for complex learners' behavior and learning environment and design tools or processes that meet the specified needs with appropriate consideration for public health and safety, and the cultural, societal, and environmental considerations
PO4	Able to integrate theoretical and practical knowledge of their respective subject(s) in classroom practices, as well as pursue to keep themselves up to date with advancements in their areas of specialisation, to demonstrate their commitment to continuous self-improvement by engaging in professional development activities, reflective practices to improve teaching and learning, and to contribute to the revitalization of the teaching profession
PO5	Create, select, and apply appropriate techniques, resources, ICT, and media communication techniques, including prediction and modeling to complex teaching learning activities with an understanding of the limitations
PO6	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional learning practice
PO7	Understand the impact of education technology in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development
PO8	Acquire a wide range of key life skills and abilities of communication, reflection, art, aesthetics, theatre, Yoga and teaching skills needed for planning and organizing inclusive education & effective whole classroom instruction.
PO9	Develop an ability to substantiate perspectives and pedagogical content studied with field-based experiences that are provided during pre-internship, school internship and post internship: adapt to cater to diverse needs of learners in schools; Understand and experience the real world of teaching with the help of systematic supervisory support and feedback.
PO10	Communicate effectively on teaching learning activities with the students, parents, other professionals in the learning, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's work as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

Program Specific Outcomes

PSO1	Understand basic concepts and ideas of educational theory about teaching, pedagogy, school management and community involvement
PSO2	Develop a broad theoretical foundation in mathematics/physical sciences and perspective on the nature of the learner, diversity and learning.as well as design and develop interfaces among subsystems of learning.
PSO3	Comprehend the role of the systems of governance and structural – functional provisions that support school education
PSO4	Build skills and abilities of communication, reflection, art, aesthetics, theatre, self-expression and ICT.

Structure, Credit and Stage of ITEP

Program / Curricular Component	**Credits**
Induction Program	0
Foundations of Education **(FoE)** (Common to all across stage specializations)	30
Disciplinary/interdisciplinary Specific Major/ Minor **(MAJ/MIN)**	64
Stage Specific – cum- Pedagogy **(SCP)**	16
Ability Enhancement and Value-added courses **(AEV)** (Common to all students across stage specializations)	28
School Experience, Including Internship in Teaching (Specific to State Specialization) **(SEI)**	20
Community Engagement and Service (Common to all students across stage specializations) **(CES)**	2
TOTAL	**160**

About B.Sc. B.Ed. programme

The programme is specially designed with an objective to develop an understanding of the teaching-learning process at secondary school levels among student educators. It focuses on enabling student-teachers to reflect critically on perspectives of education and integrate holistically the theory and practices to facilitate active engagement of learners for better learning and knowledge creation.

- Creating sensitivity about language diversity in classroom and its role in the teaching-learning process
- Developing an understanding in the context of education in contemporary Indian Society
- Appreciating the role of context and socio-political realities about learners in facilitating learning in inclusive settings
- Providing first-hand experience of all the school activities by engaging student-teachers as interns in secondary/senior secondary schools.
- Student-teachers to integrate and apply ICT in facilitating the teaching-learning process and in school management
- Systematizing experiences and strengthening the professional competencies of student and teachers
- Enabling student-teachers to acquire necessary competencies for organizing learning experiences
- Developing an understanding of paradigm shift in conceptualizing disciplinary knowledge in the school curriculum
- Identifying, challenging and overcoming gender inequalities in the school, classrooms, curricula, textbooks, social institutions, etc.
- Developing competencies among student-teachers to select and use appropriate assessment strategies for facilitating learning
- Engaging student-teachers with an understanding of the self, child, and school to establish close connections between different curricular areas
- The integrated degree is equivalent to UG degree and Education degree (B.Ed.) together, just in four years, helping students to save a year. (Whereas, on its own, the B.Ed. degree is of two years)
- Students will be well groomed in general subjects and pedagogy
- Immediate employment opportunities
- Opens the doors to entrepreneurship
- A builder of civilized society
- Eligible to do Masters in disciplinary subjects
- Eligibility to do Masters in Education (M.Ed.)
- A four-year degree makes one eligible for pursuing higher education in International Universities (US universities require four-year undergraduate studies)

Curriculum

B.Sc. B.Ed. (Secondary Stage with Major in Mathematics / Physical Sciences)

Course Structure

1st Semester

SNo	Course Code	Course Title		L	T	P	Credits
1	HSB131	Sanskrit		3	1	0	4
2	EDB101	Understanding India - Indian Ethos and Knowledge Systems – I		2	0	0	2
3	EDB102	Art Education - Performing and Visual - I		1	0	2	2
4	EDB103	Evolution of Indian Education		3	1	0	4
		Mathematics Major	**Physical Sciences Major**				
5	MAB101/ PHB101	Differential and Integral Calculus	Mechanics, Waves and Oscillations	3	1	0	4
6	MAB102/ MAB101	Python Programming (Minor)	Python Programming (Minor)	3	0	2	4
			Differential and Integral Calculus (Minor)	3	1	0	
7	IC001	Induction Program*		1	0	0	0
8	IC101	Extra Academic Activity – I*		1	0	0	0
			Total	**17**	**3/4**	**2/4/2**	**20**

* MNC weblink: https://www.nitw.ac.in/media/uploads/2021/10/22/mnc_1st-year.pdf

2nd Semester

SNo	Course Code	Course Title		L	T	P	Credits
1	HSB181	Communicative English		3	0	2	4
2	EDB151	Understanding India - Indian Ethos and Knowledge Systems - II		2	0	0	2
3	EBD152	Teacher and Society		2	0	0	2
		Mathematics Major	**Physical Sciences Major**				
4	MAB151/ PHB151	Ordinary Differential Equations	Heat and Thermodynamics	3	0	2	4
5	MAB152/ CYB151	Analytic Solid Geometry	General Chemistry – I	3 3	1 0	0 2	4
6	MAB153/ MAB151	Computer Programming with C (Minor)	Computer Programming with C (Minor)	3	0	2	4
			Ordinary Differential Equations (Minor)				
7	IC151	Extra Academic Activity – II*		1	0	0	0
			Total	**17**	**1/0**	**6/8**	**20**

* MNC weblink: https://www.nitw.ac.in/media/uploads/2021/10/22/mnc_1st-year.pdf

3rd Semester

SNo	Course Code	Course Title		L	T	P	Credits
1	EDB201	Child Development and Educational Psychology		3	1	0	4
2	EDB202	Basics of Pedagogy at Secondary Stage		3	1	0	4
		Mathematics Major	**Physical Sciences Major**				
3	MAB201/ PHB201	Modern Algebra	Optics	3	1	0	4
4	MAB202/ CYB201	Numerical Analysis	General Chemistry - II	3	1	0	4
5	MAB203/ MAB201	Data Structures with C (Minor)	Data Structures with C (Minor)	3	0	2	4
			Modern Algebra (Minor)	3	1	0	4
6	IC201	Mandatory Non-Credit Course *		1	0	0	0
			Total	**16**	**4/5**	**2/2/0**	**20**

*MNC weblink: https://www.nitw.ac.in/media/uploads/2021/10/22/mnc_1st-year.pdf

4th Semester

SNo	Course Code	Course Title		L	T	P	Credits
1	EDB251	Philosophical and Sociological Perspectives of Education - I		3	1	0	4
		Mathematics Major	**Physical Sciences Major**				
2	EDB252/ EDB253	Content cum Pedagogy of Mathematics at Secondary Stage - I	Content cum Pedagogy of Physical Sciences at Secondary Stage - I	3	1	0	4
3	MAB251/ PHB251	Linear Algebra	Electricity and Magnetism	3	0	2	4
4	MAB2**/ CYB251	Mathematics Major: Elective – I	Physical Chemistry	3	0	2	4
5	MAB252	Digital Computer Fundamentals (Minor)	Digital Computer Fundaments (Minor)	4	0	0	4
			Linear Algebra (Minor)	3	0	2	
			Total	**16/15**	**2**	**4/4/6**	**20**

5th Semester

SNo	Course Code	Course Title		L	T	P	Credits
		Mathematics Major	Physical Sciences Major				
1	EDB304/ EDB301	Content cum Pedagogy of Mathematics at Secondary Stage - II	Content cum Pedagogy of Physical Sciences at Secondary Stage - II	3	1	0	4
2	MAB301/ PHB301	Mathematical Analysis	Basic Electronics	3	0	2	4
3	MAB302/ CYB301	Statistics and Probability	Organic Chemistry	3 3	1 0	0 2	4
4	MAB303/ CYB302	Linear Programming	Inorganic Chemistry	3	1	0	4
5	EDB302	ICT in Education		2	0	0	2
6	EDB303	Pre-internship Practice		1	0	2	2
7	IC301	Mandatory Non-Credit Course *		0	0	2	0
			Total	**15**	**3/2**	**6/8**	**20**

*MNC weblink: https://www.nitw.ac.in/media/uploads/2021/10/22/mnc_1st-year.pdf

6th Semester

SNo	Course Code	Course Title		L	T	P	Credits
		Mathematics Major	Physical Sciences Major				
1	EDB351/ EDB356	Content cum Pedagogy of Mathematics at Secondary Stage - III	Content cum Pedagogy of Physical Sciences at Secondary Stage - III	3	1	0	4
2	MAB351/ PHB311	Vector Calculus	Modern Physics	3 3	1 0	0 2	4
3	MAB3**	Elective – II	Chemistry Elective - I	3	0	2	4
4	EDB352	Assessment & Evaluation		2	0	0	2
5	EDB353	Inclusive Education		2	0	0	2
6	EDB354	Mathematical and Quantitative Reasoning		2	0	0	2
7	EDB355	School Observation - Field Practice		1	0	2	2
			Total	**16**	**2/1**	**6**	**20**

7th Semester

SNo	Course Code	Course Title	L	T	P	Credits
1	EDB401	Perspectives on School Leadership and Management	2	0	0	2
2	EDB402	Curriculum Planning and development	2	0	0	2
3	EDB403	Art Education - Performing and Visual - II	1	0	2	2
4	EDB404	Sports, Nutrition and Fitness	1	0	2	2
3	EDB405	School Based Research Project	0	0	4	2
4	EDB406	Internship on Teaching	0	0	20	10
		Total	**6**	**0**	**28**	**20**

8th Semester

SNo	Course Code	Course Title	L	T	P	Credits
1	EDB451	Philosophical and Sociological Perspectives of Education-II	3	1	0	4
2	EDB452	Education Policy Analysis	2	0	0	2
3	EDB4**	Education - Elective	3	1	0	4
4	EDB454	Yoga and Understanding Self	1	0	2	2
5	EDB455	Citizenship Education, Sustainability and Environment education	2	0	0	2
6	EDB456	Post Internship - Reviews and Analysis	1	0	2	2
7	EDB457	Creating Teaching Learning material	1	0	2	2
8	EDB458	Community Engagement and Service	1	0	2	2
		Total	**14**	**2**	**8**	**20**

Credits in Each Semester

Cat. Code	Sem-I	Sem-II	Sem-III	Sem-IV	Sem-V	Sem-VI	Sem-VII	Sem-VIII	Total
FoE	4	0	4	4	0	4	4	10	**30**
MAJ	4	8	8	8	12	8	0	0	**48**
MIN	4	4	4	4	0	0	0	0	**16**
SCP	0	0	4	4	4	4	0	0	**16**
AEV	8	8	0	0	2	2	4	4	**28**
SEI	0	0	3	0	0	0	0	0	**6**
MNC	0	0	0	0	2	2	12	4	**20**
CES	-	-	-	-	-	-	-	2	**2**
Total	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**160**

Mathematics Major: Elective-I (4th Semester)

SNo	Course Code	Course
1	MAB261	Theory of Equations
2	MAB262	Mathematical Logic
3	MAB263	Mechanics

Mathematics Major: Elective-II (6th Semester)

SNo	Course Code	Course
1	MAB361	Integral Transforms and Applications
2	MAB362	Descriptive Statistics
3	MAB363	Mathematical Finance

Chemistry: Elective-I (6th Semester)

SNo	Course Code	Course
1	CYB351	Instrumental analysis for Industrial Application
2	CYB352	Applied Organic Chemistry
3	CYB353	Environmental Chemistry

Education: Elective (8th Semester)

SNo	Course Code	Course
1	EDB461	Education for Mental Health
2	EDB462	Guidance and Counselling
3	EDB463	Adolescence Education

DETAILED SYLLABUS

B.Sc. B.Ed. (Secondary Stage with Major in Mathematics / Physical Sciences)

The detailed syllabus for Education courses is given by NCTE and the syllabi for Mathematics, Physics and Chemistry courses will be the same as that for Integrated MSc Program (except MAB302 and it is provided)

MAB302 **3-1-0(4)**

Statistics and Probability

Pre-Requisites: None

Course Outcomes:

CO-1	It explains the important concepts of statistics and probability.
CO-2	Discuss the importance and uses of central values and dispersions for the various types of data
CO-3	Understand the correlation and regression analysis.
CO-4	Understand the properties of random variables.
CO-5	Find the properties and applications of a given probability distribution.

Syllabus:

Measures of Central Tendency: Introduction-Definitions- Types- Mean- Median- Mode -Geometric mean- Harmonic Mean- Mean-Weighted mean - Merits and Demerits.

Measures of Dispersion: Introduction – Definition – Types – Range - Quartile deviation - Mean deviation - Standard deviation - Coefficient of variation, Skewness and Kurtosis.

Random variables and their distributions: Random variables (discrete and continuous), Probability functions, Density and distribution functions, Mean and variance, two dimensional random variables joint probability mass functions, conditioning and independence Chebyshev's inequality, Markov's inequality, Chernoff bounds, Weak law of large numbers, central limit theorem, strong law of large numbers.

Probability Distributions: Bernoulli and Poisson processes. Special distributions (Binomial, Poisson, Geometric, Uniform, Exponential, and Normal).

Correlation analysis: Introduction - Definition - Types – Ungrouped and Grouped data – Probable error – properties - Rank correlation

Regression analysis: Introduction - Definition – Regression Equations - Principle of least squares for first degree, Second degree, Exponential, and Power curves-Multiple regressions.

Learning Resources:

Text Books:

1. Gupta S.C. and Kapoor V.K.: Fundamentals of Mathematical Statistics, Sultan Chand & Sons, 2020

Reference Books

1. Rohatgi, V.K.: An introduction to probability theory and mathematical statistics, John Wiley & Sons, 1984
2. Hogg. R.V. and Craig. A.T.: Introduction to Mathematical Statistics, McGraw-Hill Publishing Co., Inc., New York, 1978
3. Sanjay Arora and Bansilal: New Mathematical Statistics, Satyaprakashan, New Delhi, 1989

Education Electives

EDB461 **3-1-0(4)**

Education for Mental Health

Course Outcomes:

CO-1	To understand the nature and evolution of the discipline of mental health.
CO-2	To develop an informed perspective on the key concepts, issues and debates in the field.
CO-3	To identify and address mental health concerns and issues within the personal and social realm.
CO-4	To develop a personal reflective approach in building sensitivity towards mental health concerns within school and community settings.
CO-5	To build some basic guidance and counselling skills in student teachers

Syllabus:

UNIT-I: Mental Health: Historical and Contemporary Perspectives
History and Evolution of Mental Health, with special reference to the three forces of psychology, Key Debates and Issues in Mental Health, Mental Hygiene vs. Mental Health; Universalism vs. Cultural Relativism, Nomothetic and Idiographic approach, Statistical and Ideological Perspective, Notions of a Healthy Personality.

UNIT-II: Mental Health: A Life Span Perspective
Understanding issues of mental health at home, school and society, with reference to childhood, adolescence and young adulthood, Mental health concerns, Frustration, conflict, stress and anxiety: Sources and management. Conflict and Frustration: Sources and Management, Development of Life Skills and Building of Resilience

UNIT-III: Mental Health in Schools
School Based Issues and Concerns: Home-school continuity – discontinuity; diverse school contexts; mental health concerns of teachers, Guidance and Counselling, Concept, need and techniques, Notion of teacher as a counselor, Designing and evaluating mental health interventions and programmes

UNIT-IV: Social Issues in Mental Health
Media, technology and communication, Contemporary lifestyles and related issues, Negotiating stereotypes: Gender, caste, class, region, and religion, Gender roles and sexual orientations, Religion and Morality

Suggestive Reading Materials:

1. Bernard, H. W., Mental Hygiene for Classroom Teachers. New York: McGraw Hill, 1961
2. Patel, V. and Thara, R. (Ed),. Meeting the Mental Health Needs of Developing Countries. New Delhi: Sage Publications, 2003
3. Ranganathan, N. (Ed.), Education for Mental Health. New Delhi: Shipra, 2012
4. Nayar, U.S. (Ed.), Child and Adolescent Mental Health. New Delhi: Sage, 2012
5. Caroll, H. A., Mental Hygiene: The Dynamics of Adjustment. New York: Prentice Hall, 1952

EDB462 **3-1-0(4)**

Guidance and Counselling

Course Outcomes:

CO-1	To develop an understanding of the concepts of guidance and counseling.
CO-2	To understand the types of guidance.
CO-3	To acquaint students with different testing devices and techniques of guidance.
CO-4	To develop and understanding of the role of teacher as counselor.
CO-5	To create an awareness of the working of guidance centres.

Syllabus:

Introduction
Meaning, Nature, Need of Guidance, Functions of Guidance.

Types of Guidance
Educational Guidance - meaning, need and importance, Vocational Guidance - meaning, need and importance, Personal Guidance - meaning, need and importance.

Guidance Services
Job Analysis - concept, need, Job Satisfaction-concept, factors affecting job satisfaction, Occupational Information - concept, need.

Guidance of the Differently - Abled Students - Gifted, Slow Learners, Learning Disabilities (Dyslexia, Dysgraphia, Dyscalculia) – Identification, Mainstreaming and providing support services to Differently - Abled Students.

Counseling - meaning, purpose, scope, Types of Counseling - Directive, Non-directive, Eclectic.

Process of Counseling (introduction, in - depth, communication, suggestion), Skills in Counseling (listening, questioning, responding), Role of the Counselor, Professional Ethics of a Counselor.

Tools of Guidance and Counseling.
Psychological tests - meaning, need, limitations, Testing - Intelligence, Aptitude, Attitude, Achievement, Interest, Personality,

Techniques of Guidance and Counseling
Interview - types, procedure, Case Study, Cumulative Record, Anecdotal Record, Diary, Questionnaire

Suggestive Reading Materials:

1. **Aggarwal J. C., Educational and Vocational Guidance and Counseling, 7th Edition, Doaba House; Delhi, 2004**
2. **Chauhan S.S., Principles and Techniques of Guidance.**
3. **Gibson Robert & Mitchell Marianne, Introduction to Guidance and Counseling, 6th Edition, Prentice Hall of India, New Delhi, 2005**
4. **Kochhar S.K., Educational and Vocational Guidance in Secondary Schools, Sterling Publishers, New Delhi, 1987**
5. **Milne Aileen, Teach Yourself Counseling, McGraw Hill companies, Chicago, 2003.**
6. **Sharma Ramnath and Sharma Rachana, Guidance and Counseling in India, Atlantic Publishers and Distributors, New Delhi, 2004.**

EDB463 **3-1-0(4)**

Adolescent Education

Course Outcomes:

CO-1	To develop knowledge and sensitivity on matters related to reproductive health, sex and sexuality and communicate effectively on these issues.
CO-2	To understand about physical, physiological, psychological, socio-cultural and interpersonal issues related to the processes of growing up.
CO-3	To inculcate a healthy attitude towards sex and sexuality, respect for the opposite gender and an understanding of responsible sexual behavior.
CO-4	To develop an understanding about the desired life skills.
CO-5	To build a perspective on the socio-legal and cultural issues related to sex and sexuality.
CO-6	To acquire skills to use certain techniques such as question box, role play, value clarification and case studies, for enacting Adolescence Education Programmes.

Syllabus:

Adolescence Education:
Introduction, Understanding of physiological, socio-emotional, cognitive and cultural aspects, Adolescence Education: Concept, Need and Relevance, Issues and Challenges during Adolescence, Role of Social Agencies in Adolescence Education, School, Family, Media, Community

Life Skills Education
Understanding the need, concept, and significance of Life Skills Education, Relationship between Life Skills and Adolescence Education, Detailed study of Core Life Skills,

Sexual and Reproductive Health
Understanding Sexual and Reproductive Health, Myths and Misconceptions, STIs and HIV/AIDS: Causes, Prevention, Cure and Skills of Coping

Empowering Student Teachers
Preparation of Teachers, Dealing with personal self constraints, Socio- cultural issues, Class room issues and challenges Pedagogical Approaches to Adolescence Education, Case studies and Critical Incidents, Brainstorming, Role-playing, Buzz groups, Gaming, Value clarifications, Question Box, Discussions and Debates, Puppet shows, Role Reversal, Walkabouts, Video shows.

Suggestive Reading Materials:

1. **Agochiya, D., Life Competencies for Adolescents: Training Manual for Facilitators, Teachers and Parents. New Delhi: Sage, 2010**
2. **Archer, S.L., Interventions for Adolescent Identity Development. New Delhi: Sage, 1994**
3. **Atwater, E., Psychology for Living: Adjustment, Growth and Behaviour Today. (5thed.). New Jersey: Prentice Hall, 1994**
4. **Chowdhary, G.B., Adolescence Education. New Delhi: PHI, 2014**
5. **Dusek, J. B., Adolescent Development and Behaviour. New Jersey: Prentice Hall, 1991**