

T.Y.B.Sc.B.Ed.

Course	Subject	Marks	
		External	Internal
3101	English AECC	400	
		80	20
3102	Quality and Management of School Education Issues and Concerns	80	20
3103	Content cum Methodology Science Education	80	20
3104	Content cum Methodology Mathematics Education	80	20
Chemistry		600	
3111	Physical Chemistry I & Physical Chemistry - II	80	20
3112	Inorganic Chemistry I & Inorganic Chemistry II	80	20
3113	Analytical Chemistry I & Physical Chemistry - III	80	20
3114	Industrial Chemistry & Inorganic Chemistry - III	80	20
3115	Physical Chemistry Practical	80	20
3116	Inorganic Chemistry Practical	80	20
Physics		600	
3131	Mathematical Methods in Physics - II & Solid State Physics	80	20
3132	Electrodynamics & Quantum Mechanics	80	20
3133	Classical Mechanics & Thermodynamics and Statistical Physics	80	20
3134	Atomic and Molecular Physics & Nuclear Physics	80	20
3135	Practical Course	80	20
3136	Practical - PROJECT	80	20
Zoology		600	
3151	Pest Management Z & Medical & Forensic Zoology	80	20
3152	Histology & Animal Physiology	80	20
3153	Biological Chemistry & Molecular Biology	80	20
3154	Genetics & Entomology	80	20
3155	Zoology Practical Course	80	20
3156	Zoology Practical Course	80	20
Pedagogical Practicum		100	
3201	Practice Teaching (16 Lessons)	100	

SYBSC & SYBSC (Computer Science)

ENGLISH

(Ability Enhancement Compulsory Course-AECC)

(Choice Based Credit System-35:15-Pattern)

(w. e. f- 2020- 2021)

(02-Credit Course)

Text: *Horizons: English in Multivalent Contexts* (Board of Editors- Orient BlackSwan)

Preamble:

This is an ABILITY ENHANCEMENT COURSE. Considering the needs of students and the requirements of professional sectors, the syllabus of this paper is designed to enhance linguistic and professional skills of the students. In the age of technology, it's high time for the students to acquire and exercise the skill and sub-skills of using English in multivalent contexts.

The paper aims at a balanced up-gradation of the students, focussing on their ability enhancement. Hence, to avoid a lopsided professional development, the humane values are also taken care of by accommodating literature section in the syllabus. The other units cater to the needs of enhancing speaking ability, writing ability, the ability to face an interview, the ability of using soft skills effectively while planning one's work and working on the plans. By and large, the present syllabus is an attempt to galvanise the existing competencies of the students and enhancing their abilities for a better performance and better results.

Objectives:

1. To introduce the use of English in multimedia
2. To acquaint the students with the language skills in multivalent contexts
3. To acquaint and enlighten students regarding the speaking skill in various contexts
4. To acquaint and familiarize the students with advanced writing skills in different contexts
5. To acquaint and familiarize the students with soft skills
6. To minimize the gap between the existing communicative skills of the students and the skills they require at professional level
7. To develop competence among the students to appreciate and analyze short stories and poetry

Semester-III

Text: *Horizons: English in Multivalent Contexts* (Board of Editors- Orient BlackSwan)

Content-

UNIT-I- LITERATURE

10 Clock Hours

1. **Short Story:**
 - i) 'A Shadow': R. K. Narayan
2. **Poetry:**
 - i) La Belle Dame sans Merci: John Keats
 - ii) Where the Mind is without Fear: Rabindranath Tagore

UNIT-II-CONVERSATIONAL SKILL

10 Clock Hours

(Sample Dialogues, Useful Expressions and Exercises)

1. Introducing Yourself and Others
2. Asking, Giving and Refusing Permission
3. Describing Daily Routine
4. Complaining and Apologizing
- 5.

UNIT-III-INTERVIEW TECHNIQUES

10 Clock Hours

1. Job Application Letter
2. Resume Writing
3. GDPI
4. Presentations

Semester-IV

Text: *Horizons: English in Multivalent Context* (Board of Editors- Orient BlackSwan)

UNIT-I-LITERATURE

10 Clock Hours

1. **Short Story:**
 - i) My Lost Dollar: Stephen Leacock
2. **Poetry:**
 - i) The Bird Sanctuary: Sarojini Naidu
 - ii) Stopping by Woods on a Snowy Evening: Robert Frost

UNIT-II-WRITING SKILLS

10 Clock Hours

(Sample Passages, Useful Techniques and Exercises)

1. Notices
2. Agenda
3. Minutes
4. Content Writing

UNIT-III-SOFT SKILLS AND PERSONALITY DEVELOPMENT

(Sample Situations, Useful Techniques and Exercises)

10 Clock Hours

1. An Introduction to Soft Skills
 2. SWOC Analysis
 3. Goal Setting
 4. Project Management
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BIBLIOGRAPHY:

1. Adair, John. Effective Communication, London: Par. Macmillan Ltd. 2003.
2. Amos, Julie-Ann. Handling Tough Job Interviews. Mumbai: Jaico Publishing, 2004.
3. Baron, N.S., (2008). Always On: Language in an Online and Mobile World. Oxford University Press. Oxford.
4. Borg, James.(2010). Body Language: 7 Easy Lessons to Master the Silent Language. FT Press.
5. Collins, Patrick. Speak with Power and Confidence. New York: Sterling, 2009.
6. Kroehnert, Gary. Basic Presentation Skills. Sidney: McGraw Hill, 2010.
7. Linda B., Iris V. (2001). Intercultural Communication in the Global Workplace. 2nd Edition. Tata McGraw
8. Mitra, B. (2011). Personality Development & Soft Skills. 1st edition. Oxfor.
9. Moore, Ninja-Jo, et al. Nonverbal Communication: Studies and Applications. New York: Oxford University Press, 2010.
10. Nelson, Paul E. & Judy C. Pearson, Confidence in Public Speaking.
11. Prasad, H. M. How to Prepare for Group Discussion and Interview. New Delhi: Tata McGraw-Hill Publishing Company Limited, 2001.
12. Pease, Allan. Body Language. Delhi: Sudha Publications, 1998.
13. Raman, Meenakshi & Sangeeta Sharma. Technical Communication: Principles and Practice. Second Edition. New Delhi: Oxford University Press, 2011.

14. Rutherford, Andrea J. Basic Communication Skills for Technology: Second Edition. Delhi: Pearson Education, 2007.

15. Sharma, R. C. & Krishna Mohan. Business Correspondence and Report Writing: Third Edition. New Delhi: Tata McGraw-Hill Publishing company Limited, 2007.

WEB LINKS:

<http://networketiquette.net/>

<https://public.wsu.edu/~brians/errors/>

http://users3.ev1.net/~pamthompson/body_language.htm

<http://www.albion.com/netiquette/corerules.html>

http://www.bbc.co.uk/worldservice/learningenglish/radio/specials/1535_questionanswer/page15.shtml

<http://www.colostate.edu/Depts/Speech/rccs/theory44.html>

<http://www.dailywritingtips.com/>

EVALUATION PATTERN

Considering the choice-based credit system (CBCS) and the semester pattern, both Semesters-III & IV will have a uniform evaluation pattern of **50 marks** each. There will be an '**Internal Examination**' for **15 marks** and **Semester-end Examination** for **35 marks**.

The Internal Examination for **15 marks** will be conducted in two parts.

1) Practical Examination for 05 marks:

(The choices like Group Discussion, Mock Interviews, Seminar, Project Presentation, Role Play, Home Assignment, Library Work, Lecture Notes etc. can be considered.)

2) A Mid-semester Written Test for 10 marks:

The Mid-semester Written Test will be based on the book prescribed for the syllabus. The test aims at assessing students' writing competence in general. Hence, descriptive and essay type questions can be considered while setting the question paper.

Semester-end Examination:

The Semester-end Examination will have a uniform question paper pattern for both semesters. The pattern of the question paper is given below.

SEMESTER-END EXAMINATION

Question Paper Patterns (III & IV)

Marks: 35

Time: 2 Clock Hours

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Instructions:

1. All questions are compulsory.
 2. Figures to the right indicate full marks.
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- Q.1) Long-answer question on Unit-1
(Any 1 out of 2) (15)
- Q.2) Short notes on Unit-2
(Any 2 out of 3) (10)
- Q.3) Short notes on Unit-3
(Any 2 out of 3) (10)

COURSE 103 T.Y.B.A/B.Sc.B.Ed

QUALITY AND MANAGEMENT OF SCHOOL EDUCATION – ISSUES AND CONCERNS**Objectives:- To enable student teachers to**

- 1) Understand the concept of quality
- 2) Enlist the dimensions of quality
- 3) Understand the concept of Management.
- 4) Acquire knowledge regarding the concept and process of Human Resource Management in School
- 5) Get acquainted with the essential infrastructural resources for quality management.
- 6) Identify the problems and its management in Secondary Education.
- 7) Recognize Management and Administrative set up in education.

Unit 1: Fundamentals of Management and Quality Management (One Credit)

- 1) Meaning and Functions of Management.
- 2) Modern Theories of Management – Henry Fayol and Peter Drucker
- 3) SWOT Analysis and Introduction to Six Sigma process in Education.
- 4) Quality- concept and dimensions
- 5) TQM in Education
- 6) Types of Management-
 - a) Time Management
 - b) Event Management
 - c) Classroom Management.

Unit 2: Human Resource Development in Schools (One Credit)

- 1) Human resource development – Concept, aspects and processes
- 2) Leadership styles
- 3) Role and Qualities of Human Resource-
 - a) Teachers
 - b) Supervisor and Headmaster
 - c) Parents
- 4) Training and Development of Human Resources
 - a) Pre-service
 - b) In-service

Unit 3: Infrastructural Resources in School (One Credit)

- 1) Essential infrastructural resources in schools- norms and standards
- 2) Quality Management of Infrastructural Resources
 - a) Creation
 - b) Maintenance
 - c) Optimum Use

Unit 4: Management of problems in Secondary school (One Credit)

- 1) Problems in secondary schools:
 - a) Wastage and Stagnation
 - b) Crowded Classes
 - c) Discipline in Schools
 - d) Vocationalization of education
 - e) Disaster Management in schools
- 2) Management of problems
 - a) By research and development
 - b) By Action Research
- 3) Role of Government policies- SSA, RTE 2009 , RMSA
- 4) Teachers Professional Organization
 - a) Secondary Teachers Association
 - b) Subject Teachers Association

Unit 5: Managerial and Administrative setup in Education (One Credit)

- 1) Introduction to Maharashtra private school act 1981
- 2) Government administrative set up and authorities
- 3) Structure and Functions of – NCERT, SCERT, CBSE, SSC and HSC Board, Balbharati.
- 4) Issues and concerns in management of education

Practical (any one)

- 1) Planning and implementation of any one event in school.
- 2) Prepare an outline of Research Problem
- 3) Study of School Management- Management of Infrastructural facilities in school.

References

- 1) K.S. Bhat, S. Ravishankar - Administration of Education, Seema Publication, Delhi 07.
- 2) Dr. J.S. Walia - Foundation of school administration and organization, Paul Publisher, N - N 11, Gopal Nagar Jalandhara City (Panjab)
- 3) Kochhar S.K. - Secondary School administration
- 4) Agarwal J.C. - School organization, Administration and Management, Doaba House, Delhi 06.
- 5) Agarwal J.C. - Development and Planning of Modern Education.
- 6) Mathur S. S. (1990) - Educational Administration and Management, The Indian Publications, Ambala Cantt.
- 7) Richard D. Freedman (1982) - Management Education, John Waliaand sons, New York.
- 8) Rai B.C. - School Organization and Management, Prakashan Kendra, Lucknow.

SCIENCE EDUCATION

Unit I: INTRODUCTION OF SCIENCE: **1/2 CREDIT**

- 1.5 Place of Science in Curriculum
- 1.6 Importance of Science
- 1.7 Objectives of Science
- 1.8 Correlation – Concept, Importance and Types

Unit II: TEACHING-LEARNING OF SCIENCE: **1 CREDIT**

- 2.1 Lectures cum Demonstration
- 2.2 Laboratory
- 2.3 Project
- 2.4 Heuristic
- 2.5 Activity Based Teaching

Unit III: SUBJECT ANALYSIS: **1/2 CREDIT**

- 3.1 Structure of Science
- 3.2 Syllabus and Curriculum – Concept
- 3.3 Core elements, Values and Life Skills
- 3.4 Text Book Analysis
- 3.5 Content Analysis

Unit IV: LEARNING RESOURCES AND SCIENCE TEACHER: **1/2 CREDIT**

- 4.1 Concept, Need and Importance of Learning Resources
- 4.2 Types of Learning Resources (Traditional and Technology based)
- 4.3 Science Laboratory
- 4.4 Science Exhibition, Science Excursion (Field Trip)
- 4.5 Science Teacher – Qualities and Competencies
- 4.6 Constructivism in Science Teaching
- 4.7 Development of Scientific Attitude through Science Teaching
- 4.8 Technology based Science Teaching
- 4.9 Removal of Superstitions through Science

संदर्भ सूची

१. डॉ. अनंत जोशी - आशययुक्त अध्यापन.
२. कदम बोंदार्डे - शास्त्र आशययुक्त अध्यापन पद्धती.
३. प्रा. बोंदार्डे - विज्ञान अध्यापन.
4. Sharma and Sharma Nair - Teaching of Science.
5. Ghansham Das - Teaching of Science.
6. Dr. Borse - Science Education.

MATHEMATICS EDUCATION**Unit I: INTRODUCTION OF MATHEMATICS: 1/2 CREDIT**

- 1.1 Place of Mathematics in Curriculum
- 1.2 Importance of Mathematics
- 1.3 Objectives of Mathematics
- 1.4 Correlation – Concept, Importance and Types

Unit II: TEACHING-LEARNING OF MATHEMATICS: 1 CREDIT

- 2.1 Inductive Deductive
- 2.2 Experimental
- 2.3 Analytic Synthetic
- 2.4 Heuristic
- 2.5 Project Based Teaching

Unit III: SUBJECT ANALYSIS: 1/2 CREDIT

- 3.1 Structure of Mathematics
- 3.2 Syllabus and Curriculum – Concept
- 3.3 Core elements, Values and Life Skills
- 3.4 Text Book Analysis
- 3.5 Content Analysis

Unit IV: LEARNING RESOURCES AND MATHEMATICS TEACHER 1/2 CREDIT

- 4.1 Concept, Need and Importance of Learning Resources
- 4.2 Types of Learning Resources
- 4.3 Mathematics Laboratory
- 4.4 Mathematics Exhibition, Mathematics Club
- 4.5 Mathematics Teacher – Qualities and Competencies
- 4.6 Development of Mathematical Outlook through Mathematics teaching
- 4.7 Technology based Mathematics Teaching

References:

संदर्भ सूची

१. डॉ. पोंक्षे, डॉ. मखिजा - गणित अध्यापन.
२. डॉ. गागरे, - गणित विषयज्ञान.
३. डॉ. चव्हाण - गणित आशययुक्त अध्यापन.
४. डॉ. ह. ना. जगताप - गणित अध्यापन पद्धती.
5. Eleccher - Teaching of Mathematics.
6. Sidhu and Agarwal - Teaching of Mathematics