BHAKTA KAVI NARSINH MEHTA UNIVERSITY- JUNAGADH

Standard Operating Procedure (SOP)

For awarding Undergraduate Certificate, Diploma and Degree after exit of first year, second year and third year under NEP- 2020

1. Introduction

The National Education Policy (NEP) 2020 introduces a flexible framework for undergraduate education, allowing students to exit after the first, second or third year of under Graduation with appropriate certifications. This flexibility is operationalized through the curriculum and Credit framework for Undergraduate programmes (CCFUP) issued by the University grants Commission dtd. 12/12/2022 along with standard Operating procedure (SOP) and government resolution No. KCG/admin/2023-24/0607/kh1, dtd.11/07/2023 issued by Education Department, Government of Gujarat.

2. Objective

This Sop Provides Comprehensive information on the processes involved in awarding certificates, diplomas and degree after exiting the first, second and third years to eligible students respectively.

3. Provision of Awarding UG Certificate, UG Diploma, and Degrees

1. **UG Certificate:** Students who opt to exit after completion of the first year and have secured 44 credits will be awarded a UG certificate if, in addition, they complete Internship or one vocational course of 4 credits related to major discipline of respective degree program. These students are allowed to re-enter the degree programme within three year and complete the degree programme within the stipulated maximum period of seven years.

2. **UG Diploma**: Students who opt to exit after completion of the second year and have secured 88 credits will be awarded the UG diploma if, in addition they complete internship or one vocational course of 4 credits related to major discipline of respective degree program. These students are allowed to re-enter within a period of three years and complete programme within the maximum period of seven years.

3. **3-Year UG Degree:** Students who opt to exit after completion of the third year and have secured 132 credits will be awarded the Degree in major discipline with 50% of total credits of respective degree program. These students are allowed to re-enter within a period of three years and complete the degree programme within the maximum period of seven years.

4. **4-year UG Degree (Honours):** A four- year UG Honours degree in the major discipline with 50% of total credits will be awarded to those who complete a four-year degree programme with 176 credits.

5. **4-year UG Degree (Honours with Research):** students who secure 75% marks and above in the first six semesters and wish to undertake research at the undergraduate level can choose a research stream in the fourth year. They should do a research project or dissertation under the guidance of a faculty member of the University/College. The research project/dissertation will be in the major discipline. The students who secure 176 credits and 50% credits in major discipline, including 12 credits from a research project/dissertation, are awarded UG Degree (Honours with research) in major discipline.

4. Credit Framework

There are following Three/Four – Years UG programme with Multiple Entry and Multiple Exit Options as per government resolution No. KCG/admin/2023-24/0607/kh1, dtd.11/07/2023 issued by Education Department Government of Gujarat.

NCrF Credit Levels	Qualification Title	Credit Requirements	No. of Semesters	Year	Remarks
4.5	UG Certificate	44+4	2	1	Internship/Vocational Course of 4 credits in addition to 44 credits are required to get Ug certificate
5.0	Ug Diploma	88+4	4	2	Internship/Vocational course of 4 credits in addition to 88 credits are required to get UG Diploma
5.5	Three Year Bachelor's Degree	132	6	3	132 Credits include compulsory Internship of 4 Credits
6.0	Bachelor's Degree Honours OR Bachelor's Degree Honours with Research	176	8	4	

5. Role of the Student

1. Student who wish to get certificate or diploma after completion of first year securing 44 credits and 88 credits respectively, need to accomplish internship/vocational course of 4 credits in relevant filed.
2. Student wo wish to get degree after completion of third year securing 132 credits need to intimate to department/college for exit from respective program by application.
3. Student shall have to intimate to department/college for joining of Internship/vocational course offered by the university in respective program/faculty by application.
4. Student shall have to pay fees of vocational course as prescribed by the university, if any.
5. Student shall have to intimate to department/college on successful completion of Internship/vocational course offered by the University in respective program/faculty by application.
6. Student can re-enter within a period of three years after exit of the program from first, second or third year and complete the degree programme within the maximum period of seven years.
7. Application and payment for certificate / diploma as per schedule announced by the University.

6. Role of the Department/College

1. On receipt of application from the student for exit after completion of first year or second year to get certificate or diploma respectively, department/college shall ensure the student has secured 44 or 88 credits and opted the internship or vocational course in relevant filed for certificate or diploma respectively and shall forward the details to the University (Examination section).

2 On receipt of application from the student for exit after completion of third year, department/college shall ensure the student has secured 132 credit and shall forward the details to the University (Examination Section).

3. Department/college shall conduct the both examinations i.e. CCE &SEE as per guidelines of NEP- 2020 and submit the marks to the University (Examination Section).

4. On receipt of application from the student regarding completion of internship/vocational course in relevant filed, department/college shall ensure the student has successfully completed the internship/vocational course and shall forward the details to the University (examination section) and update the marks of internship/vocational course through online portal of the university.

5. Department/college is responsible for allocating a teacher as a coordinator for internship and further communication with concern agency/institution/company/industry as per SOPs issued by the University.

6. Department/college should provide guidance to students regarding exit options and the implications for their academic and professional trajectories. This includes counselling on career paths and further educational opportunities.

7. Role of the University

1. The University will monitor the implementing of the SOPs issued by the Government of Gujarat, ensuring that exit options are available and properly administered. This involves overseeing the adherence to the Curriculum and Credit framework and ensuring that department/college comply with the established guidelines.

2. The University will frame the vocational courses along with the fees of various disciplines/faculty/specialization through Board of studies, Faculty and Academic Council.

3. On receipt of the information of marks of internship/vocational course through online portal from the department/college, University shall award the certificate and diploma to eligible students who exit after the first or second year respectively.

4. The University shall issue certificate duly signed by registrar to the candidates who have successfully completed the internship/vocational course at the end of the first year/second year as the case may be.

Proforma for Application to intimate joining of internship/vocational Course after completion of First/Second Year to get Certificate/Diploma.

[Student's Name]
[Student's Roll Number]
[Student's Course & Year]

[Date]

To,

The Principal,
[Name of College]
[College Address]

Sub: Application to intimate joining of Internship/Vocational Course after completion of first/second year to get certificate/diploma.

Respected Sir/Madam,

I, *[Student's Name],* have successfully completed the First Year/Second Year of *[Name of program]* in the *[Month and Year]* from *[Name of college]* and wish to exit from the program.

I Would like to inform you that I have joined an internship at *[Name of Company]/Vocational course* offered by [Name of college/University] from [start Date] to get certificate/diploma after exit of first year/second year of [Name of program].

I am attaching the marksheets of First year and/Second year of [Name of program] and details of the internship/vocational course for reference.

I will comply with all academic requirements and complete internship/vocational course as per the guidelines of the University.

Yours Sincerely,

[Student's Name & Signature]
[Student's Mobile Number]
[Student's Email ID]

Encl: 1. Copy of Marksheets
2. Details of internship/vocational course

Proforma for Application to intimate the Completion of Internship/vocational Course after completion of First/Second Year to get Certificate/Diploma.

[Student's Name]
[Student's Roll Number]
[Student's Course & Year]

[Date]

To,
The Principal,
[Name of College]
[College Address]

Sub: Application to intimate Completion of Internship/Vocational Course after completion of first/second year to get certificate/diploma.

Respected Sir/Madam,

I, [Student's Name], have successfully completed the First Year of [Name of program] in the [Month and Year] from [Name of College/Department] and wish to exit from the program.

I Would like to inform you that I have Successfully completed an internship at [Name of Company]/Vocational course offered by [Name of college/University during [Start Date and End Date] to get certificate/diploma after exit of first year/second year of [Name of program].

I am attaching the completion certificate of internship/marksheet of vocational course for reference.

I request you to kindly do the needful to award certificate/diploma.

Yours Sincerely,

[Student's Name & Signature]
[Student's Mobile Number]
[Student's Email ID]

Encl: 1. Completion Certificate of internship/marksheet of vocational course

Proforma to intimate the joining of internship/vocational Course after completion of first/second year to get certificate/diploma to the University by College.

On letter head of the College/Department

[No.]
[Date]

To,
The Controller of Examinations,
Bhakta Kavi Narsinh Mehta University, Junagadh

Sub: Intimation of joining of Internship/Vocational Course after completion of first/ Second year to get certificate/diploma.

Respected Sir/Madam,

With reference to above mentioned subject, we would like to inform you that the following students from our college have successfully completed the First Year/Second Year and wish to exit from the program. They have joined the internship/vocational course to get certificate/diploma after exit as per details attached herewith.

Sr. No.	Enrolment No.	Name of Student	Name of Program	Year Completed (First/Second)	Credit Earned (44/88)	Course joined (Internship/ Vocational course)	Certificate/ Diploma

Kindly take the note of it.

Yours faithfully,

[Principal's Name & Signature]

Encl: As above

Proforma to intimate the completion of Internship/Vocational Course after completion of first/second year to get certificate/diploma to the University by College/Department.

On letter head of the College/Department

[No.]
[Date]

To,
The Controller of Examinations,
Bhakta Kavi Narsinh Mehta University, Junagadh

Sub: Intimation of completion of Internship/Vocational Course after completion of first/ Second year to get certificate/diploma.

Respected Sir/Madam,

With reference to above mentioned subject, we would like to inform you that the following students from our college have successfully completed the First Year/Second Year and wish to exit from the program. They have completed the internship/vocational course to get certificate/diploma after exit as per details attached herewith.

Sr. No.	Enrolment No.	Name of Student	Name of Program	Year Completed (First/Second)	Credit Earned (44/88)	Course Completed (Internship /Vocational course)	Certificate/ Diploma

We have informed the students to apply and pay the fees for certificate/diploma as per schedule announced by the University. Kindly issue the certificate/diploma as requested by the students.

Yours faithfully,

[Principal's Name & Signature]

Encl: As above

Proforma for Application to intimate to exit from the Third Year of Program

[Student's Name]
[Student's Roll Number]
[Student's Course & Year]

[Date]

To,
The Principal,
[Name of College]
[College Address]

Sub: Application to intimate exit from the third year of Program

Respected Sir/Madam,

I, [Student's Name], have successfully completed the Third Year of [Name of program] in the [Month and Year] from [Name of college/Department] and wish to exit from the program.

I am attaching the marksheets of First year and/Second/Third year of [Name of program] and details of the internship/vocational course for reference.

I will submit online application for award for degree as and when announced by the university along with prescribed fees.

Yours Sincerely,

[Student's Name & Signature]
[Student's Mobile Number]
[Student's Email ID]

Encl: 1. Copy of Marksheets
2. Details of internship/vocational course

Proforma to intimate regarding exit of students after third year to get degree to the the University by College/Department.

On letter head of the College/Department

[No.]
[Date]

To,
The Controller of Examinations,
Bhakta Kavi Narsinh Mehta University, Junagadh

Sub: Intimation of students after third year to get degree to the University by College/Department.

Respected Sir/Madam,

With reference to above mentioned subject, we would like to inform you that the following students from our college have successfully completed the Third Year and wish to exit from the program to get degree.

Sr. No.	Enrolment No.	Name of Student	Name of program

We have informed the students to apply and pay the fees for degree as per schedule announced by the University. Kindly issue the degree as requested by the students.

Yours faithfully,

[Principal's Name & Signature]

ENGLISH

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of English
Subject: SCOPE
Effective from June 2025

Exit Course -1 (Certificate Course)
(After Completion of First Year)

The Cambridge English Placement Test (CEPT) is a fast, accurate and affordable online test designed to evaluate learners' level of English and relate it to the Common European Framework of Reference (CEFR) Pre A1 -C2. It is developed by the Cambridge English Language Assessment

CEPT is an online test of General English used for candidate placement purposes. The 30-minute test focuses on the skills of Reading, Use of English and Listening. CEPT is an adaptive test, so, based on the students' answers, the test becomes progressively easier or more difficult until a consistent level of ability is achieved, and the students' level of English can be identified. The results are instant, presented in a clear, easy-to-understand report. The score is based on a scale from 0 to 50 converted into the Common European Framework of Reference (CEFR) from below A1 to C levels.

CEPT (Cambridge English Placement Test) is a General English test for an initial evaluation of the candidates' language knowledge from below A1 to C levels of the Common European Framework of Reference (CEFR)

The test reliability, safety and flexibility are the major benefits to the user. It gives to the customer a ready-to-use evaluation tool, and it helps avoiding all stages of preparation, printing, administration and correction of the test.

Students after completion of first year wish to apply for exit course have to appear in SCOPE exam and obtain minimum A grade for the certification. The link for SCOPE is given here.

https://scope.gujgov.edu.in/cept.jsp

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of English
Subject: Introduction to Functional English
Effective from June 2025

Exit Course -2 (Diploma Certificate)
After Completion of Second Year

Programme	Exit Course -2		**Internal Marks**	30
Course Type	Vocational Course		**External Marks**	70
Course Credit	04			
Teaching Hours	60			
Course Title	Introduction to Functional English		**Total**	100
			Exam Duration	3 Hours

COURSE OBJECTIVE:

The course is built around two primary objectives. The first objective is to introduce learners to the fundamental and advanced aspects of the English language as a powerful and versatile medium of communication across a wide range of domains. This includes enhancing proficiency in oral and written communication, fostering clarity, coherence, and creativity in expression, and cultivating an understanding of audience dynamics in spoken interactions. The second objective is to acquaint learners with the specialized use of English in select professional fields, under the framework of English for Specific Purposes (ESP). These fields include, but are not limited to, Business, Media and Journalism, Banking and Financial Services, Academic and Research contexts, Information and Communication Technology (ICT), Computer Applications, Healthcare, Nursing, Hospitality, Tourism, and other service-oriented industries. Each domain demands a particular set of vocabulary, tone, communicative style, and functional language, which the course aims to systematically address.

COURSE OUTCOME:

Upon successful completion of this MOOC on Introduction to Functional English, learners will be able to:

1. Demonstrate effective oral and written communication skills suitable for professional, academic, and social settings by applying principles of clarity, coherence, and context.
2. Apply appropriate language functions and styles in specialized professional domains such as Business, Media, Banking, Healthcare, Academics, ICT, and Hospitality through the use of ESP frameworks.
3. Develop critical understanding of communication processes, audience response, and strategies for effective interaction in both formal and informal scenarios.
4. Compose a variety of professional documents including reports, proposals, research papers, business letters, and media content, using structured and goal-oriented English.
5. Exhibit enhanced language proficiency and confidence to communicate in the 21st-century global workplace, making them more employable and career-ready.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**Module 1:** Communicating through English in the 21st Century **Module 2:** Importance of Skills in the 21st Century **Module 3:** The Essentials of Written Professional Communication **Module 4:** Language and Literary Skills **Module 5:** ESP and Language Skills **Module 6:** English as the Global Lingua Franca **Module 7:** Ideas of Communication **Module 8:** Communication Skills **Module 9:** Oral Communication **Module 10:** Effective Communication	
2	**Module 11:** Grammar in Context **Module 12:** Modals in Conversation **Module 13:** Formal and Informal Speech **Module 14:** Features of Written Technical Communication **Module 15:** Report and Proposal Writing **Module 16:** Business Correspondences **Module 17:** Structure of Writing in English **Module 18:** Letter Writing **Module 19:** Column Writing and Press Release **Module 20:** Note Taking and Note Making	
3	**Module 21:** Soft Skills and Language **Module 22:** Public Speaking Skills **Module 23:** Interview Skills **Module 24:** English for 21st Century Business World **Module 25:** English for Marketing **Module 26:** English for Banking and Finance **Module 27:** English for Media **Module 28:** English for News Writing **Module 29:** English for Journalists **Module 30:** English for Anchoring	
4	**Module 31:** English for Academic Writing **Module 32:** Writing a Research Paper in English **Module 33:** Acquiring Academic Vocabulary **Module 34:** English for Computers **Module 35:** English for Internet and World Wide Web **Module 36:** English for Nursing and Health Care I **Module 37:** English for Nursing and Health Care II **Module 38:** English for Hospitality Professionals **Module 39:** English in Tourism **Module 40:** English for 21st Century Emerging Fields	

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Note: This course is SWAYAM online course. The link of the Course is provided here. The students need to follow all the guidelines of the SWAYAM course.

https://onlinecourses.swayam2.ac.in/nou25_hs24/preview

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of English
Subject: Communicative English
Effective from June
2025

Exit Course -2 (Diploma Certificate)
After Completion of Second Year

Programme	Exit Course -2		**Internal Marks**	30
Course Type	Vocational Course		**External Marks**	70
Course Credit	04			
Teaching Hours	60			
Course Title	Communicative English		**Total**	100
			Exam Duration	3 Hours

COURSE OBJECTIVE:

The objective of this course is to equip students with a comprehensive understanding of the English language through the development of its four essential skills—listening, speaking, reading, and writing. It aims to enhance students' communicative competence and language proficiency for both academic excellence and professional success. The course also focuses on strengthening application-based skills such as interpersonal communication, interview techniques, people management, and presentation abilities, thereby preparing students effectively for employment opportunities.

COURSE OUTCOME:
Upon successful completion of this course, students will be able to:

1. Demonstrate proficiency in the four core language skills: listening, speaking, reading, and writing.
2. Communicate effectively in academic, social, and professional contexts using appropriate vocabulary and grammar.
3. Apply interpersonal and people skills to build positive relationships and work efficiently in team settings.
4. Exhibit confidence and clarity in interviews and formal interactions.
5. Prepare and deliver impactful presentations tailored to diverse audiences.
6. Utilize communicative strategies to enhance employability and career readiness.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
Unit-1	Module 1 - Introduction To The Theory of Communication Module 2 - Types of Communication Module 3 - Modes of Communication Module 4 - Four-Fold Skills –The Theoretical Side of The Four Skills Module 5 - Reading: A Passive Skill – Its Importance Module 6 - Ten Important Reading Strategies And Their Benefits Module 7- Listening: Importance And Benefits of Listening Skill Module 8 - Different Types of Listening	15

	Module 9 - Strategies for Improving Listening	
Unit-2	Module 10 – Importance of Speaking as an Active Skill Module 11 – Grammar, Vocabulary and Phonetics: Tools of Communicative English Module 12 – Fundamentals of Grammar – Part 1 Module 13 – Fundamentals of Grammar – Part 2 Module 14 – Fundamentals of Phonetics Module 15 – Strategies for Effective Communication and Speaking Skills Module 16 – Techniques for Effective Public Speaking Module 17 – Group Discussion and Interview Skills Module 18 – Role and Importance of English as a Means of Communication	15
Unit-3	Module 19 – Presentation Skills Module 20 – People Skills Module 21 – Academic & Creative Writing Module 22 – Different Styles of Writing Module 23 – Tips to Improve Writing Skills Module 24 – Fundamentals of English Usages Module 25 – Making Notes and Resume Module 26 – Report Writing Module 27 – Drafting an Academic Project	15
Unit-4	Module 28 – Fundamentals of Intonation Module 29 – Correspondence Writing Module 30 – Means to Enhance Vocabulary and IELTS Score Module 31 – Content Writing Module 32 – Three Levels of English Language Proficiency Module 33 – Close Reading Module 34 – Professional Communication and Jargons Module 35 – English as a Global Language Module 36 – English for Careers Module 37 – Business English Module 38 – Comprehension, Summary and Paraphrasing Module 39 – Research Methodology and Documentation	15

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Web Resources:

- https://www.britishcouncil.in/english/courses-adults/levels/c2
- https://www.ielts.org/for-organisations/comparing-ielts-to-other-tests
- https://preply.com/en/blog/english-language-levels/
- https://ud.ac.ae/files/icdc_interview.pdf
- http://www.globalenglish.com/blog/2014/06/10/indian-employers-report-business-english-is-essential-totheir-workforce/

Note: This course is SWAYAM online course. The link of the Course is provided here. **The students need to follow all the guidelines of the SWAYAM course.**
https://onlinecourses.swayam2.ac.in/cec25_hs15/preview

- Students need to get A Grade (minimum) in SCOPE Exam to complete Exit Course-1 for obtaining Certificate after completion of one year (Two Semesters)
- Students need to complete Exit course 2 (Introduction to Functional English) *or* Exit course-2 (Communicative English) to obtain Diploma Certificate after completion of Two years (Four Semesters)

GUJARATI
CERTIFICATE COURSE

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of
Subject: GUJARATI
Effective from June 2025

Programme	**UG**	**Internal Marks**	**40**
Course Type	**Vocational Exit Course for Certificate Course**	**External Marks**	**60**
Course Credit	**04**	**Practical Internal**	
Teaching Hours	**60**	**Practical External**	
Course Title	**સાહિત્ય અને પ્રાદેશિક ઈતિહાસ**	**Total**	**100**
		Exam Duration	**1 hour**

COURSE OBJECTIVE:

- આ અભ્યાસક્રમ દ્વારા વિદ્યાર્થીઓ પ્રાદેશિક ઇતિહાસથી પરિચિત થશે.
- આ અભ્યાસક્રમ દ્વારા વિદ્યાર્થીઓ સોરઠના ઇતિહાસથી પરિચિત થશે.
- આ અભ્યાસક્રમ દ્વારા વિદ્યાર્થીઓ સાહિત્યમાં જોવા મળતા ઇતિહાસથી પરિચિત થશે.

COURSE OUTCOME:

- ગુજરાતી ભાષાના વિદ્યાર્થીઓમાં ઈતિહાસ પ્રત્યે રુચિ થશે.
- ગુજરાતી ભાષાના વિદ્યાર્થીઓમાં પ્રાદેશિક ઈતિહાસ અંગે જાણશે અને લગાવ થશે.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	• **સાહિત્ય અને સોરઠનો ઈતિહાસ** • **જૂનાગઢનો ઈતિહાસ અને સાહિત્ય** ૧,સોરઠનો સાહિત્યમાં ઉલ્લેખ ૨,નવલકથામાં સોરઠ ૩,સોરઠ બાવની અને આરઝી હકુમત	**20**
2	• **સોમનાથનો ઈતિહાસ અને સાહિત્ય** • **દ્વારકાનો ઈતિહાસ અને સાહિત્ય** ૧,સાહિત્યમાં સોમનાથ ૨,સોમનાથ વિષયક નવલકથાઓ ૩,સાહિત્યમાં દ્વારકાનો ઈતિહાસ	**20**
3-4	• ઐતિહાસિક સ્થળોની મુલાકાત અને સ્થાનિક ઈતિહાસ વિષે લેખ • દફતર ભંડારોની મુલાકાત અને તેની કાર્ય પદ્ધતિ વિષે તાલીમ ૧,અભિલેખાગારની મુલાકાત	**60**

	૨ અભિલેખાગારનો પરિચય ૩, અભિલેખાગાર રેકોર્ડ જાળવણી પદ્ધતિ	
	ટોટલ	**100**

REFERENCE BOOKS:

1. પ્રભાસ અને સોમનાથ –શંભુ પ્રસાદ દેસાઈ
2. સોરઠ બરડા પરદેશનો ઈતિહાસ -પ્રધુમ્ન ખાચર
3. દ્વારકા –કલ્યાણરાય જોશી
4. સૌરાષ્ટ્રના દફતર ભંડારો –ગોહિલ મયુરસિંહ
5. દ્વારકા પ્રદેશનો સાંસ્કૃતિક ઈતિહાસ- કલ્યાણરાય જોશી
6. જૂનાગઢ અને ગિરનાર - શંભુપ્રસાદ દેસાઈ
7. દફતર વિદ્યાની વિભાવના - પંકજ દેસાઈ

GUJARATI
DIPLOMA COURSE

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of
Subject: GUJARATI
Effective from June 2025

Programme	**UG**		**Internal Marks**	**40**
Course Type	**Vocational Exit Course for Diploma Course**		**External Marks**	**60**
Course Credit	**04**		**Practical Internal**	
Teaching Hours	**60**		**Practical External**	
Course Title	**સોરઠના સાંસ્કૃતિક સંગ્રહાલયો**		**Total**	**100**
			Exam Duration	**1 hour**

COURSE OBJECTIVE:

- આ અભ્યાસક્રમ દ્વારા વિદ્યાર્થીઓ સોરઠના સાંસ્કૃતિક સંગ્રહાલયોથી પરિચિત થશે.
- આ અભ્યાસક્રમ દ્વારા વિદ્યાર્થીઓ સોરઠના ભવ્ય સાંસ્કૃતિક ઇતિહાસથી પરિચિત થશે.
- આ અભ્યાસક્રમ દ્વારા વિદ્યાર્થીઓ સોરઠના સંગ્રહાલયોથી પરિચિત થશે.

COURSE OUTCOME:

- ગુજરાતી ભાષાના વિદ્યાર્થીઓમાં આપણા સાંસ્કૃતિક વિરાસતથી અવગત થશે.
- ગુજરાતી ભાષાના વિદ્યાર્થીઓમાં પ્રાદેશિક સંસ્કૃતિ અને અંગે જાણશે અને લગાવ થશે.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	• **સોરઠના વિવિધ સંગ્રહાલયો અને સંસ્કૃતિ** • **જૂનાગઢનું સંગ્રહાલય અને સંસ્કૃતિ** ૧, સંગ્રહાલય પ્રવૃતિનો ઇતિહાસ અને સંગ્રહાલયની વ્યાખ્યા ૨,જૂનાગઢના સંગ્રહાલયની સ્થાપના, સંગ્રહાલયના વિભાગો ૩,સિક્કા સંગ્રહાલય(મજેવડી ગેટ)વિજ્ઞાન સંગ્રહાલય,જૂનાગઢ	**20**
2	• **સોમનાથનું સંગ્રહાલય અને સંસ્કૃતિ** • **વ્યક્તિગત સંગ્રહાલય અને સંસ્કૃતિ** ૧,પ્રભાસપાટણનો પરિચય ૨,પ્રભાસ સંગ્રહાલયની સ્થાપના અને પરિચય ૩,પ્રભાસ વિસ્તારની સંસ્કૃતિ	**20**
3-4	• **જુદા જુદા સંગ્રહાલયોની મુલાકાત અને સ્થાનિક સંસ્કૃતિ વિષે લેખ** • **દફતર સંગ્રહાલયોની મુલાકાત અને તેની કાર્ય પદ્ધતિ વિષે તાલીમ** ૧,જૂનાગઢ સંગ્રહાલયની મુલાકાત	**60**

	૨, સિક્કા સંગ્રહાલય અને વિજ્ઞાન સંગ્રહાલય ૩, જૂનાગઢ સંગ્રહાલયના સંસ્કૃતિક કાર્યો	
	ટોટલ	**100**

REFERENCE BOOKS:

1. પ્રભાસ અને સોમનાથ –શંભુ પ્રસાદ દેસાઈ
2. જૂનાગઢ અને ગિરનાર - શંભુ પ્રસાદ દેસાઈ
3. સંગ્રહાલય વિશેષાંક –પથિક
4. દ્વારકા સર્વસંગ્રહ –પુષ્કરભાઈ ગોકાણી
5. ગુજરાતનો રાજ્કીય અને સાંસ્કૃતિક ઈતિહાસ -૮-૯
6. સૌરાષ્ટ્રના દફતર ભંડારો –ગોહિલ મયુરસિંહ
7. સૌરાષ્ટ્ર સંસ્કૃતિકોશ –હસમુખ વ્યાસ

HINDI

Bhakta Kavi Narsinh Mehta University
Exit Course as per NEP-2020
Faculty of Arts
Subject: Hindi
Effective from: June-2025

Programme	**B. A.**		**Internal Marks**	**00**
Course Type	**Exit / Vocational Course – Voc-01**		**External Marks**	**00**
Course Credit	**04**		**Practical Internal**	**100**
Teaching Hours	**60**		**Practical External**	**00**
Course Title	**Project Work**		**Total**	**100**
			Exam Duration	**----**

COURSE OBJECTIVES:

- हिन्दी भाषा और साहित्य का ज्ञान विकसित करना।
- क्षेत्रीय हिन्दी संस्थानों की कार्यप्रणाली से छात्रों को अवगत कराना।
- अनुवाद क्षमता को विकसित कर रोजगार के क्षेत्र में अभिवृद्धि करना।
- सरकारी और निजी प्रिंट तथा इलेक्ट्रोनिक मीडिया में प्रमाणपत्र कार्यक्रम से छात्रों को अवगत कराना।
- गुजरात के हिन्दी लेखकों का जीवन तथा सर्जन का परिचय प्राप्त करना।

COURSE OUTCOMES:

- हिन्दी भाषा और साहित्य का ज्ञान प्राप्त कर हिन्दी के विकास में बहुमूल्य योगदान देंगे।
- विभिन्न हिन्दी संस्थानों की मुलाकात कर उनकी कार्यपद्धत्ति और हिन्दी के प्रचार-प्रसार में उनके योगदान से परिचित होंगे।
- छात्र मीडिया के विभिन्न मंच पर कार्य करने में सक्षम बनेंगे।
- छात्रों में स्पष्ट और प्रभावशाली अनुवाद-कौशल विकसित होगा।
- गुजरात के हिन्दी लेखकों को राष्ट्रीय स्तर पर प्रसिद्धि प्राप्त होगी।

CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**हिन्दी अनुवाद:** कोई एक साहित्यिक कृति का गुजराती से हिन्दी में अनुवाद करना तथा कोई एक साहित्यिक कृति का हिन्दी से गुजराती में अनुवाद करना।	**60**
2	**क्षेत्रीय हिन्दी संस्थान:** गुजरात राज्य में कार्यरत हिन्दी संस्थानों की मुलाकात तथा उनकी कार्यशैली/ कार्यविधि का अध्ययन।	**60**
3	**हिन्दी पत्रकारिता:** गुजरात राज्य में कार्यरत हिन्दी पत्रकारिता (प्रिंट और इलेक्ट्रोनिक मीडिया) का क्षेत्रीय अध्ययन।	**60**
4	**गुजरात के हिन्दी लेखक:** गुजरात राज्य के हिन्दी साहित्यकारों से साक्षात्कार और उनका व्यक्तित्व – कृतित्व।	**60**
5	**Swayam four (04) credit MOOC certificate course.**	**60**

विशेष:

- उपरोक्त पाँच प्रवृत्ति-कोर्स में से कोई एक प्रवृत्ति-कोर्स करना होगा।
- NEP-2020 की SoP अनुसार प्रवृत्ति-कोर्स 60 घण्टे का होना अनिवार्य है।
- उपरोक्त कोई भी प्रवृत्ति-कोर्स में कार्य समाप्ति का संस्थान द्वारा जारी प्रमाणपत्र जमा करना अनिवार्य है।
- महाविद्यालय के विषय सम्बंधित प्राद्यापक द्वारा प्रवृत्ति-कोर्स का मूल्यांकन करना होगा।

REFERENCE:

1. **https://swayam.gov.in/**
2. **https://moocs.hindi.ac.in/**
3. **https://ctb.rajbhasha.gov.in/**
4. **https://hindivishwa.org/**
5. **https://sahitya-akademi.gov.in/index_h.jsp**
6. ગુજરાતીઓએ હિન્દી સાહિત્યમાં આપેલો ફાળો, ડાહ્યાભાઈ પી. દેરાસરી
7. ગુજરાતનું હિન્દી સાહિત્ય, જગજીવન ક. મોદી

SANSKRIT

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Arts
Subject: SANSKRIT
Effective from June 2025
SEMESTER- II

Programme	**B. A. SEM-II**		**Internal Marks**	**00**
Course Type	**Exit / Vocational Course – Voc-01**		**External Marks**	**00**
Course Credit	**04**		**Practical Internal**	**100**
Teaching Hours	**60**		**Practical External**	**00**
Course Title	**Project Work**		**Total**	**100**
			Exam Duration	**----**

COURSE OBJECTIVES:

- સંસ્કૃત સંભાષણ કૌશલ્ય કેળવે.
- યોગકેન્દ્રોનો વિકાસ થાય અને યોગથી વિદ્યાર્થી પરિચિત થાય.
- પાંડુલિપિનું જ્ઞાન પ્રાપ્ત થાય.
- સંસ્કૃત ભાષાની હસ્તપ્રતોથી અવગત થાય.
- સંસ્કૃત સેવા સાથે જોડાયેલ વિવિધ ક્ષેત્રોમાં અનુભવ મેળવી સ્વવિકાસ કેળવે.

COURSE OUTCOMES:

- સંસ્કૃત સંભાષણ કૌશલ્ય પ્રાપ્ત થશે.
- યોગકેન્દ્રોનો વિકાસ થશે અને યોગથી વિદ્યાર્થી પરિચિત થશે.
- પાંડુલિપિનું જ્ઞાન પ્રાપ્ત થશે.
- સંસ્કૃત ભાષાની હસ્તપ્રતોથી પરિચિત થશે.
- સંસ્કૃત સેવાથી વિવિધ ક્ષેત્રોના અનુભવ દ્વારા સ્વવિકાસ થશે.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**સંસ્કૃત સંભાષણ :** સંસ્કૃત ભારતી અથવા રાષ્ટ્રીય સંસ્કૃત સંસ્થાન દ્વારા ચાલતાં સંવાદ શાળા કે સંભાષણ વર્ગમાં જોડાવું. અથવા પ્રશિક્ષિત હોય તો સંસ્કૃત સંભાષણ શિબિર કરાવવી.	60
2	**યોગ-** માન્ય યોગકેન્દ્રમાં જઈને તાલીમ લેવી, તાલીમ આપવી અથવા તાલીમ આપનારના મદદનીશ તરીકે કાર્ય કરવું.	60
3	પાંડુલિપિ શિક્ષણ : સરકારશ્રી દ્વારા અને પાંડુલિપિ વિજ્ઞાન મિશન દ્વારા ચાલતાં યુનિવર્સિટી અને કોલેજોના માન્ય પાંડુલિપિ પ્રશિક્ષણ વર્ગમાં	60

	જોડાવું.	
4	સંસ્કૃત સેવા સાથે જોડાયેલ ટ્રસ્ટ, આશ્રમ, મઠ તથા ધાર્મિક સ્થળોમાં કાર્ય: નાગર-ગ્રામ આદિના સંસ્કૃત સેવા સાથે જોડાયેલ સરકારશ્રી દ્વારા માન્ય (ટ્રસ્ટ,મઠ,મંદિર,આશ્રમ આદિ)ના વ્યવસ્થાપનમાં સહયોગ આપી તે સ્થળના કાર્યમાં જોડાયને સહાયક તરીકે કામગીરી કરવી.	**60**
5	Swayam four (04) credit MOOC certificate course.	**60**

નોંધ:-

- ઉપરોક્ત પ્રવૃતિ-કોર્સ માંથી કોઈપણ એક પ્રવૃતિ-કોર્સ કરવાનો રહેશે.
- NEP-2020ની SOP અનુસાર કોઈપણ પ્રવૃતિ-કોર્સ 60 કલાકની હોવી ફરજિયાત છે.
- ઉપરોક્ત કોઈપણ પ્રવૃતિ-કોર્સમાં કાર્ય કર્યાનું જે તે સંસ્થા-સ્થળના વડાનું સંસ્થા (ટ્રસ્ટ,આશ્રમ,મઠ તથા ધાર્મિક સ્થળ)ના લેટર પેડ પર પ્રમાણપત્ર લાવવું ફરજિયાત છે.
- કોલેજના જે તે વિષયના અધ્યાપક દ્વારા વિદ્યાર્થીના પ્રોજેક્ટ વર્ક(પ્રવૃતિ-કોર્સ)નું મૂલ્યાંકન કરવાનું રહેશે.

REFERENCE:

1. Swayam-MOOC course Link-
- https://swayam.gov.in/search_courses?searchText=sanskrit
- https://moocs.sanskrit.ac.in/courses.php - (Central Sanskrit University)

2. પાંડુલિપિ શિક્ષણ –
- https://sssu.ac.in/ (Somnath Sanskrit University-Veraval)
- https://www.namami.gov.in/hi (राष्ट्रीय पाण्डुलिपि मिशन)

3. સંસ્કૃત સંભાષણ –
- https://www.samskritabharati.in/spoken_samskrit_class (Sanskrit Bharati)

SANSKRIT

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Arts
Subject: SANSKRIT
Effective from June 2025
SEMESTER- IV

Programme	**B. A. SEM- IV**		**Internal Marks**	**00**
Course Type	**Exit / Vocational Course – Voc-01**		**External Marks**	**00**
Course Credit	**04**		**Practical Internal**	**100**
Teaching Hours	**60**		**Practical External**	**00**
Course Title	**Project Work**		**Total**	**100**
			Exam Duration	**----**

COURSE OBJECTIVES:

- સંસ્કૃત ભાષાનું જ્ઞાન પ્રાપ્ત થાય.
- સંસ્કૃત ભાષા શિક્ષણનું અધ્યાપન કૌશલ્ય પ્રાપ્ત થાય.
- ટેક્નોલોજીના સમયમાં સંસ્કૃત ભાષ અને સાહિત્યનુ પણ ડિજિટલાઇઝેશન થાય.
- સંસ્કૃત સેવા સાથે જોડાયેલ વિવિધ ક્ષેત્રોમાં અનુભવ મેળવી સ્વવિકાસ કેળવે.
- પાંડુલિપિનું જ્ઞાન પ્રાપ્ત થાય.
- સંસ્કૃત ભાષાની હસ્તપ્રતોથી અવગત થાય.

COURSE OUTCOMES:

- સંસ્કૃત ભાષાનું જ્ઞાન પ્રાપ્ત થશે.
- સંસ્કૃત ભાષા શિક્ષણનું અધ્યાપન કૌશલ્ય કેળવશે.
- ટેક્નોલોજીના સમયમાં સંસ્કૃત ભાષ અને સાહિત્યનુ પણ ડિજિટલાઇઝેશન થાય.
- સંસ્કૃત સેવાથી વિવિધ ક્ષેત્રોના અનુભવ દ્વારા સ્વવિકાસ થશે.
- પાંડુલિપિનું જ્ઞાન પ્રાપ્ત થશે.
- સંસ્કૃત ભાષાની હસ્તપ્રતોથી પરિચિત થશે.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	સંસ્કૃત શિક્ષણકાર્ય : રાજ્યની કોઈપણ સરકાર માન્ય પ્રાથમિક શાળામાં અથવા માધ્યમિક શાળામાં સંસ્કૃત વિષયનું અધ્યાપન કાર્ય કરાવવું.	60
2	ડિજિટલ કન્ટેન્ટ (સાહિત્ય)- સંસ્કૃત ભાષા અને સાહિત્યના પ્રચાર અને પ્રસારના ઉદ્દેશ્યથી સંસ્કૃત ભાષા અને સાહિત્યનું ડિજિટલ કન્ટેન્ટ-સાહિત્ય બનાવવું. અથવા બનાવનારના મદદનીશ તરીકે કાર્ય કરવું.	60
3	પાંડુલિપિ શિક્ષણ : સરકારશ્રી દ્વારા અને પાંડુલિપિ વિજ્ઞાન મિશન દ્વારા ચાલતાં યુનિવર્સિટી અને કોલેજોના માન્ય પાંડુલિપિ પ્રશિક્ષણ વર્ગમાં જોડાવું.	60
4	સંસ્કૃત સેવા સાથે જોડાયેલ ટ્રસ્ટ, આશ્રમ, મઠ તથા ધાર્મિક સ્થળોમાં કાર્ય:	60

	નાગર-ગ્રામ આદિના સંસ્કૃત સેવા સાથે જોડાયેલ સરકારશ્રી દ્વારા માન્ય (ટ્રસ્ટ,મઠ,મંદિર,આશ્રમ આદિ)ના વ્યવસ્થાપનમાં સહયોગ આપી તે સ્થળના કાર્યમાં જોડાયને સહાયક તરીકે કામગીરી કરવી.	
5	Swayam four (04) credit MOOC certificate course.	**60**

નોંધ:-

- **ઉપરોક્ત પ્રવૃતિ-કોર્સ માંથી કોઈપણ એક પ્રવૃતિ-કોર્સ કરવાનો રહેશે.**
- **NEP-2020ની SOP અનુસાર કોઈપણ પ્રવૃતિ-કોર્સ 60 કલાકની હોવી ફરજિયાત છે.**
- **ઉપરોક્ત કોઈપણ પ્રવૃતિ-કોર્સમાં કાર્ય કર્યાનું જે તે સંસ્થા-સ્થળના વડાનું સંસ્થા (ટ્રસ્ટ,આશ્રમ,મઠ તથા ધાર્મિક સ્થળ)ના લેટર પેડ પર પ્રમાણપત્ર લાવવું ફરજિયાત છે.**
- **કોલેજના જે તે વિષયના અધ્યાપક દ્વારા વિદ્યાર્થીના પ્રોજેક્ટ વર્ક(પ્રવૃતિ-કોર્સ)નું મૂલ્યાંકન કરવાનું રહેશે.**

REFERENCE:

1. Swayam-MOOC course Link-
- https://swayam.gov.in/search_courses?searchText=sanskrit
- https://moocs.sanskrit.ac.in/courses.php - (Central Sanskrit University)

2. પાંડુલિપિ શિક્ષણ –
- https://sssu.ac.in/ (Somnath Sanskrit University-Veraval)
- https://www.namami.gov.in/hi (राष्ट्रीय पाण्डुलिपि मिशन)

HISTORY

BHAKTA KAVI NARSINH MEHTA UNIVERSITY

Exit / Vocational Course

Syllabus of HISTORY (Honors) as per NEP-2020

Faculty of ARTS

Effective from June 2025

Subject: HISTORY

SEMESTER- II

SUMMARY OF THE SYLLABUS

Sem No.	Sr. No.	Category of Course	Course Title	Course Level	Credit	Practical Hrs.	SEE Marks	CCE Marks	Total Marks	Exam Duration
Sem-2	1	Exit / Vocational Course - Voc - 01	Project Work	4.5	4	60	--	100	100	----
				Total	4	60	--	100	100	

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit / Vocational Course
Syllabus of HISTORY (Honors) as per NEP-2020
Faculty of ARTS
Effective from June 2025
Subject: HISTORY
SEMESTER- II

Course Level	4.5		**Internal Marks**	00
Programme	B. A.		**External Marks**	00
Semester	02		**Practical Internal**	100
Course Type	Exit / Vocational Course - Voc – 01		**Practical External**	----
Course Credit	04		**Prac.Ext.Exam Time**	---
Practical Hours	60		**Total**	100
Course Code	Voc – 01		**Exam Duration**	----
Course Title	**Project Work**			

Course Objectives:

1. To introduce students to Historical places in person.
2. To Students have to prepare a project about tourist places.

Course Learning Outcomes: After completion of the course:

1. Students will personally visit the Historical places and collect information and prepare a project.
2. Students will develop writing skills from a historical perspective.

Course Contents

Sem	Unit No.	Syllabi	Practical Hours
2	1	1. The students should visit five (05) historical places to prepare a project work about the Historical places in Junagadh, Gir Somnath, Porbandar and Devbhoomi Dwarka district. **OR** 1. Completion of a one Swayam four (04) credit MOOC certificate course and deposit the certificate with the college	**60**

Evaluation Pattern				
Sr. No.	**Details of the Evaluation**		**Weightage**	**Marks**
1.	Internal Assessment in the form of Five Historical Places Project work (05) Assignments (Assignment 05 × 20 = 100 Marks) **OR** Completion of a one Swayam four (04) credit MOOC certificate course (Course 01 × 100 = 100 Marks) The certificate of the MOOC course will have to be submitted to the college.		**100%**	**100**
2.	University Examination		---	----
		Total	**100%**	**100**

Note: Project work evaluation by College Teachers

HISTORY

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit / Vocational Course
Syllabus of HISTORY (Honors) as per NEP-2020
Faculty of ARTS
Effective from June 2025
Subject: HISTORY
SEMESTER- IV

SUMMARY OF THE SYLLABUS

Sem No.	Sr. No.	Category of Course	Course Title	Course Level	Credit	Practical Hrs.	SEE Marks	CCE Marks	Total Marks	Exam Duration
Sem-4	1	Exit / Vocational Course - Voc - 02	Project Work	5.0	4	60	--	100	100	----
				Total	4	60	--	100	100	

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit / Vocational Course
Syllabus of HISTORY (Honors) as per NEP-2020
Faculty of ARTS
Effective from June 2025
Subject: HISTORY
SEMESTER- IV

Course Level	5.0		**Internal Marks**	00
Programme	B. A.		**External Marks**	00
Semester	04		**Practical Internal**	100
Course Type	Exit / Vocational Course - Voc – 02		**Practical External**	----
Course Credit	04		**Prac.Ext.Exam Time**	---
Practical Hours	60		**Total**	100
Course Code	Voc – 02		**Exam Duration**	----
Course Title	**Project Work**			

Course Objectives:

1. To introduce students to Historical places in person.
2. To Students have to prepare a project about tourist places.

Course Learning Outcomes: After completion of the course:

1. Students will personally visit the Historical places and collect information and prepare a project.
2. Students will develop writing skills from a historical perspective.

Course Contents

Sem	Unit No.	Syllabi	Practical Hours
2	1	1. The students should visit five (05) historical places to prepare a project work about the Historical places in Junagadh, Gir Somnath, Porbandar and Devbhoomi Dwarka district. **OR** 1. Completion of a one Swayam four (04) credit MOOC certificate course and deposit the certificate with the college	**60**

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit / Vocational Course
Syllabus of HISTORY (Honors) as per NEP-2020
Faculty of ARTS
Effective from June 2025
Subject: HISTORY
SEMESTER- IV

Evaluation Pattern				
Sr. No.	**Details of the Evaluation**		**Weightage**	**Marks**
1.	Internal Assessment in the form of Five Historical Places Project work (05) Assignments (Assignment 05 × 20 = 100 Marks) **OR** Completion of a one Swayam four (04) credit MOOC certificate course (Course 01 × 100 = 100 Marks) The certificate of the MOOC course will have to be submitted to the college.		**100%**	**100**
2.	University Examination		---	----
		Total	**100%**	**100**

Note: Project work evaluation by College Teachers

ECONOMICS
(AFTER 1 Year)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Arts
Subject: ECONOMICS
Effective from June 2025
SEMESTER- 2

Programme	**B. A. SEM-2**		**Internal Marks**	**00**
Course Type	**Exit / Vocational Course – Voc-01**		**External Marks**	**00**
Course Credit	**04**		**Practical Internal**	**100**
Teaching Hours	**60**		**Practical External**	**00**
Course Title	**Basic Applied Economics**		**Total**	**100**
			Exam Duration	**----**

COURSE OBJECTIVES:

- To develop practical understanding of economic concepts in real-life situations.
- To provide exposure to local markets, banking institutions, MSMEs and government schemes.
- To enhance basic data collection, survey, and report-writing skills.
- To promote financial literacy and entrepreneurial awareness.
- To prepare students for entry-level employment or self-employment opportunities.

COURSE OUTCOMES:

After completion of the course, students will be able to:

- Conduct basic market surveys and analyze simple economic data.
- Understand banking operations and financial inclusion mechanisms.
- Explain functioning of MSMEs and small enterprises.
- Identify key government economic schemes and their impact.
- Prepare structured field-based project reports.

COURSE RATIONALE

This course is designed in alignment with NEP–2020 guidelines for experiential learning, skill development, and multiple exit options. It aims to provide practical exposure to students exiting after the first year (UG Certificate Level).

COURSE CONTENTS

Students shall complete any ONE of the following activities (Total 60 Hours).

Unit No.	Title of the Unit & Topics	Hours
1	**Local Market Survey & Economic Analysis** • Field visit to village/town market • Study of demand–supply and pricing • Consumer behaviour observation • Preparation of structured survey report	60
2	**Banking & Financial Literacy Study** • Visit to Nationalized/Cooperative Bank/SHG • Understanding deposit, credit & digital payment systems • Study of financial inclusion schemes • Field report preparation	60
3	**Entrepreneurship & MSME Study** • Visit to MSME/Startup/Cooperative Society • Study of production, cost & marketing • Employment generation analysis • Report submission	60
4	**Government Economic Scheme Study** • Study of selected Central/State schemes (e.g., MSME, Mudra, PMJDY, Digital Gujarat schemes) • Interaction with beneficiaries • Preparation of impact-based report	60
5	**SWAYAM 4-Credit MOOC (Economics Related)** • Enrolment in UGC-approved course • Completion of assignments & assessment • Submission of certificate	60

IMPORTANT NOTE:

- Students shall complete **any one of the above activities.**
- The activity-based course shall be of minimum 60 hours as per NEP-2020 SOP guidelines.
- Certificate from the concerned institution/organization (on letterhead) is mandatory.
- Students must submit a Project Report (Minimum 30 Pages).
- Evaluation will be done internally by the concerned subject teacher.

EVALUATION SCHEME (Internal – 100 Marks)

Components (Indicative) : Field Work / Participation, Project Report (Minimum 25–30 Pages), Presentation / Viva, Record, Certification & Documentation

REFERENCES

- Dutt & Sundaram – *Indian Economy*
- Khanka – *Entrepreneurial Development*
- Bhole & Mahakud – *Financial Institutions and Markets*
- Kothari – *Research Methodology*
- Economic Survey of India (Latest Edition)

ADDITIONAL RESOURCES (Free Web URLs)

- **SWAYAM (MOOC Courses – Economics & Public Policy)**
  https://swayam.gov.in
- **NPTEL (Economics & Management Courses – Free Online)**
  https://nptel.ac.in
- **Reserve Bank of India – Financial Education & Publications**
  https://www.rbi.org.in
- **Financial Literacy Portal (RBI Initiative)**
  https://financialeducation.rbi.org.in
- **Ministry of MSME – Government of India (Entrepreneurship & MSME Schemes)**
  https://msme.gov.in
- **Startup India Portal (DPIIT – Government of India)**
  https://www.startupindia.gov.in
- **Ministry of Statistics & Programme Implementation (MOSPI – Official Data Source)**
  https://mospi.gov.in
- **NITI Aayog – Policy Reports & Economic Studies**
  https://www.niti.gov.in
- **Economic Survey of India (Ministry of Finance)**
  https://www.indiabudget.gov.in/economicsurvey
- **Government of Gujarat – Digital Gujarat & Economic Information**
  https://www.digitalgujarat.gov.in

ECONOMICS
(AFTER 2 Year)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Arts
Subject: ECONOMICS
Effective from June 2025
SEMESTER- 4

Programme	B. A. SEM-4	Internal Marks	00
Course Type	Exit / Vocational Course – Voc-02	External Marks	00
Course Credit	04	Practical Internal	100
Teaching Hours	60	Practical External	00
Course Title	Applied Economic Analysis	Total	100
		Exam Duration	----

COURSE OBJECTIVES:

- To develop intermediate-level analytical and applied economic skills.
- To train students in field research and economic data analysis.
- To understand policy implementation and regional development issues.
- To enhance employability and entrepreneurial competence.
- To prepare students for entry-level roles in banking, MSME, NGOs, and government projects.

COURSE OUTCOMES:

After completion of the course, students will be able to:

- Conduct structured field research and analyze economic data.
- Evaluate government schemes and development policies.
- Understand regional economic issues of Gujarat and India.
- Apply basic statistical tools for interpretation of data.
- Prepare analytical project reports with policy suggestions.

COURSE RATIONALE

As per NEP–2020 Multiple Exit Framework, students exiting after completion of two years (UG Diploma Level) should possess intermediate analytical skills, applied economic understanding, and employability competencies.

This course emphasizes applied economic research, policy evaluation, entrepreneurship exposure, and data interpretation in the Indian and Gujarat context.

COURSE CONTENTS

Students shall complete any ONE of the following activities (Total 60 Hours)

Unit No.	Title of the Unit & Topics	Hours
1	**Applied Market & Industry Analysis** • Study of local industry cluster (e.g., agriculture, MSME, cooperative sector) • Cost–output analysis • Employment & productivity study • Market competitiveness analysis • Field-based analytical report	60
2	**Banking, Financial Inclusion & Digital Economy Study** • Study of credit delivery system • Analysis of PMJDY, Mudra, SHG-Bank linkage • Digital payments & fintech awareness • Field interviews and data interpretation • Report submission	60
3	**Public Policy & Government Scheme Evaluation** • Study of selected schemes (MSME, Skill India, PMEGP, State Schemes – Gujarat) • Beneficiary interaction • Impact and gap analysis • Policy evaluation report	60
4	**Rural / Urban Development Economic Study** • Study of rural employment, cooperative movement, or urban informal sector • Data collection and statistical presentation • Problem identification and suggestions • Analytical project report	60
5	**UGC-Approved SWAYAM 4-Credit MOOC (Economics Related)** • Completion of approved course in Development Economics / Data Analysis / Public Policy / Entrepreneurship etc. • Certificate submission	60

IMPORTANT NOTE:

- Students shall complete **any one of the above activities.**
- The activity-based course shall be of minimum 60 hours as per NEP-2020 SOP guidelines.
- Certificate from the concerned institution/organization (on letterhead) is mandatory.
- Students must submit a Project Report (Minimum ~ 30 Pages).
- Evaluation will be done internally by the concerned subject teacher.

EVALUATION SCHEME (Internal – 100 Marks)

Components (Indicative) : Field Work / Data Collection, Analytical Project Report (30–40 Pages), Data Presentation & Interpretation, Viva / Presentation

REFERENCES

- Dutt & Sundaram – *Indian Economy*
- Khanka – *Entrepreneurial Development*
- Bhole & Mahakud – *Financial Institutions and Markets*
- Kothari – *Research Methodology*
- Economic Survey of India (Latest Edition)

ADDITIONAL RESOURCES (Free Web URLs)

- **SWAYAM (MOOC Courses – Economics & Public Policy)**
  https://swayam.gov.in
- **NPTEL (Economics & Management Courses – Free Online)**
  https://nptel.ac.in
- **Reserve Bank of India – Financial Education & Publications**
  https://www.rbi.org.in
- **Financial Literacy Portal (RBI Initiative)**
  https://financialeducation.rbi.org.in
- **Ministry of MSME – Government of India (Entrepreneurship & MSME Schemes)**
  https://msme.gov.in
- **Startup India Portal (DPIIT – Government of India)**
  https://www.startupindia.gov.in
- **Ministry of Statistics & Programme Implementation (MOSPI – Official Data Source)**
  https://mospi.gov.in
- **NITI Aayog – Policy Reports & Economic Studies**
  https://www.niti.gov.in
- **Economic Survey of India (Ministry of Finance)**
  https://www.indiabudget.gov.in/economicsurvey

- **Government of Gujarat – Digital Gujarat & Economic Information**
  https://www.digitalgujarat.gov.in

PHILOSOPHY

Bhakta Kavi Narsinh Mehta University
Exit Course as per NEP-2020
Faculty of Arts Subject: Philosophy
Effective from: June-2025

Programme	**B. A.**		**Internal Marks**	**00**
Course Type	**Exit / Vocational Course – Voc-01**		**External Marks**	**00**
Course Credit	**04**		**Practical Internal**	**100**
Teaching Hours	**60**		**Practical External**	**00**
Course Title	**Project Work**		**Total**	**100**
			Exam Duration	**----**

COURSE OBJECTIVES:

- The objective of this course is to make students familiar with Indian Intellectual traditions.
- This course will be an Introduction to the major schools of Indian philosophy.
- Focus will be on interactive learning where students will engage themselves into rigorous and an analytical examination of key concepts in a manner that enables them for contemporary engagement and reflection.
- The course will help the students in understanding the significance of Indian philosophical studies in their daily life, how to overcome the stress, how to manage their life and take challenges in life; hence there will be a focus on the dialectical and analytical method to understand Indian philosophy.
- The aim is to make students familiar with and develop a clear understanding of the major concepts such as the Indian Philosophical studies. Debate amongst the schools regarding the nature of the self will enhance various perspectives and further increase students understanding of Indian Philosophical systems and their philosophy.
- Improved critical reading of the texts, their rational and logical understanding, and writing abilities. Exposure to various Indian Philosophical texts. Finally, it will give a holistic development of their personality

COURSE OUTCOMES:

- Understand the broad ideas that are enshrined in the basic thinking of variouscentres of philosophy.
- Develop the idea of creating new theories of metaphysics and epistemology And ethics and logic and Aesthetics
- Critically analyses the hypothesis, theories, techniques and definitions Offered by philosophers.
- Utilize philosophy to understand social realities and problems and to come up with ideal solutions to them.
- Identify how deeply philosophy is connected to other disciplines like Economics and natural sciences and Literature
- Understand and appreciate the foundational nature of philosophy.

CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	સમકાલીન ભારતીય તત્વચિંતકોનું જીવન અને કવન	60
2	ગાંધીજીની જીવન અને દર્શન	60
3	Philosophy subject related Swayam four (04) credit MOOC certificate course.	60

COURSE ONE REFERENCE:

- ડો.બી. જી. દેસાઈ : આધુનિક ભારતીય તત્વજ્ઞાન, પ્રકા. યુનિ. ગ્રંથ નિર્માણ બોર્ડ અમદાવાદ.
- અનુ. ડો. ભાવના ત્રિવેદી : આધુનિક ભારતીય તત્વચિંતન, પ્રકા. યુનિ. ગ્રંથ નિર્માણ બોર્ડ અમદાવાદ
- પ્રો. સી.વી. રાવળ : પારિભાષિક કોશ તત્વજ્ઞાન,પ્રકા. યુનિ. ગ્રંથ નિર્માણ બોર્ડ અમદાવાદ.
- પ્રા બસંતકુમાર લાલ : સમકાલીન ભારતીય તત્વજ્ઞાન (હિંદી), મોતીલાલ બના. દિલ્હી.
- ડો. મુકુન્દ કોટેચા : સમકાલીન ભારતીય તત્વચિંતન, સ્વપ્નિલ પ્રકાશન,વઢવાણ સીટી.

COURSE TWO REFERENCE:

- આત્મકથા –ગાંધીજી
- દક્ષીણ આફ્રિકાના સત્યાગ્રહ નો ઈતિહાસ-ગાંધીજી
- રચનાત્મક કાર્યક્રમ - દશરથભાઈ શાહ
- બહુરૂપી ગાંધી- અનુબેન ઉપાધ્યાય
- ગાંધીજીનાપ્રરકો-દશરથભાઈ શાહ
- બાપુને દસ અંજલી- અમૃતલાલવેગડ
- મંગલપ્રભાત – ગાંધી

COURSE THREE REFERENCE:

- https://share.google/6hKLMqrPWu3QSh1AF
- To develop knowledge of Philosophy language and literature.
- To make students aware of the working of regional Hindi institutes.
- To increase employment opportunities by developing translation skills.
- To make students aware of certificate programmes in government and private print and electronic media.
- To get acquainted with the life and creativity of Hindi writers of Gujarat.

POLITICAL SCIENCE

Bhakta Kavi Narsinh Mehta University
Exit Course as per NEP-2020 Faculty of Arts
Subject: Political Science
Effective from: June-2025

Programme	**B. A.**		**Internal Marks**	**00**
Course Type	**Exit / Vocational Course – Voc-01**		**External Marks**	**00**
Course Credit	**04**		**Practical Internal**	**100**
Teaching Hours	**60**		**Practical External**	**00**
Course Title	**Project Work**		**Total**	**100**
			Exam Duration	**----**

COURSE OBJECTIVES:

1. **To Understand the Nature and Scope of Public Administration Study its role in governance, Policy-making and public service.**
2. **To Analyze Administrative Processes and Structures Examine how public organizations function and interact.**
3. **To Improve Efficiency and Effectiveness in Governance Develop models for better decision-making, planning, and implementation.**
4. **To Ensure Accountability, Ethics, and Transparency Promote good governance through checks, balances, and ethical conduct.**
5. **To Bridge the Gap Between Theory and Practice Apply academic knowledge to solve real-world administrative challenges.**
6. **To Promote Democratic Governance and Public Welfare Encourage citizen participation and responsiveness to public needs.**
7. **To Respond to Contemporary Challenges Study how public administration adapts to globalization, digital governance, environmental concerns, etc.**

COURSE OUTCOMES:

1. **Conceptual Clarity Students understand key concepts, thinkers, and theories of public administration.**
2. **Analytical Skills Ability to evaluate administrative systems and suggest improvements.**
3. **Policy and Management Insight Knowledge of how public policies are formulated, implemented, and assessed.**
4. **Ethical and Responsible Governance Approach Develop a value-based framework for public service delivery.**
5. **Problem-Solving Abilities Skills to address administrative challenges through innovation and reform.**
6. **Practical Application of Theories Capacity to apply theoretical models in public institutions and fieldwork.**
7. **Career Preparation Foundation for civil services, policy research, NGO management, and academic roles.**

Bhakta Kavi Narsinh Mehta University
Exit Course as per NEP-2020 Faculty of Arts
Subject: Political Science
Effective from: June-2025

CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**શાસન વ્યવસ્થાના વહીવટી સિદ્ધાંતો**	60
2	**ગાંધીજીની જીવન અને રાજનૈતિક વિચારો**	60
3	Political Science subject related Swayam Four (04) credit MOOC certificate course.	60

COURSE ONE REFERENCE:-

(1) Kirtidev D. Desai: Rajya Vahivat Parichay (In Gujarati).
(2) Prabhudatt Sharma and H. Sharma: Lok Prashasan ke Naye Kshitij (In Hindi).
(3) E.N. Gladden: Introduction to Public Administration.
(4) Willoughby : Principles of Public Administration.
(5) M.P. Sharma: Theory and Practice of Public Administration.
(6) Graves: Public Administration in a Democratic Society.
(7) Avasthi and Maheshwari: Public Administration.

COURSE TWO REFERENCE:-

૧. આત્મકથા –ગાંધીજી

૨. દક્ષીણ આફ્રિકાના સત્યાગ્રહ નો ઈતિહાસ-ગાંધીજી

૩. રચનાત્મક કાર્યક્રમ - દશરથભાઈ શાહ

૪. બહુરૂપી ગાંધી- અનુબેન ઉપાધ્યાય

૫. ગાંધીજીનાપ્રરકો-દશરથભાઈ શાહ

૬. બાપુને દસ અંજલી- અમૃતલાલવેગડ

૭. મંગલપ્રભાત – ગાંધી

COURSE THREE REFERENCE:-

(૧) https://swayam.gov.in/explorer

PSYCHOLOGY

EXIT COURSE (Level-1 & 2 Psychology)

This course purports to introduce the learners to the basic ideas, principles and methods in psychology so as to enable them to understand themselves and their social world better. The emphasis is put on creating interest and exposure needed by learners to develop their own knowledge base and understanding. The course deals with psychological knowledge and practices which are contextually rooted. It emphasises the complexity of behavioural processes and discourages simplistic cause-effect thinking. This is pursued by encouraging critical reasoning, allowing students to appreciate the role of cultural factors in behaviour, and illustrating how biology and experience shape behaviour. The course while developing an appreciation of subjectivity, also focuses on multiplicity of worldviews. It is suggested that the teaching-learning processes should involve students in evolving their own understanding. Therefore, teaching of psychology should be based on the use of case studies, narratives, experiential exercises, analysis of common everyday experiences, etc.

Objectives

- To develop appreciation about human behaviour and human mind in the context of learners' immediate society and environment.
- To develop in learners an appreciation of multidisciplinary nature of psychological knowledge and its applications in various aspects of life.
- To enable learners to become perceptive, socially aware and self-reflective.
- To facilitate students' quest for personal growth and effectiveness, and to enable them to become responsive and responsible citizens.

Candidates must have detailed knowledge about the EXIT TEST Syllabus and exam pattern. Below we have mentioned the details about the syllabus and exam for both papers.

EXIT level exam conducted by the University, to evaluate the candidate's eligibility for aspirants for positions in government and private sector organization across the state. The Gujarat TET Syllabus 2025 provides detailed subject-wise topics for Paper I (Level 1) and Paper II (Level 2). candidates should thoroughly understand the syllabus and exam pattern to perform well in the examination.mentions the topics and subjects that aspirants need to focus on to excel in the Exit Exam. The syllabus is divided into two papers:

Paper I (Level 1) Foundations of Psychology -I

Paper II (Level 2) Foundations of Psychology-II

Exam Pattern for both Paper I and Paper II. The exam duration is 2 hours 30 minutes with +1 for each correct answer there is no negative marking. The mode of examination will be offline (pen and paper based)

Paper I (Level 1) Foundations of Psychology -I

Unit 1: What is Psychology?

- What is Psychology? Popular notions about discipline of psychology; Understanding mind and behaviour; Evolution of psychology; Branches of psychology: Themes of research and applications; Psychology and other disciplines ; Psychologists at work ; Psychology in everyday life; Development of Psychology in India.

Unit 2: Methods of Enquiry in Psychology

- Nature of psychological data; Some important methods: Observational, Experimental, Correlational, Survey, Psychological testing, Case Study; Analysis of data; Limitations of psychological enquiry; Ethical issues.

Unit 3: The Bases of Human Behaviour

- Biological basis : Biological and cultural roots; Biology of behaviour: Structure and functions of nervous system and endocrine system; Relationship of nervous system and endocrine system with behaviour and experience; Brain and behaviour; Heredity: Genes and behaviour; Cultural basis : Socio-cultural shaping of behaviour (e.g. family, community, faith, gender, caste, disability etc.); Socialisation , enculturation and acculturation.

Unit 4: Human Development

- Meaning of development; Factors influencing development; Context of development; Overview of developmental stages: Infancy, Childhood, Challenges of Adolescence, Adulthood and Old age.

Unit 5: Sensory, Attentional and Perceptual Processes

- Nature and varieties of stimulus; Sense modalities; Adaptation; Attentional processes; Selective and sustained attention ; Perceptual processes; The Perceiver; Principles of perceptual organisation; After images; Perception of space, depth and distance; Perceptual constancies; Illusions; Socio-cultural influences on perception.

Unit 6: Learning

- Nature of learning; Paradigms of learning: Classical and operant conditioning, Observational learning, Cognitive learning, Verbal learning, Concept learning, Skill learning; Factors facilitating learning; Transfer of learning; The Learner: Learning styles; Learning disabilities; Applications of learning principles.

Unit 7: Human Memory

- Nature of memory; Information Processing Approach; Levels of processing ; Memory systems — Sensory memory, Short-term memory, Long-term memory; Knowledge representation and organisation in memory ; Memory as a constructive process; Nature and causes of forgetting; Enhancing memory.

Unit 8: Thinking

- Nature of thinking; Thought and language; Development of language and language use; Reasoning; Problem-solving; Decision making; Nature and Process of creative thinking; Developing creative thinking.

Unit 9: Motivation and Emotion

- Nature of motivation; Biological motives; Social and psychological motives — Achievement, Affiliation and Power; Maslow's hierarchy of needs; Nature of emotions; Physiological, cognitive and cultural bases of emotions; Expression of emotions; Enhancing positive emotions, e.g. Happiness, Optimism etc.; Managing negative emotions, e.g. anger, fear etc.

Paper II (Level 2) Foundations of Psychology-II

Unit 1: Variations in Psychological Attributes

- Individual differences in human functioning; Assessment of psychological attributes; Intelligence: Individual differences in intelligence; Theories of intelligence; Culture and intelligence; Special abilities: Aptitude nature and measurement; Creativity; Emotional intelligence.

Unit 2: Self and Personality

- Concepts of self, self-esteem, self-efficacy, and self-regulation; Culture and self; Concept of personality; Major approaches — Type and Trait, Psychodynamic, Humanistic, Behavioural, Cultural; Assessment of personality: Self-report measures, behavioural analysis, and projective measures.

Unit 3: Meeting Life Challenges

- Nature, types and sources of stress; Effects on psychological functioning and health; Coping with stress; Promoting positive health and well-being.

Unit 4: Psychological Disorders

- Concepts of abnormality and psychological disorders; Classification of disorders; Factors underlying abnormal behaviour; Major psychological disorders – Anxiety, Somatic, Dissociative, Mood, Schizophrenic, Developmental and Behavioural-Substance use related.

Unit 5: Therapeutic Approaches

- Nature and process of therapy: Therapeutic relationship; Types of therapies: Psychodynamic, Humanistic, Cognitive, Behaviour and Bio-medical; Alternative therapies — Yoga, Meditation; Rehabilitation of mentally ill. Society

Unit 6: Attitude and Social Cognition

- Social cognition; Schemas and stereotypes; Nature and components of attitudes; Attitude formation and change; Behaviour in the presence of others; Pro-social behaviour; Prejudice and discrimination; Strategies for handling prejudice.

Unit 7: Social Influence and Group Processes

- Nature and formation of groups; Types of groups; Social identity; Influence of group on individual behaviour; Inter-group conflicts; Conflict resolution strategies.

Unit 8: Psychology and Life

- Human-environment relationship; Environmental effects on human behaviour: Noise, pollution, crowding, natural disasters; Promoting pro-environmental behaviour;

Psychology and social concerns: Aggression, Violence and Peace, Discrimination and Poverty, health, impact of television on behaviour.

Unit 9: Developing Psychological Skills

- Effective psychological skills: Observational skills, interviewing skills, testing skills, Counselling skills empathy, authenticity, positive regard, and Communication skills listening.

SOCIOLOGY

(Exit Course Certificate)

Bhakta Kavi Narsinh Mehta University
Exit Course / Summer Internship for Certificate
(as per NEP – 2020 SOP)
Faculty of Arts

Title: Exit Course / Certificate in Basics of Sociology
Duration: 3 weeks (120-hour)
Credits: 4 Credit
Eligibility: Certificate students after 2nd semester

Course Objectives:

- To Understand Foundational Sociological Concepts
- To develop critical thinking through sociological perspective.
- To develop the Sociological Imagination for students.
- To understand the importance of sociology in social life.

Learning Objectives:

- To Understand basic sociological concepts.
- To identify social institutions and their functions.
- To recognize major social issues in society.

Course Structure:

Component	**Details**
Duration	3 weeks (minimum 120 – hours)
Unit 1	**Introduction to Sociology** • Meaning and Definition of Sociology • Nature and Scope of Sociology • Sociology and Other Social Sciences
Unit 2	**Basic Concepts in Sociology:** Society, Community, Association, Social Group, Status and Role. Socialization, Social Control, Culture, Norms and Values.
Unit 3	**Social Institutions:** Family, Marriage, Religion, Education.
Unit 4	**Contemporary Social Issues:** Poverty, Unemployment, Gender Inequality, Corruption.

Bhakta Kavi Narsinh Mehta University
Exit Course / Summer Internship for Certificate
(as per NEP – 2020 SOP)
Faculty of Arts

Evaluation Criteria:

INTERNAL EVALUATION SCHEME		
NO	**Particulars**	**Marks**
1	**Mid Semester Exam (Mandatory)**	**25**
2	Class Test	05
3	Open book exam/test	05
4	Open note exam/test	05
5	Self-test/ Online test	05
6	Essay/Article writing	05
7	Quizzes/Objective test	05
8	Class assignment	05
9	Home assignment	05
10	Reports Writing	05
11	Research/Dissertation	05
12	Case Studies	05
13	Viva/Oral exam	05
14	Group Discussion	05
15	Role Play	05
16	Paper presentation/Seminar	05
17	Language Lab work	05
18	Interview	05
19	Craft work	05
20	Co-curricular work	05
21	Field Assignment	05
22	Poster Presentation	05
23	Attendance	05
24	Project Work	05
	Total	**50**

Bhakta Kavi Narsinh Mehta University
Exit Course / Summer Internship for Certificate
(as per NEP – 2020 SOP)
Faculty of Arts

Que. No	Particulars	From Which Unit	Marks
1	Question	Unit 1	10
2	Question	Unit 2	10
3	Question	Unit 3	10
4	Question	Unit 4	10
5	Short Note	From each unit	10
		Total Marks	**50**

Paper Style:
Internal and External Evaluation will be conducted by the College/Institute. After passing both internal and external exams by the students, the principal will then inform the university for necessary action of providing "Certificate" in Sociology in the faculty of Arts.

SOCIOLOGY

(EXIT COURSE DIPLOMA)

Bhakta Kavi Narsinh Mehta University
Exit Course / Summer Internship for Diploma in Sociology
(as per NEP – 2020 SOP)
Faculty of Arts

Title: Exit Course / Summer Internship for Diploma in Sociology
Duration: 3 weeks (120-hour)
Credits: 4 Credit
Eligibility: Diploma students after 4th semester

Course Objectives:

- To bridge theoretical knowledge acquired in the classroom with practical field experiences.
- To strengthen students' employability by developing professional skills.
- To cultivate critical thinking, effective communication, teamwork, and problem-solving abilities among students.
- To provide exposure to real-world organizational structures, practices, and contemporary challenges.

Learning Outcomes:

- Students will be able to apply the sociological knowledge in the field.
- Students research and fieldwork skill will be developed.
- Students will understand the functions of social institutions and community engagement.

Course Structure:

Component	**Details**
Orientation Program	2–3 days' workshop before internship (basic skills, workplace behaviour, reporting formats)
Internship Placement	In NGOs, panchayats, schools, government departments, hospital and other social service sections in private and public sector both, etc. based on student's interested field
Duration	3 weeks (minimum 120 – hours)
Mentorship	Assigned Faculty Mentor + Organization Supervisor
Weekly Reporting	Students submit weekly reports
Final Project Report	Comprehensive Report + PPT Presentation at the end
External Viva-Voce	Panel evaluation based on field experience, report, and presentation
Certificate	Issued jointly by Institute and Internship Organization

Evaluation Criteria:

Parameters	**Weightage**
Weekly Reports	20%
Organization Supervisor Feedback	30%
Final Report	30%
Viva-Voce/Presentation	20%

After the completion the viva voce, the principal will then inform the university for necessary action of providing "Certificate" in Sociology in the faculty of Arts.

B.S.W.

(Exit Course Certificate)

Bhakta Kavi Narsinh Mehta University
Exit Course / Summer Internship for Certificate
(as per NEP – 2020 SOP)
Faculty of Arts

Title: Exit Course / Summer Internship for Certificate
Duration: 3 weeks (120-hour)
Credits: 4 Credit
Eligibility: Certificate students after 2nd semester

Course Objectives:

- To integrate classroom knowledge with field experiences.
- To enhance students' employability skills.
- To develop critical thinking, communication, teamwork, and problem-solving skills.
- To expose students to real-world challenges and organizational structures.
- To encourage innovation, leadership, and social responsibility.

Course Structure:

Component	**Details**
Orientation Program	2–3 days' workshop before internship (basic skills, workplace behaviour, reporting formats)
Internship Placement	In NGOs, panchayats, schools, government departments, etc. based on student's interested field
Duration	3 weeks (minimum 120 – hours)
Mentorship	Assigned Faculty Mentor + Organization Supervisor
Weekly Reporting	Students submit weekly reports
Final Project Report	Comprehensive Report + PPT Presentation at the end
External Viva-Voce	Panel evaluation based on field experience, report, and presentation
Certificate	Issued jointly by Institute and Internship Organization (Optional co-branding with Skill Councils if needed)

Evaluation Criteria:

Parameters	**Weightage**
Weekly Reports	20%
Organization Supervisor Feedback	30%
Final Report	30%
Viva-Voce/Presentation	20%

Ater the completion the viva voce, the principal will then inform the university for necessary action of providing “Certificate” in Social Work in the faculty of Arts.

B.S.W.

(Exit Course Diploma)

Bhakta Kavi Narsinh Mehta University
Exit Course / Summer Internship for Diploma in Social Work
(as per NEP – 2020 SOP)
Faculty of Arts

Title: Exit Course / Summer Internship for Diploma
Duration: 3 weeks (120-hour)
Credits: 4 Credit
Eligibility: Diploma students after 4th semester

Course Objectives:

- To integrate classroom knowledge with field experiences.
- To enhance students' employability skills.
- To develop critical thinking, communication, teamwork, and problem-solving skills.
- To expose students to real-world challenges and organizational structures.
- To encourage innovation, leadership, and social responsibility.

Course Structure:

Component	**Details**
Orientation Program	2–3 days' workshop before internship (basic skills, workplace behaviour, reporting formats)
Internship Placement	In Companies, start-ups, hospitals, etc. based on student's interested field
Duration	3 weeks (minimum 120 – hours)
Mentorship	Assigned Faculty Mentor + Organization Supervisor
Weekly Reporting	Students submit weekly reports
Final Project Report	Comprehensive Report + PPT Presentation at the end
External Viva-Voce	Panel evaluation based on field experience, report, and presentation
Certificate	Issued jointly by Institute and Internship Organization (Optional co-branding with Skill Councils if needed)

Evaluation Criteria:

Parameters	**Weightage**
Weekly Reports	20%
Organization Supervisor Feedback	30%
Final Report	30%
Viva-Voce/Presentation	20%

Ater the completion the viva voce, the principal will then inform the university for necessary action of Arts or “Diploma” in respective Core Course.

GEOGRAPHY
(AFTER 1 Year)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Arts
Subject: GEOGRAPHY
Effective from June 2025
SEMESTER- 2

Programme	**B. A. SEM-2**	**Internal Marks**	**00**
Course Type	**Exit / Vocational Course – Voc-01**	**External Marks**	**00**
Course Credit	**04**	**Practical Internal**	**100**
Teaching Hours	**60**	**Practical External**	**00**
Course Title	**Basic Applied Geography**	**Total**	**100**
		Exam Duration	**----**

COURSE OBJECTIVES:

- To develop practical understanding of geographical concepts through field-based learning and observation.
- To provide exposure to rural landscapes, agricultural systems, animal husbandry practices, and primary economic activities.
- To enhance basic skills in geographical survey, mapping, data collection, environmental observation, and report writing.
- To promote awareness regarding rural livelihoods, natural resources, sustainable agriculture, and local economic development.
- To prepare students for entry-level employment, self-employment, and community-based development activities related to geography and rural economy.

COURSE OUTCOMES:

After completion of the course, students will be able to:

- Conduct basic geographical field surveys and prepare simple maps, charts, and reports.
- Understand the spatial organization of rural settlements, agricultural activities, and resource utilization.
- Explain the functioning of local agricultural systems, irrigation methods, and animal husbandry practices.
- Identify major primary economic activities and their role in rural development.
- Prepare structured field-based project reports using geographical methods and techniques.

COURSE RATIONALE

This course is designed in alignment with NEP–2020 guidelines for experiential learning, skill development, vocational exposure, and multiple exit options. It aims to provide practical geographical knowledge and field exposure to students exiting after the first year (UG Certificate Level). The course emphasizes rural geography, agriculture, animal husbandry, environmental awareness, and local resource-based economic activities.

COURSE CONTENTS

Students shall complete any ONE of the following activities (Total 60 Hours).

Unit No.	Title of the Unit & Topics	Hours
1	**Agricultural Practices & Irrigation Study** • Visit to agricultural farms and fields • Study of cropping patterns, soil conditions, irrigation methods, and farm inputs • Observation of agricultural technology and sustainable farming practices • Preparation of field-based report with maps/charts	60
2	**Animal Husbandry & Dairy Activity Study** • Visit to dairy farms, gaushalas, poultry farms, or livestock centres • Study of cattle rearing, milk production, fodder management, and veterinary services • Analysis of role of animal husbandry in rural economy • Preparation of field report and documentation	60
3	**Primary Economic Activities & Rural Livelihood Study** • Study of fishing, forestry, mining, handicrafts, salt production, or other local primary activities • Interaction with workers, farmers, and local producers • Observation of resource utilization and marketing systems • Preparation of impact-based geographical report	60
4	**SWAYAM 4-Credit MOOC (Geography Related)** • Enrolment in UGC-approved course • Completion of assignments and assessment • Submission of certificate	60

IMPORTANT NOTE:

- Students shall complete any one of the above activities.
- The activity-based course shall be of minimum 60 hours as per NEP-2020 SOP guidelines.
- Certificate from the concerned institution/organization (on letterhead) is mandatory wherever applicable.
- Students must submit a Project Report (Minimum 30 Pages).
- Evaluation will be done internally by the concerned subject teacher.

EVALUATION SCHEME (Internal – 100 Marks)
Components (Indicative) :

- Field Work / Participation
- Project Report (Minimum 25–30 Pages)
- Presentation / Viva
- Field Record / Practical Notebook
- Certification & Documentation
- Maps, Photographs, Charts, and Data Presentation

REFERENCES

- Majid Husain – Fundamentals of Human Geography
- R. L. Singh – Elements of Practical Geography
- Savindra Singh – Environmental Geography
- Jasbir Singh – Agricultural Geography
- Mohammad Shafi – Rural Geography
- B. L. Sharma – Practical Geography
- Census of India Publications
- Government of India – Agricultural Statistics at a Glance
- ICAR Publications on Agriculture and Animal Husbandry

ADDITIONAL RESOURCES (Free Web URLs)

- SWAYAM (MOOC Courses – Geography & Environment)
  https://swayam.gov.in
- NPTEL (Geography, Environment & GIS Courses)
  https://nptel.ac.in
- Survey of India – Maps and Geospatial Information
  https://www.surveyofindia.gov.in
- Indian Council of Agricultural Research (ICAR)
  https://icar.org.in
- Ministry of Agriculture & Farmers Welfare
  https://agricoop.gov.in
- National Dairy Development Board (NDDB)
  https://www.nddb.coop
- Ministry of Rural Development
  https://rural.nic.in
- India-WRIS Water Resources Information System
  https://indiawris.gov.in
- ISRO Bhuvan Geoportal
  https://bhuvan.nrsc.gov.in
- Census of India
  https://censusindia.gov.in
- Government of Gujarat – Agriculture and Rural Development Information
  https://gujaratindia.gov.in

GEOGRAPHY
(AFTER 2 Year)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Arts
Subject: GEOGRAPHY
Effective from June 2025
SEMESTER- 4

Programme	B. A. SEM-4	Internal Marks	00
Course Type	Exit / Vocational Course – Voc-02	External Marks	00
Course Credit	04	Practical Internal	100
Teaching Hours	60	Practical External	00
Course Title	Applied Rural, Social and Regional Geography	Total	100
		Exam Duration	----

COURSE OBJECTIVES:

- To develop intermediate-level geographical and spatial analytical skills.
- To train students in field-based geographical survey and rural area studies.
- To understand rural economic, social, environmental, and regional development issues.
- To introduce basic techniques of mapping, spatial interpretation, and geographical data presentation.
- To enhance employability skills related to rural planning, GIS awareness, survey work, environmental management, and development studies.
- To prepare students for entry-level roles in NGOs, rural development agencies, planning institutions, survey organizations, and government projects.

COURSE OUTCOMES:

After completion of the course, students will be able to:

- Conduct structured geographical field surveys and collect spatial and socio-economic data.
- Analyse rural economic activities, social structure, settlement patterns, and environmental conditions.
- Prepare thematic maps, field reports, and regional analytical studies.
- Interpret geographical data using simple statistical and cartographic techniques.
- Evaluate regional development problems and suggest sustainable solutions.
- Understand the relationship between geography, society, economy, and environment.

COURSE RATIONALE

As per NEP–2020 Multiple Exit Framework, students exiting after completion of two years (UG Diploma Level) should possess intermediate analytical ability, practical geographical knowledge, field survey competence, and employability-oriented skills.

This course emphasizes applied geography through rural studies, social and environmental analysis, regional planning exposure, village-level field investigation, and spatial interpretation in the context of Gujarat and India.

COURSE CONTENTS

Students shall complete any ONE of the following activities (Total 60 Hours)

Unit No.	Title of the Unit & Topics	Hours
1	**Rural Settlement and Village Geography Study** • Study of village settlement pattern and house types • Land use and agricultural activity analysis • Rural occupational structure and livelihood pattern • Mapping of village resources and infrastructure • Preparation of village geographical survey report	60
2	**Rural Economy and Agricultural Geography Study** • Study of cropping pattern and agricultural practices • Irrigation, soil, and water resource assessment • Agricultural marketing and rural economy analysis • Impact of climate variability on agriculture • Field survey and analytical project report	60
3	**Social Geography and Community Development Study** • Study of population structure and literacy pattern • Health, sanitation, and social infrastructure survey • Analysis of migration and rural social change • Women participation and self-help group activities • Community development analytical report	60
4	**Environmental and Resource Geography Study** • Study of local environmental problems • Water conservation and natural resource management • Waste management and rural environmental awareness • Human–environment interaction analysis • Environmental field report with suggestions	60
5	**UGC-Approved SWAYAM 4-Credit MOOC (Geography Related)** • Completion of approved course in Rural Development / GIS / Environmental Studies / Human Geography / Regional Planning etc. • Certificate submission	60

IMPORTANT NOTE:

- Students shall complete any one of the above activities.
- The activity-based course shall be of minimum 60 hours as per NEP-2020 SOP guidelines.
- Certificate from the concerned institution/organization (on letterhead) is mandatory wherever applicable.
- Students must submit a Project Report (Minimum approximately 30 Pages).
- Evaluation will be done internally by the concerned subject teacher.
- Field work, village survey, mapping, and data presentation shall form an essential component of the course.

EVALUATION SCHEME (Internal – 100 Marks)

Components (Indicative):

- Field Work / Village Survey / Data Collection
- Mapping and Spatial Presentation
- Analytical Project Report (30–40 Pages)
- Data Interpretation and Statistical Presentation
- Viva / Presentation

REFERENCES

- Majid Husain – Human Geography
- R. L. Singh – Elements of Practical Geography
- B. L. Sharma – Rural Geography
- Khullar – India: A Comprehensive Geography
- R. P. Mishra – Regional Planning
- S. D. Maurya – Social Geography
- Savindra Singh – Environmental Geography
- Census of India Reports (Latest Edition)

ADDITIONAL RESOURCES (Free Web URLs)

- **SWAYAM (MOOC Courses – Geography & Rural Development)**
  https://swayam.gov.in
- **NPTEL (Geography, GIS & Environmental Courses)**
  https://nptel.ac.in
- **ISRO – Bhuvan Geoportal**
  https://bhuvan.nrsc.gov.in
- **Survey of India**
  https://surveyofindia.gov.in
- **Census of India**
  https://censusindia.gov.in
- **Ministry of Rural Development – Government of India**
  https://rural.nic.in
- **National Remote Sensing Centre (NRSC)**
  https://www.nrsc.gov.in
- **National Atlas & Thematic Mapping Organisation (NATMO)**
  https://natmo.gov.in
- **India-WRIS (Water Resources Information System)**
  https://indiawris.gov.in
- **Ministry of Environment, Forest and Climate Change**
  https://moef.gov.in

RURAL STUDIES

Exit Course / Summer Internship
for Certificate / Diploma
(as per NEP- 2020 SOP)
Faculty of Rural Studies
Bhakta Kavi Narsinh Mehta University — Junagadh

- The students who want to leave the course after completion of one or two years (2 or 4 semesters) of the course, need to apply for the Exit Course/ Summer Internship of 120-hour duration, to the principal.
- The principal will place such students in the exit course to his or her core course related institutions for training of three weeks' duration.
- After completion of Exit course/ summer internship of required duration, the student is required to submit a certificate mentioning successful completion of training, to the principal.
- The principal will then inform the University for Necessary Action of providing "Certificate" in Rural Studies or "Diploma" in respective Core course.

B.A.
HOME SCIENCE

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of
Subject: Home Science
Effective from June 2025

Programme	B.A. Home Science		**Internal Marks**	25
Course Type	Exit Course		**External Marks**	50
Course Credit	3+1		**Practical Internal**	25
Teaching Hours	75		**Practical External**	-
Course Title	Bakery Science		**Total**	100
			Exam Duration	2 :00

COURSE OBJECTIVE:

- To provide foundational knowledge of bakery ingredients and their functional roles.
- To develop technical skills in preparation of bakery products like bread, cakes, cookies, and pastries.
- To understand the principles of baking technology and processing techniques.
- To impart knowledge about quality control, hygiene, and food safety standards in bakery production.
- To encourage creativity and innovation in bakery product development.

COURSE OUTCOME:

- Identify and select appropriate raw materials used in baking.
- Demonstrate the ability to prepare a range of baked goods with proper techniques.
- Understand the chemical and physical changes occurring during the baking process.
- Maintain hygiene and follow safety protocols during bakery production.
- Evaluate the sensory and nutritional quality of bakery products.
- Apply entrepreneurial skills for small-scale bakery unit setup or home-based business.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	Basic concepts of Bakery • Importance of bakery industry. • Importance of health & hygiene in bakery industry.	
2	Basic Ingredients used for bakery items • Ingredients used for bakery items- Refined flour, leavening a salt, sugar, fat, eggs, moisturizing agents, liquids, improvers preservatives. • Points to be considered while making bakery items.	
3	Common bakery faults and corrective measures for various products.	
4	Bakery equipments • Types, Selection, Operations and maintenance	

Practical:

Practical Training in Baking of

1. Cake
2. Biscuits-Sweets &Namkin
3. Nankhatai / Cookies

REFERENCE BOOKS:

1. Dubey, S.C. (2007). Basic Baking 5th Ed. Chanakya Mudrak Pvt.Ltd. Raina et.al. (2010). Basic food preparation-A Complete Manual. 4th Ed.Orient Black Swan Ltd.
2. Khanna K, Guptas, SethR, MahnaR, Rekhi T (2004). The Art and Science of Cooking: A Practical Manual, Revised Edition. Elite Publishing House Pvt.Ltd.
3. Dr Keshav Kamaliya (2010) Bakery Vignan & Udhyog.
4. Bakery VangioniBanavat - Hand book by Junagadh Krushi University,

B.A.
HOME SCIENCE

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Subject: Home Science
Effective from June 2025

Programme	B.A.Home Science		**Internal Marks**	25
Course Type	Exit Course		**External Marks**	50
Course Credit	3+1		**Practical Internal**	25
Teaching Hours	75		**Practical External**	-
Course Title	GARMENT SEWING TECHNIQUE		**Total**	100
			Exam Duration	2 :00

COURSE OBJECTIVE:

- To introduce students to basic and advanced garment sewing techniques.
- To develop precision and skill in handling sewing tools and machines.
- To understand the construction process of different types of garments.
- To promote knowledge of seams, finishes, and garment assembly.
- To enhance creativity and technical ability in designing and stitching garments.

COURSE OUTCOME:

- Students will be able to identify and use various sewing tools and machines efficiently.
- They will demonstrate proficiency in basic and complex stitching techniques.
- Learners will be capable of constructing well-fitted garments with proper finishing.
- They will understand the selection of appropriate fabric and techniques for different garments.
- Students will be able to apply garment construction knowledge in tailoring, fashion design, or small-scale entrepreneurship.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	Sewing Machine • History of Sewing Machine • Types of Sewing Machine • Care of Sewing Machine	
2	Sewing Equipment Sewing Techniques • Sems, Darts, Pleats, Tucks	
3	Techniques of Measurement • Points to be considered while measuring • Points to be considered while sewing work	
4	Pattern making technique. • Tools related to sewing and their usage • Common fault during sewing • Various words used in Sewing work	

Practical:

1. **Drafting and paper cutting advanced study of the figure, drafting by system should be taught for essential garments such as (Any Two)**
   - Blouse
   - Sari Petticoat
   - Salwar kurta
   - Baby Frock
2. **Use of sewing machine will be allowed where necessary such as (Any Two)**
   - Sems
   - Darts
   - Pleats
   - Tucks

REFERENCE BOOKS:

1. Modern pattern drafting and grooming for children clothing – Baroda.
2. Web: Basic process and clothing construction, New Raj Depot – New Delhi.
3. સીવણમાર્ગદર્શન, નિર્મળા મિસ્ત્રી
4. ટેલરીંગ એન્ડ ડ્રેશમેકિંગ, નિર્મળા મિસ્ત્રી

B.Sc.
HOME SCIENCE

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
B.Sc. Home Science
EXIT COURSE
PAPER FOR AFTER COMPLITION OF SECOND YEAR

Syllabus for B SC HS (HONOURS) AS PER NEP 2020
MAJOR GENERAL HOME SCIENCE EFFECTIVE FROM JUNE 2023

COURSE LEVEL	UG
SEMESTER	Completion of 4 AFTER 4, SEMESTER
COURSE TYPE	EXIT COURSE - 1
COURSE TITLE	**FoodSafetyandQualityControl**
COURSE NO/PAPER NO	04
CREDIT	04(3+1)
TEACHING HOURS	75
INTERNAL MARK	30
PRACTICAL MARK	20
EXTERNAL MARK	50
TOTAL	100
EXAM DURATION	2+2(T+P)

Food Safety and Quality Control

Theory

Course Objectives

1. Introduce students to the fundamental concepts of food safety, food quality, and their importance in public health and industry
2. Familiarize students with various types of food hazards —physical, chemical, biological, and allergens — and methods to control them
3. Develop an understanding of national and international food safety standards, regulations, and certifications (e.g., FSSAI, Codex, ISO, HACCP).
4. Equip students with knowledge of good manufacturing practices (GMP), good hygiene practices (GHP), and sanitation protocols in food production and handling
5. Provide practical skills for monitoring food quality parameters, performing basic food analysis, and applying quality control measures in food processing

Course Outcome

Basic concept of food microbiology & food safety

- History, Occurrence, and growth of microorganism in food
- Roleofmicroorganismsinfermentedproducts
- Food safety and importance of safe foods Prions, GM foods, Dioxin-contaminated foods importance of safe foods
- Factorsaffectingfoodsafety

Food hazards- Physical, Chemical, Biological Recent concerns of food safety

1. **Food safety in food service establishment**
   - Food Safety measures and sanitation in food service establishment and street foods
   - Personal hygiene and sanitation in food service establishment
2. **Risk analysis, assessment, and management**
   - Food safety assurance-HACCP, definition, important terms

Principles, guidelines and application and benefits of HACCP

3. Food regulation: Standards and quality control

- FSSAI
- Foodstandardsandregulations inIndia

-The Prevention of Food Adulteration Act,1954

- Compulsory National Legislations–FPO, Essential Commodities Act, Milk and Milk Product Act, Meat Product Control Order
- Voluntary based Product Certifications– BIS, Agmark, Consumer Protection Act, 1986
- Regulations related to Genetically Modified Foods
- International Organizations and Agreements in the area of Food Standardization and Quality Control

4. Food Adulteration

- Food Adulteration
- Foods Commonly adulterated
- Common Adulterants– Classification of Adulterants
- Harmful effects of Adulterants Food Borne Diseases

-FoodBorneInfections

- MethodsofDetectionofSomeAdulterants

PRACTICAL:

1. Demonstration of assessing/ removing food or Write a report on it.
2. Visit to a food testing laboratory and know about its activities
3. Arrange a expert talk on this course any one relevant topic

References

1. Sathe A. Y. (1999) A First Course in Food Analysis. 1. Edition, New Age International (P) Ltd., New Delhi.
2. Jacobs M. B. (1999) Chemical Analysis of Food and Food Products. 3" Edition, CBS Publishers & Distributors, New Delhi.
3. Food Science-Sri Lakshmi
4. Frazier, W. C, & Westhoff, D. 1988 Food Microbiology. Tata MeGraw-Hill
5. Guthrie, R. K. [ed].1972. Food sanitation Inc.EaglewoodC1ifTN.J

B.Sc.
Home Science

Syllabus for B SC HS (HONOURS) AS PER NEP 2020

MAJOR GENERAL HOME SCIENCE EFFECTIVE FROM JUNE 2023

COURSE LEVEL	UG
SEMESTER	Completion of 4. AFTER 4, SEMESTER
COURSE TYPE	EXIT COURSE - 2
COURSE TITLE	**Home Science Extension and Rural Development**
COURSE NO/PAPER NO	03
CREDIT	04(3+1)
TEACHING HOURS	75
INTERNAL MARK	30
PRACTICAL MARK	20
EXTERNAL MARK	50
TOTAL	100
EXAM DURATION	2+2(T+P)

Home Science Extension and Rural Development

Objectives:

To enable students to:

- Understand the extension process in Rural development work
- To Gain the Knowledge about Community Development
- Develop skills in the use of methods.

Outcome:

- Develop skills in communication and work with the people in the community.
- The course focus on the process of Extension process primary information especially in development work in rural and areas.

Theory

- Extension education – concept, need, and importance with special reference to Home Science,
- Philosophy, principles, and objectives. Concept and need of rural development, meaning aim and functions of extension education for rural development.
- Constraints in rural development. Changing scenario of rural India. Historical development of extension education – glimpses of evolution of extension during pre-independence era.
- Community development programme – concept, objectives organization, activities, achievement, and failures.
- Panchayati Raj Institutions - concept, structure, and function. Recent developmental programmes for rural families - WDP, SJSY, KVKs.
- Role of ICAR, SAUs and NGOs in rural development.

Practical

1. Visit to Gram Panchayat
2. Study of Developmental Programme related with women and children.
3. Visit to KVK.
4. Study of NGOs.

References:

1. Enderson (1972): Introduction to communication theories and practices. Cummings publishing house. California
2. Bernice Hurst (1996): The handbook of communication skills, Kogan Page Limited, London.
3. Chandra A. Shah A, Joshi U (1989): Fundamentals of teaching home science. Sterling publishers, New Delhi
4. Ray.G.L.9(fourth edition 1999): Extension Communication and Management. Naya Prakash, Calcutta, India.
5. Dhamma O.P. and Bhatnagar O.P.1987. Education Communication for Development. Oxford and IBH Publishing Co.Pvt Ltd.,New Delhi
6. ધકાનડી. (1998): વિસ્તરણશિક્ષણનાંમૂળતત્વો.,કનકડીપ્રકાશન.,જામનગર.
7. Dhakan D. (1998):Vistaran Shikshan na Multatvo,Kanak D Prakashan,Jamnagar.

B.Sc.
HOME SCIENCE

COURSE LEVEL	**UG**	**CODE**	**Exit Course – 1**
SEMESTER	**02 (after 2nd semester)**		
CORSE TYPE	**EXIT COURSE- PAPER - 1**		
COURSE TITLE	**BAKERY SCIENCE**		
COURSE NUMBER / PAPER NO.	**Exit - 2**		
CREDIT	**4 = 3+1**		
TEACHING HOURS	**45 (T) + 30 (P) 75**		
INTERNAL MARKS	**25**		
PRACTICAL MARKS	**25**		
EXTERNAL MARKS	**50**		
TOTAL	**100**		
EXAM DURATION	**2 hrs + 2 hrs (T+P)**		

OBJECTIVES

- Understand basic concepts of baking.
- To provide avenues for self-employment.
- To provide trained professionals in commercial units

Ch 1: Basic concepts of Bakery

- Importance of bakery industry.
- Importance of health & hygiene in bakery industry

Ch 2: Basic Ingredients used for bakery items.

- Ingredients used for bakery items- Refined flour, leavening agents, salt, sugar, fat, eggs, moisturizing agents, liquids,
- Improvers and preservatives.
- Points to be considered while making bakery items.

Ch 3: Common bakery faults and corrective measures for various bakery Products.

Ch 4: Bakery equipment's

- Types,
- Selection,
- Operations and maintenance

Practical

Practical Training in Baking of

1. Cake
2. Biscuits – Sweets &Namkin
3. Nankhatai / Cookie
4. Brawny

RECOMMANDED READINGS –

1. Dubey, S. C. (2007). Basic Baking 5th Ed. Chanakya Mudrak Pvt.Ltd. Raina
2. et.al. (2010). Basic food preparation-A Complete Manual. 4th Ed. Orient Black Swan Ltd.
3. Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). The Art and Science of
4. Cooking: A Practical Manual, Revised Edition. Elite Publishing House Pvt. Ltd.
5. Dr Keshav Kamaliya (2010) Bakery Vignan & Udhyog.
6. Bakery Vangioni Banavat – Hand book by Junagadh Krushi University, Junagadh

B.Sc.
Home Science

COURSE LEVEL	**UG**	**CODE**	**HSGEN2MAJ22**
SEMESTER	**02 (after 2nd semester)**		
CORSE TYPE	**EXIT COURSE – PAPER - 2**		
COURSE TITLE	**INTRODUCTION TO TEXTILE DESIGN**		
COURSE NUMBER / PAPER NO.	**Exit - 2**		
CREDIT	**4 = 3+1**		
TEACHING HOURS	**45 (T) + 30 (P) 75**		
INTERNAL MARKS	**25**		
PRACTICAL MARKS	**25**		
EXTERNAL MARKS	**50**		
TOTAL	**100**		
EXAM DURATION	**2 hrs + 2 hrs (T+P)**		

OBJECTIVES

- Developing Skills:
- Textile design programs aim to equip individuals with the skills needed for apparel design, garment construction, and textile manufacturing processes.
- A core objective is to provide a comprehensive understanding of textile manufacturing, including yarn production, fabric construction, and textile processing techniques.
- Career Development:
- Textile design programs often aim to prepare students for careers in various sectors of the textile industry, including manufacturing, design, and retail.

Ch 1 Surface Decoration –

- Embroidery
- Ari work
- Embellishments

Ch 2 Design through color application

- Painting
- **Dyeing** – Tie and dye, Batik
- Printing – Discharge, Resists: Block, Screen, Stencil

Ch 3 Thread structure

- Macramé,
- Braiding,
- Lace making (crochet, tatting)

Ch 4 Surface layering

- Appliqué – simple, cut, felt
- Quilting – hand and machine

Practical

1. Tie and Dyeing / Batik
2. Printing: - Block , Screen Stencil Discharge
3. macramé / lace making – Crochet
4. Surface layering – Appliqué work / quilting work .

RECOMMANDED READINGS -

1. Macall_s sewing in colour, Hamlyn
2. Singer sewing Book, Glady Cunningham, Golden Pr
3. Complete guide to sewing, Reader digest
4. Clothing construction, Evelyn A.Mansfield, Houghton miffin 1953
5. The technology of clothing manufacture, Harold Carr and Barbara Latham
6. John Wiley Wiley& sons. 1994
7. The Art of Sewing, Thomas (annajacob), UBS Publication distributer Ltd.
8. Isabel Sutherland Ed. Home dress making Pan Craft Book
9. Textiles- Fiber to Fabric (6 thEdition), Corbman, P.B., (1985) Gregg
10. Division/ Mc. Graw Hill Book Co., US.
11. Essentials of Textiles (6th Edition), Joseph, M.L., (1988) Holt, Rinehart and
12. Winston Inc., Florida.PH10. Textbook of Fabric Science: Fundamentals to
13. Finishing, Sekhri S., (2013) PHI Learning, Delhi.

B.B.A. (After 1 Year)

EXIT COURSE FOR THE STUDENTS WHO HAVE COMPLETED 1 YEAR OR 2 SEMESTERS OF B.B.A.

Certificate in Business Management
(upon exit after 1 year)
Foundations of Business Management

Course Duration: 60 Hours

No. of Units: 4

Mode: Classroom / Online / Blended

Target Learners: UG Students Business Management/ Administration Stream Students

Course Objectives

By the end of the course, students will be able to:

- **Understand the nature, scope, and key functions of management**, including recent developments such as MIS, TQM, and knowledge management.
- **Identify the major schools of management thought**, including contributions from classical, behavioral, and modern theorists, and apply basic tools such as **SWOT analysis** and the **7-S Model** in organizational planning.
- **Comprehend fundamental accounting principles and practices**, including the types of accounts, rules of debit and credit, journal and ledger operations, trial balance, and preparation of basic financial statements.
- **Gain insights into the Indian ethos in management**, understanding values drawn from texts such as the *Bhagavad Gita*, *Upanishads*, and *Ramayana*, with a focus on leadership, work ethics, and the principle of *Nishkama Karma*.
- **Explore the core branches of management**—Marketing, Finance, and Human Resources—and understand their foundational concepts, key terminologies, and inter-functional coordination in real-world business settings.
- **Apply integrated knowledge** of accounting, ethics, and management in problem-solving and decision-making situations relevant to business and entrepreneurship.

Course Structure

Unit 1: Fundamentals of Business Management (15 Hours)

- Nature and Scope of Management
- Key Functions of Management
- Chief Contributors of the School of Management Thoughts
- Employee Motivation: Concept and Types
- Mechanism of SWOT Analysis and 7-S Model
- Recent Trends in Management: Management Information System (MIS), Total Quality Management (TQM), Knowledge Management (KM), Work Life Balance

Unit 2: Introduction to Accounting Theory and Practice (15 Hours)

- Introduction to Accounting: Meaning, Objectives, and Importance
- Basic Accounting Terms: Assets, Liabilities, Capital, Income, Expenses, Drawings
- Types of Accounts: Personal, Real, Nominal
- Rules of Debit and Credit (Golden Rules)
- Journal Entries and Ledger Posting
- Trial Balance: Meaning, Purpose, and Preparation
- Introduction to Financial Statements: Profit & Loss Account and Balance Sheet

Unit 3: Indian Ethos in Business Management (15 Hours)

- Meaning and Importance of Indian Ethos in Management
- Principles from Indian Scriptures: Bhagavad Gita, Upanishads, Ramayana
- Concept of Dharma, Nishkama Karma, and Leadership
- Work Ethic and Value System in Indian Culture
- Applications of Indian Ethos in Modern Corporate World

Unit 4: Introduction to the Core Branches of Management (15 Hours)

- **Marketing Management:** Definition, nature, and objectives; Marketing Mix (4Ps); Basics of branding, market segmentation and consumer behaviour
- **Financial Management:** Definition, scope and significance in business; Basic concepts: Capital, revenue, expenses, profit, loss; Overview of financial planning, sources of finance and budgeting
- **Human Resource Management:** Concept and evolution of HRM; Key functions: Recruitment, selection, training, performance appraisal.

Suggested Pedagogy:

- Lectures and presentations
- Practical exercises (journal entries, ledger prep)

- Group projects on business models
- Case studies on startups or market trends
- Quizzes and concept tests

Recommended Reference Books:

1. Ramesh Rudani: *Principles of Management,* 2nd Ed., McGraw-Hill India Private Limited, New Delhi, India, 2014
2. **"Principles of Management"**, P.C. Tripathi & P.N. Reddy, Tata McGraw Hill, New Delhi, 2017.
3. **"Essentials of Management"**, Harold Koontz & Heinz Weihrich, McGraw Hill Education, New Delhi, 2015.
4. **"Management: Theory and Practice"**, C.B. Gupta, Sultan Chand & Sons, New Delhi, 2022.
5. **"Modern Business Organisation and Management"**, S.A. Sherlekar, Himalaya Publishing House, Mumbai, 2018.
6. **"Financial Accounting"**, T.S. Grewal, Sultan Chand & Sons, New Delhi, 2021.
7. **"Accounting Principles"**, M.N. Arora, Vikas Publishing House, New Delhi, 2022.
8. **"Fundamentals of Accounting"**, D.K. Goel, Arya Publications, New Delhi, 2023.
9. **"Introduction to Accountancy"**, T.S. Grewal & S.C. Gupta, S. Chand Publishing, New Delhi, 2020.
10. **Indian Ethos and Values in Management"**, R.N. Nandgaonkar & S.P. Bhandarkar, Himalaya Publishing House, Mumbai, 2019.
11. **"Indian Ethos in Management"**, S. Balachandran, G. Raja & N.K. Nair, Shroff Publishers, Mumbai, 2013.
12. **"Essence of the Bhagavad Gita: A Contemporary Management Perspective"**, E. Sreedharan & Bharat Wakhlu, Bloomsbury India, New Delhi, 2021.
13. **"Spirituality in Management: Means or End?"**, S.K. Chakraborty, Oxford University Press, New Delhi, 2005.
14. **"Marketing Management"**, Philip Kotler & Kevin Lane Keller, Pearson Education, New Delhi, 2020.
15. R. B. Rudani, *Basics of Marketing Management*, S. Chand & Company, New Delhi, 2014
16. **"Financial Management"**, I.M. Pandey, Vikas Publishing House, New Delhi, 2019.

17. **"Human Resource Management"**, Gary Dessler, Pearson Education, New Delhi, 2022.
18. **"Essentials of Marketing, HRM & Finance"**, R.S. Pillai & Bagavathi, S. Chand Publishing, New Delhi, 2021.

B.B.A. (After 2 Year)

EXIT COURSE FOR THE STUDENTS WHO HAVE COMPLETED 2 YEARS OR 4 SEMESTERS OF B.B.A.

Diploma in Business Administration
(upon exit after 2 years)
Foundations of Business Management

Course Credit: 4

Course Duration: 60 Hours

No. of Units: 4

Mode: Classroom / Online / Blended

Target Learners: UG Students, Business Management/Administration Stream Students

Course Objectives

By the end of the course, students will be able to:

- **Understand the fundamentals of organizational behaviour**, including personality, perception, motivation, leadership, and team dynamics and apply these concepts to real-world workplace scenarios.
- **Apply core principles of marketing and financial management**, including market segmentation, consumer behavior, financial planning and decision-making to solve business challenges.
- **Recognize the relevance of Indian Knowledge Systems (IKS)** such as Arthashastra, Rajadharma, and values from Indian scriptures in modern business contexts, particularly in ethics, leadership, and sustainability.
- **Demonstrate entrepreneurial thinking**, creativity, and innovation by generating viable business ideas, evaluating feasibility, and understanding the Indian startup ecosystem.

- **Develop cross-functional awareness** and connect insights from marketing, finance, human behaviour, and cultural ethics to solve complex business problems.
- **Prepare for entry-level roles or higher academic pursuits** by building a value-based, interdisciplinary foundation in management, entrepreneurship, and leadership.

Course Structure

Unit 1: Organizational Behaviour and Team Dynamics (15 Hours)

- Nature, scope and importance of Organizational Behaviour
- Personality traits, perception, and attitude in the workplace
- Motivation: Maslow, Herzberg, McGregor's Theory X and Y
- Leadership styles and team-building strategies
- Conflict resolution, negotiation, and organizational culture

Unit 2: Principles of Marketing and Financial Management (15 Hours)

Marketing Section

- Core concepts of marketing: needs, wants, value, and exchange
- STP: Segmentation, Targeting, and Positioning
- Consumer behaviour and digital marketing basics

Finance Section

- Basics of financial management: scope and objectives
- Sources of finance: long-term and short-term
- Cost structure and financial decision-making

Unit 3: Indian Knowledge System and Business Ethics (15 Hours)

- Ancient Indian governance and statecraft (Arthashastra, Rajadharma)
- Economic and trade systems in ancient India
- Values and work ethic in Indian scriptures (Gita, Upanishads, Ramayana)
- Concepts of Dharma, Nishkama Karma and selfless leadership
- Indian contributions to sustainable living and ethical entrepreneurship
- Applications of Indian ethos in modern business scenarios

Unit 4: Entrepreneurship, Innovation and Startup Ecosystem (15 Hours)

- Entrepreneurial mindset, Types of entrepreneurs
- Creativity, innovation and design thinking
- Business idea generation and opportunity evaluation
- Feasibility analysis and business model basics

- Government support programs: Startup India, Atmanirbhar Bharat, MSME
- Social entrepreneurship and innovation for rural/grassroots impact

Suggested Pedagogy:

- Lectures and presentations
- Group projects on business models
- Case studies on startups or market trends
- Quizzes and concept tests

Recommended Reference Books:

1. **"Organizational Behaviour"**, Stephen P. Robbins & Timothy A. Judge, Pearson Education, New Delhi, 2021.
2. **"Organizational Behaviour: Text and Cases"**, K. Aswathappa, Himalaya Publishing House, Mumbai, 2020.
3. **"Understanding Organizational Behaviour"**, Uday Pareek, Oxford University Press, New Delhi, 2019.
4. **"Management and Organizational Behaviour"**, Laurie J. Mullins, Pearson Education, New Delhi, 2017.
5. **"Marketing Management"**, Philip Kotler & Kevin Lane Keller, Pearson Education, New Delhi, 2020.
6. R. B. Rudani, *Basics of Marketing Management*, S. Chand & Company, New Delhi, 2014
7. **"Principles of Marketing"**, Philip Kotler & Gary Armstrong, Pearson Education, New Delhi, 2019.
8. **"Marketing Management"**, Rajan Saxena, McGraw Hill Education, New Delhi, 2020.
9. **"Financial Management: Theory and Practice"**, I.M. Pandey, Vikas Publishing House, New Delhi, 2022.
10. **"Fundamentals of Financial Management"**, Prasanna Chandra, McGraw Hill Education, New Delhi, 2021.
11. **"Financial Management"**, Khan & Jain, Tata McGraw Hill, New Delhi, 2020.
12. **"Indian Ethos in Management"**, S. Balachandran, G. Raja & N.K. Nair, Shroff Publishers, Mumbai, 2013.
13. **"Indian Ethos and Values in Management"**, R.N. Nandgaonkar & S.P. Bhandarkar, Himalaya Publishing House, Mumbai, 2019.
14. **"Spirituality in Management: Means or End?"**, S.K. Chakraborty, Oxford University Press, New Delhi, 2005.

15. **"Essence of the Bhagavad Gita: A Contemporary Management Perspective"**, E. Sreedharan & Bharat Wakhlu, Bloomsbury India, New Delhi, 2021.
16. **"Entrepreneurship Development"**, S.S. Khanka, S. Chand Publishing, New Delhi, 2021.
17. **"Entrepreneurship"**, Rajeev Roy, Oxford University Press, New Delhi, 2020.
18. **"Innovation and Entrepreneurship"**, Peter F. Drucker, Harper Business, New York, 2006.
19. **"Fundamentals of Entrepreneurship"**, H.N. Shukla, Himalaya Publishing House, Mumbai, 2020.

COMMERCE, FINANCE & ACCOUNTING (AFTER 1 YEAR)

EXIT COURSE FOR THE STUDENTS WHO HAVE COMPLETED 1 YEAR OR 2 SEMESTERS OF B.COM

Foundations of Commerce, Finance, and Accounting

Course Duration: 60 Hours

No. of Units: 4

Mode: Classroom / Online / Blended

Target Learners: UG Students (especially B.Com / BBA Completed one year of study) / Commerce Stream Students

Course Objectives

- Build Foundational Knowledge: Introduce students to the basic concepts and terminology of commerce, finance, and accounting, forming a strong foundation for advanced studies or career readiness.
- Develop Practical Accounting Skills: Enable students to understand and apply basic accounting principles, including recording of transactions, preparing ledger accounts, and interpreting financial statements.
- Familiarize with Commercial and Financial Systems: Provide an overview of the structure and functions of commerce, trade, financial institutions, and markets in the Indian and global context.
- Promote Financial Literacy: Equip learners with essential financial knowledge such as budgeting, cost control, savings, investments, and understanding financial products like mutual funds and insurance.
- Encourage Application-Oriented Learning: Use real-life examples, case studies, and practical assignments to connect theoretical concepts with current trends in business and finance (e.g., digital payments, e-commerce, and).
- Prepare for Higher Education or Entry-Level Roles: Help students transition smoothly into undergraduate commerce programs (e.g., B.Com, BBA) or develop competency for entry-level positions in business and finance sectors.

- Support Entrepreneurial Thinking: Introduce students to the basics of business finance and financial planning, encouraging them to think like entrepreneurs and understand how businesses are financially managed.
- Enhance Digital Competence: Introduce learners to digital tools and concepts like e-commerce platforms, Tally basics, online banking, and accounting software to align with industry requirements.

Course Structure

Unit 1: Essentials of Commerce and Trade (15 Hours)

- Nature and Scope of Commerce
- Branches of Commerce: Trade & Aids to Trade
- Types of Trade: Internal and International
- Business Organisations: Sole Proprietorship, Partnership, Joint Stock Company
- E-Commerce and Digital Trade
- Recent Trends in Commerce (Startup India, Make in India, Digital India)

Unit 2: Fundamentals of Accounting (15 Hours)

- Introduction to Accounting and its Objectives
- Types of Accounts (Personal, Real, Nominal)
- Basic Accounting Terms (Assets, Liabilities, Capital, Income, Expenditure, etc.)
- Double Entry System & Rules of Debit and Credit
- Journal Entries and Ledger
- Trial Balance and Basic Error Rectification
- Introduction to Financial Statements (P&L A/c and Balance Sheet)

Unit 3: Basics of Financial System and Markets (15 Hours)

- Introduction to Financial System
- Components: Financial Institutions, Financial Markets, Financial Instruments
- Indian Banking System: RBI, Public & Private Banks, Cooperative Banks
- Stock Market Basics: NSE, BSE, SEBI
- Mutual Funds, Insurance, and Financial Services
- Introduction to Fintech and Digital Payments

Unit 4: Introduction to Business Finance and Budgeting (15 Hours)

- Meaning and Importance of Business Finance
- Sources of Business Finance: Long-term & Short-term
- Capital Structure & Cost of Capital
- Budgeting and Forecasting
- Break-even Analysis
- Financial Planning for Small Businesses / Startups

Suggested Pedagogy:

- Lectures and presentations
- Practical exercises (journal entries, ledger prep)
- Group projects on business models
- Case studies on startups or market trends
- Quizzes and concept tests

Recommended Reference Books:

- "Business Studies" – NCERT (Class XI & XII) Covers fundamental concepts of commerce and trade clearly for beginners.
- "Elements of Business" – Aryasri A good introductory book on the Indian business environment and commerce basics.
- "Modern Business Organisation and Management" – Sherlekar & SherlekarExplains business types, trade, and management principles in depth.
- "Double Entry Book Keeping"* (Vol. 1) – T.S. Grewal (Sultan Chand & Sons)
- "Introduction to Accountancy"* – S.N. Maheshwari & S.K. Maheshwari Excellent for college-level fundamentals of accounting.
- "Financial Accounting"* – Jain & Narang Detailed explanation of accounting procedures and journal entries.
- "Indian Financial System"* – M.Y. Khan A comprehensive guide to financial institutions, instruments, and markets.
- "Financial Markets and Services"* – E. Gordon & K. Natarajan - Covers SEBI, stock exchanges, and mutual funds with updated examples.
- "Essentials of Banking and Insurance"* – Jyotsna Sethi & Nishwan Bhatia Simple language book for understanding Indian banking and insurance sectors.
- "Fundamentals of Financial Management"* – Prasanna Chandra - Strong foundation in business finance, budgeting, and financial analysis.
- "Financial Management: Principles and Practice"* – R.P. Rastogi - Suitable for understanding financial planning and sources of finance.
- "Business Finance"* – S.C. Kuchhal - Classic reference on the basics of finance in business context.

Supplementary Reading (Optional but Beneficial)*

- Tally Prime with GST* – Kogent Learning Solutions (For students interested in computerized accounting basics)
- Financial Literacy Textbook* – CBSE / NCERT (Provides a beginner-friendly introduction to money management and finance)

COMMERCE, FINANCE & ACCOUNTING (AFTER 2 YEAR)

EXIT COURSE FOR THE STUDENTS WHO HAVE COMPLETED 2 YEAR OR 4 SEMESTERS OF B.COM
"Advanced Concepts in Commerce, Finance, and Accounting"

Course Credit: 4

Course Duration: 60 Hours

No. of Units: 4

Mode: Classroom / Online / Blended

Target Learners: Final Year Senior Secondary Students / First-Year UG Commerce Students

Course Objectives

- Strengthen Advanced Understanding: Help students grasp deeper commercial, financial, and accounting concepts for real-world application.
- Apply Practical Accounting Methods: Equip learners with hands-on skills in preparing ledgers, final accounts, and using computerized tools.
- Analyze Financial Systems and Market Mechanisms: Enable students to critically analyze the functions of financial institutions and stock markets.
- Promote Strategic Financial Thinking: Foster an understanding of financial decision-making, capital budgeting, and cost analysis.
- Introduce Legal and Regulatory Environment: Provide an overview of business law and regulatory frameworks (e.g., GST, Companies Act basics).
- Bridge Theory and Industry Practice: Use case studies, simulations, and project work to connect textbook knowledge with market realities.
- Develop Entrepreneurial and Tech Skills: Introduce financial planning tools, budgeting software, and insights into entrepreneurial finance.
- Enhance Readiness for Higher Studies and Jobs: Prepare students for academic progression or entry-level roles in accounting, banking, and business.

Course Structure

Unit 1: Advanced Business Environment and Policies (15 Hours)

- Indian Business Environment: Liberalization, Privatization, Globalization (LPG)
- Government Policies and Business Strategy
- Start-up Ecosystem and MSMEs
- E-Governance and Ease of Doing Business
- International Business and Trade Agreements (WTO, FTA)

Unit 2: Financial and Cost Accounting (15 Hours)

- Final Accounts of Sole Proprietorship and Partnership
- Depreciation Accounting and Inventory Valuation
- Bank Reconciliation Statement
- Cost Accounting: Elements and Classification of Cost
- Introduction to Cost Sheet and Marginal Costing

Unit 3: Banking, Finance and Capital Market (15 Hours)

- Indian Financial Institutions: RBI, NABARD, SIDBI
- Money Market vs. Capital Market
- Primary & Secondary Market Operations
- Securities Trading Process and Demat Account
- Role of SEBI and Investor Protection

Unit 4: Business Finance and Planning (15 Hours)

- Capital Budgeting Techniques (Payback, NPV basics)
- Working Capital Management
- Personal Financial Planning and Tax Basics
- Budget Preparation and Variance Analysis
- Use of Software Tools for Budgeting & Finance (MS Excel, Tally overview)

Suggested Pedagogy

- Lectures with real-world examples and case discussions
- Hands-on accounting exercises and ledger work
- Software demonstrations (Tally, MS Excel)
- Group activities like mock budget preparation
- Guest lectures by industry professionals
- Role plays, quizzes, and concept mapping
- Use of simulation models and financial tools

Suggested Reference Books

- Commerce & Business Environment:

  - Business Environment – Francis Cherunilam

  - Modern Business Organisation and Management – Sherlekar & Sherlekar

- Accounting:

  - Advanced Accountancy Vol 1 – R.L. Gupta & Radhaswamy

  - Cost Accounting – M.N. Arora

  - Financial Accounting – Jain & Narang

- Finance & Markets:

  - Indian Financial System – M.Y. Khan

  - Financial Management – I.M. Pandey

  - Essentials of Business Finance – R.M. Shrivastava

- Budgeting & Planning:

  - Fundamentals of Financial Management – Prasanna Chandra

  - Introduction to Budgeting and Forecasting – Harvard Business Essentials

  - Tally ERP/Prime Guidebooks – Kogent Learning

COMMERCE & BANKING

BHAKTA KAVI NARSINH MEHTA UNIVERSITY

Exit Course as per NEP-2020

(EXIT course for Certificate / Diploma)

Faculty of Commerce and Banking

Subject: Vocational / Industrial Training OR Soft skills for Business run by SWAYAM

Effective from June 2025

Programme		**Internal Marks**	
Course Type		**External Marks**	
Course Credit	4	**Practical Internal**	
Teaching Hours		**Practical External**	
Course Title	Vocational / Industrial Training OR Soft skills for Business run by SWAYAM	**Total** **Exam Duration**	

The following is the mandatory for the students opting for exit after 1st year with UG certificate OR after 2nd year with UG Diploma Certificate.

Mandatory Vocational / Industrial Training (4 Weeks) OR complete the following course run by the SWAYAM (Study Webs of Active-learning for Young Aspiring Minds). It is an Indian Massive Open Online Course (MOOC) platform launched by the Government of India. SWAYAM provide free access to online this course.

For Course Title : Vocational / Industrial Training :

COURSE OBJECTIVES and OUTCOMES :

- Apply theoretical concepts of commerce and management to real-world business scenarios.
- Gain insights into the internal structure, hierarchy, and workflows of an organization.
- Enhance communication, teamwork, and interpersonal skills in a professional setting.
- Learn to analyze business problems and contribute to decision-making processes
- Build a professional network and receive mentorship from experienced professionals.

To conduct effective research using appropriate methodology and tools to gather and interpret the data

For Course Title : Soft skills for Business – run by SWAYAM

COURSE OBJECTIVES : The main objectives of the course is to develop the students soft skills regarding Develop communication excellence, to foster team work, problem solving and decision making, time management etc which are necessary to run the business successfully .

COURSE OUTCOMES :

The students will master key soft skills that complement technical expertise, improve workplace interactions, and contribute to overall business success.:

COURSE CONTENTS :

Week 1: Introduction to Soft Skills

Week 2: Foundations of Teamwork

Week 3: Emotional Intelligence (EI)

Week 4: Adaptability in a Changing Environment

Week 5: Leadership Fundamentals

Week 6: Advanced Leadership Skills

Week 7: Problem Solving Strategies

Week 8: Integration and Application

Books and references :

• Carnegie, D. (1998). How to win friends and influence people.

• https://www.forbes.com/advisor/in/business/soft-skills-examples/

• https://in.indeed.com/career-advice/resumes-cover-letters/soft-skills

• https://blog.hubspot.com/marketing/soft-skills

NOTE : After completion of Exit course - Vocational / Industrial Training OR Soft skills for Business run by SWAYAM , the student is required to submit a certificate mentioning successful completion of Vocational/Industrial training

OR Soft skills for Business run by SWAYAM to the principal. The principal will then inform the university for necessary action of providing Certificate or UG Diploma in respective Course.

BHAKTA KAVI NARSINH MEHTA UNIVERSITY-JUNAGADH

Summer Internship/Apprenticeship in the Major Discipline or Multi Discipline course for Under Graduate (UG) Certificate - Exit Course as per NEP-2020
(EXIT course for Certificate / Diploma)

Faculty of Commerce and Banking

Effective from June 2025

Exit-1 (AS PER NEP 2020 – SOP) A Under Gradate (UG) certificate is awarded if a student successfully completes year one (two semester) and secures 44 credits. Additionally, the student needs to acquire an extra 4 credits through a summer internship/apprenticeship in the major discipline or multidisciplinary course.

Title : Exit Course - Summer Internship/Apprenticeship for Under Graduate Certificate in Commerce Graduate
Duration : 3 Week (120 Hrs.)
Created : 4
Eligibility : After successfully completed semester 1 & 2 in commerce.

Course Objective:

- To integrate classroom knowledge with field experiences
- To enhance students' employability skills.
- To develop critical thinking, communication, teamwork and problem solving skills
- To expose student to real world challenges and organization structures.
- To encourage innovation, leadership and social responsibility.

Course Structure:

Component	Details
Internship Placement	In financial institution namely Government Bank, Private Bank, Co-Operative Bank, SEBI Register MF advisor firm, Professional CA firm etc.
Duration	3 Weeks (Minimum 120 Hrs.)
Mentorship	Assigned faculty mentor by concern college authority plus organization supervisor
Weekly Report	Student submit weekly reports to the mentorship
Final Report	Student submit final reports to assigned faculty mentor
Certificates	Student submit certificate provided by concern institution to the assigned faculty mentors

Evaluation Criteria:

Parameters	Weightage
Weekly Report	30%
Organization Supervisor Feedback	30%
Final Report	20%
Viva-Voce/Presentation	20%

After the complication the viva-voce/the principal will than submit both the certificates to the university for necessary action of providing graduation certificate in commerce.

BHAKTA KAVI NARSINH MEHTA UNIVERSITY-JUNAGADH

Summer Internship/Apprenticeship in the Major Discipline or Multi Discipline course for Under Graduate (UG) Diploma - Exit Course as per NEP-2020
(EXIT course for Certificate / Diploma)

Faculty of Commerce and Banking

Effective from June 2025

Exit-2: (AS PER NEP 2020 – SOP) A Under Graduate (UG) diploma is awarded if a student exits after two years (four semesters) with 88 credits, including 44 credit at Lever 5.0. The students must also gain an additional 4 credits through a summer internship/apprenticeship in the major discipline or multidisciplinary course.

Title : **Exit Course - Summer Internship/Apprenticeship for Under Graduate Diploma in Commerce Graduate**
Duration : **3 Week (120 Hrs.)**
Created : **4**
Eligibility : **After successfully completed semester 3 & 4 in Commerce.**

Course Objective:

- To integrate classroom knowledge with field experiences
- To enhance students' employability skills.
- To develop critical thinking, communication, teamwork and problem solving skills
- To expose student to real world challenges and organization structures.
- To encourage innovation, leadership and social responsibility.

Course Structure:

Component	Details
Internship Placement	In local manufacturing industries, business organization etc.
Duration	3 Weeks (Minimum 120 Hrs.)
Mentorship	Assigned faculty mentor by concern college authority plus organization supervisor
Weekly Report	Student submit weekly reports to the mentorship
Final Report	Student submit final reports to assigned faculty mentor
Certificates	Student submit certificate provided by concern institution to the assigned faculty mentors

Component of final report:

The final project report must be an original one and contain the following criteria area of commerce.

- Accounting and Finance
- Financial Management
- Human Resource Management
- Marketing Management

Evaluation Criteria:

Parameters	Weightage
Final Report	50%
Viva-Voce/Presentation	50%

After the complication the viva-voce/the principal will than submit both the certificate to the university for necessary action of providing graduation diploma in commerce.

B.C.A. & B.Sc. (IT)
(AFTER 1 Year)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Computer Science
Subject: Computer Science – Certificate / Diploma
Effective from June 2025

Programme	**BCA & B.Sc.(IT)**		**Internal Marks**	**--**
Course Type	**Exit Course**		**External Marks**	**--**
Course Credit	**04**		**Practical Internal**	**--**
Teaching Hours	**As per NEP Guideline**		**Practical External**	**--**
Course Title	**Exit Course after First Year (NCrF Level 4.5)**		**Total**	**--**
			Exam Duration	**--**

COURSE OBJECTIVE: Students can exit the program after completing the first year with a Certificate qualification, which reflects their foundational learning and skill development**.**

COURSE OUTCOME: The exit courses are designed to cover the basics of the discipline, ensuring that students acquire a practical skill set and a conceptual understanding in a specialized area.

COURSE CONTENTS
There are SWAYAM, and government-approved platforms offering computer science courses with certifications.

Students must successfully complete Semesters 1 and 2 with 44 academic credits, and earn an additional 4 credits through any one of the following modules related courses.

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**1. NPTEL (National Programme on Technology Enhanced Learning)**: NPTEL is a project funded by the Ministry of Education of India and offers online courses and certifications, particularly for technical subjects like computer science. **OR** **2. National Skill Development Corporation (NSDC):** NSDC is a government initiative that provides skill development programs across various fields, including computer science and IT. Their courses are focused on practical skills to make students industry-ready. **OR** **3. e-Governance Courses from the Ministry of Electronics and Information Technology (MeitY):** MeitY offers various e-governance, cybersecurity, and IT-related courses to enhance digital literacy and e-governance across India. These courses are provided in collaboration with leading educational institutions **OR** **4. IIT Bombay's Online Courses (Through SWAYAM & NPTEL):** IIT Bombay offers several technical and computer science courses through SWAYAM and NPTEL platforms. These courses are conducted by faculty from IIT Bombay and other IITs, ensuring high-quality education. **OR** **5.** Or Any Other Courses which are follow the guidelines of NEP 2020 /BKNM University. **OR**	**As Per NEP / Course/Internship Criteria**

	6. All 4-credit courses must be from government-approved online portals (e.g., SWAYAM, NPTEL, UGC MOOCs). If a student opts not to take an online course for any 4-credit slot, they must undertake a structured internship of equivalent credit and hours.	

This option allows students to leave with a valid qualification and return later without losing their academic progress, as per the rules of Bhakta Kavi Narsinh Mehta University. It follows the ME-ME concept of NEP-2020, supporting lifelong learning and career growth.

Suggestive Courses:
The courses listed below are only suggestive and not compulsory for this program. Students may choose any other government-approved online courses worth 4 credits.

1. Web Development Fundamentals
2. Digital Marketing
3. Data Entry Operator
4. HTML
5. Basic Graphic Designing
6. Office Automation
7. Or Any Other Govt. Approved Course

OR

Internship Module (4 Credits) – Sr.No.06

About Internship:

Students who wish to exit the program after completing the first year (two semesters) and obtain a Certificate in Computer Application must earn four internship credits, provided they have no academic backlogs.

A key aspect of the internship is induction into real-world work environments. These internships involve hands-on experience with local industries, government or private organizations, businesses, artists, craftspeople, and similar entities. This provides students with valuable on-site experiential learning opportunities.

To be eligible for the multi-level exit option, students must enrol in and complete these four credits and provide the necessary evidence of completion upon successfully finishing the first year or second year of the program.

- Certification: Internship Completion Certificate (with hours, credits & mentor sign-off) must be submitted.

REFERENCE BOOKS: Refer Courses related authentic websites.

Special Note: According to the National Education Policy (NEP) 2020, the framework for exit courses in higher education is designed to allow students to exit a degree program after completing one or two years, depending on their academic progress and career goals. These exit options are structured to ensure that students gain meaningful qualifications at each stage, even if they decide not to continue with the full degree program. *All the above certification courses and internship rules and regulations are based on NEP 2020 and BKNM University guidelines; please adhere to these standards exclusively.*

B.C.A. & B.Sc. (IT)
(AFTER 2 Year)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Computer Science
Subject: Computer Science – Certificate / Diploma
Effective from June 2025

Programme	**BCA & B.Sc.(IT)**		**Internal Marks**	**--**
Course Type	**Exit Course**		**External Marks**	**--**
Course Credit	**04**		**Practical Internal**	**--**
Teaching Hours	**As per NEP Guideline**		**Practical External**	**--**
Course Title	**Exit Course after Second Year (NCrF Level 5.0)**		**Total**	**--**
			Exam Duration	**--**

COURSE OBJECTIVE: Students can exit the program after completing two years with a Diploma qualification. At this stage, students will have a deeper understanding of the subject area and additional practical skills compared to the 1st-year exit.

COURSE OUTCOME: The courses at this level are more advanced, allowing students to specialize in various areas and gain industry-ready skills. The diploma courses build upon the foundation laid in the first year.

COURSE CONTENTS

There are SWAYAM, and government-approved platforms offering computer science courses with certifications.

Students Successfully Complete Semesters 1 to 4 with 88 credits, and earn 4 extra credits by choosing one module from below courses/internship.

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**1. NPTEL (National Programme on Technology Enhanced Learning)**: NPTEL is a project funded by the Ministry of Education of India and offers online courses and certifications, particularly for technical subjects like computer science. **OR** **2. UGC MOOCs (University Grants Commission's Massive Open Online Courses):** The UGC, under the Ministry of Education, offers a platform for MOOCs (Massive Open Online Courses). These courses cover various subjects, including computer science, and are provided by recognized universities. **OR** **3. National Skill Development Corporation (NSDC):** NSDC is a government initiative that provides skill development programs across various fields, including computer science and IT. Their courses are focused on practical skills to make students industry-ready. **OR** **4. e-Governance Courses from the Ministry of Electronics and Information Technology (MeitY):** MeitY offers various e-governance, cybersecurity, and IT-related courses to enhance digital literacy and e-governance across India. These courses are provided in collaboration with leading educational institutions	**As Per NEP / Course/Internship Criteria**

	OR **5. IIT Bombay's Online Courses (Through SWAYAM & NPTEL):** IIT Bombay offers several technical and computer science courses through SWAYAM and NPTEL platforms. These courses are conducted by faculty from IIT Bombay and other IITs, ensuring high-quality education. **OR** **6.** Or Any Other Courses which are follow the guidelines of NEP 2020 /BKNM University. **OR** **7**. All 4-credit courses must be from government-approved online portals (e.g., SWAYAM, NPTEL, UGC MOOCs). If a student opts not to take an online course for any 4-credit slot, they must undertake a structured internship of equivalent credit and hours.	

This flexible exit option allows students to get a recognized UG Diploma and rejoin the program later without losing their academic progress. It supports jobs, entrepreneurship, and lifelong learning as per NEP-2020 and the rules of Bhakta Kavi Narsinh Mehta University.

Suggestive Courses:
The courses listed below are only suggestive and not compulsory for this program. Students may choose any other government-approved online courses worth 4 credits.

1. Web Development Fundamentals
2. Introduction to Cyber Security
3. Python for Data Science
4. Fundamentals of Information Technology
5. Computer Hardware Maintenance
6. Or Any Other Govt. Approved Course

OR

Internship Module (4 Credits) – Sr.No.07

About Internship:

Students who wish to exit the program after completing the second year (four semesters) and obtain a Diploma in Computer Application, must earn four internship credits, provided they have no academic backlogs.

A key aspect of the internship is induction into real-world work environments. These internships involve hands-on experience with local industries, government or private organizations, businesses, artists, craftspeople, and similar entities. This provides students with valuable on-site experiential learning opportunities.

To be eligible for the multi-level exit option, students must enrol in and complete these four credits and provide the necessary evidence of completion upon successfully finishing the first year or second year of the program.

- Certification: Internship Completion Certificate (with hours, credits & mentor sign-off) must be submitted.

REFERENCE BOOKS: Refer Courses related authentic websites.

Special Note: According to the National Education Policy (NEP) 2020, the framework for exit courses in higher education is designed to allow students to exit a degree program after completing one or two years, depending on their academic progress and career goals. These exit options are structured to ensure that students gain meaningful qualifications at each stage, even if they decide not to continue with the full degree

program. *All the above certification courses and internship rules and regulations are based on NEP 2020 and BKNM University guidelines; please adhere to these standards exclusively*.

CHEMISTRY

(CERTIFICATE COURSE)

SUMMARY OF THE EXIT-1 COURSE FOR UG CERTIFICATE IN BSC CHEMISTRY SUBJECT

(After completion of Sem-II-44 Credits)

Sem No.	Sr. No.	Category of Course	Course Code	Course Title	Course Level	Credit	Teaching Hrs.	SEE Marks	CCE Marks	Total Marks	SEE Evaluation Exam Duration
Sem -3	1	Exit Course in Major Chemistry	EXITCHEM-1	Exit Chemistry-1- Synthesis and estimation of organic compounds	4.5	4	8P	50	50	100	8.hrs.

EXIT Chemistry-1 [Practical Course]

Course Level	4.5.		Internal Marks	50
Programme	B.Sc Chemistry		External Marks	50
Semester	2		Practical Internal	50
Category of Course	EXIT COURSE (Chemistry)		Practical External	50
Course Credit	4		Practical Exam Duration	8(P) Hrs
Teaching Hours	8P		External Theory	-
Course Code	**EXITCHEM1**		External Practical Exam Duration	8(P) hrs
Course Title	**Exit Chemistry-1 Volumetric estimations and synthesis of simple organic compounds.**			

Course Objectives:

- Familiarize the students with the methods used to estimate the quantity of simple organic compounds. Also, acquaint them with the skill of carrying out simple organic synthesis.

Course Learning Outcomes: After completion of the course:

- The learner will be able to practically carryout quantitative estimation of some known organic compounds containing functional groups like amide, ester, phenols, amines, carboxylic acid or compounds like glucose in a solution using simple chemical reactions processes at the end of which the change can be estimated by titrimetric methods.
- Practically carry out and handle various types of organic synthetic reactions like Nucleophilic substitution reaction, Electrophilic aromatic substitution reaction, diazotization, and coupling reactions, oxidation reactions etc of simple compounds. They will also be able to calculate yield, carry out crystallization choosing appropriate solvents and record m.p of the obtained crystals.

Syllabus for Exit course after completion of two semesters

Course: Exit Course in Chemistry [Practical]

Course Title: Exit Chemistry-1 Volumetric estimations and synthesis of simple organic compounds.

Code: EXITCHEM1

	Unit No.	Syllabi	Teaching Hours
Exit-1	1	**Organic Volumetric Estimation**: [Standard solution may be prepared by the students. Six-Estimations may be given] 1. To determine the amount of –CONH2 in the given Acetamide solution 2. To determine the amount of Phenol / m-cresol in the given solution 3. To determine the amount of Aniline / p-toludine in the given solution 4. To determine the amount of Ester in the given solution 5. To determine the amount of Glucose in the given solution 6. To determine the amount of –COOH in the given carboxylic acid	**60P**
	2	**Organic Synthesis: [Minimum 10syntheses should be done]** (Percentage of yield, crystallization, melting point) **i. Acetylation / Benzoylation** 1. Acetylation of salicylic acid 2. Acelytation of aniline 3. Acelytation of phenol 4. Benzoylation of aniline 5. Benzoylation of phenol **ii. Aliphatic Electrophilic substitution** 1. Preparation of iodoform from ethanol 2. Preparation of iodoform from acetone **iii. Aromatic Electrophilic Substitution** **Nitration:** 1. Preparation of m-dinitrobenzene, 2. Preparation of nitro acetanilide. **Halogenation:** 1. Preparation of p-bromo acetanilide,	**60P**

		2. Preparation 2:4:6 -tribromo phenol **iv. Diazotization / Coupling** 1. Preparation of methyl orange 2. Preparation of methyl red **v. Oxidation** 1. Preparation of benzoic acid from benzaldehyde	

Suggested Reading:

1. Fundamental of Analytical Chemistry by Skoog and West
2. Analytical Chemistry by Dick
3. Jack T. Ballinger; Gersshon J. Shugar. Chemical Technicians' Ready Reference Hand book, 5th Edition, 2011, ISBN:9780071745925, The McGraw-Hill com, Inc
4. Vogel's Text book of practical organic chemistry.
5. Practical Analytical Chemistry by Atul H. Bapodra; LAP LAMBERT Academic publishing, ISBN 978-613-8-32440-9
6. Joshi H. S; Comprehensive practical Analytical Chemistry.
7. A Hand book of analytical chemistry by Subhash and Satish, Pragati prakashan. Meerut.
8. Hakishan, V.K. Kapoor: Medicinal and Pharmaceutical Chemistry, Vallabh Prakashan, Pitampura, New Delhi.
9. Graham Patrick - An introduction to drug synthesis, Oxford University Press (2015)
10. Designing Organic Synthesis – S. Warren, Wiley.
11. Organic Synthesis –Concept, Methods, Starting Materials – J. Fuhrhop.
12. Modern Synthetic Reactions – H. O. House, W. A. Benjamin.

PRACTICAL INTERNAL EVALUATION SCHEME		
NO	**Particulars**	**Marks**
1	**Mid Practical Exam (Mandatory)**	**25**
2	Class Test	05
3	Open book exam/test	05
4	Open note exam/test	05
5	Self-test/ Online test	05
6	Essay/Article writing	05
7	Quizzes/Objective test	05
8	Class assignment	05
9	Home assignment	05
10	Reports Writing	05
11	Research/Dissertation	05
12	Case Studies	05
13	Viva/Oral exam	05
14	Group Discussion	05
15	Role Play	05
16	Paper presentation/Seminar	05
17	Language Lab work	05
18	Interview	05
19	Craft work	05
20	Co-curricular work	05
21	Field Assignment	05
22	Poster Presentation	05
23	Attendance	05
24	Project Work	05
	Total	**50**

Note: Sr.No.1 is mandatory. Select any five from Sr.No.2 to 24. Each Contains five marks. Student should secure 18 Marks for passing in internal Exam.

Practical: 25 Mid-term (practical) + 25 CCE + 50 External Practical;
Total Exam = 100 marks.

External Practical Exam Paper Style

Ques. No.	Particulars	Exercise Marks	Viva	Marks
Exercise-1 4-Hrs	Give preparation of any one enlisted organic compound.	15	10	**25**
Exercise-2 4-Hrs	Give estimation of any one organic compound.	15	10	**25**
			Total Marks	**50**

The students may be provided both the exercises simultaneously and asked to submit both the answer sheets at the end of session two.

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CHEMISTRY
(DIPLOMA COURSE)

SUMMARY OF THE EXIT-2 COURSE FOR UG DIPLOMA IN BSC CHEMISTRY SUBJECT

(After completion of Sem-IV -88Credits)

Sem No.	Sr. No.	Category of Course	Course Code	Course Title	Course Level	Credit	Teaching Hrs.	SEE Marks	CCE Marks	Total Marks	SEE Evaluation Exam Duration
Sem -3	1	Exit Course in Major Chemistry	EXITCHEM2	**Exit-Chemistry -2 Some organic and physiochemical analytical techniques**	4.5	4	8P	50	50	100	8.hrs.

EXIT Chemistry-2 [Practical Course]

Course Level	5.0		Internal Marks	50
Programme	B. Sc. Chemistry		External Marks	50
Semester	4		Practical Internal	50
Category of Course	EXIT COURSE (Chemistry)		Practical External	50
Course Credit	4		Practical Exam Duration	8 (P) Hrs
Teaching Hours	8P		External Theory	-
Course Code	**EXITCHEM2**		External Practical Exam Duration	8(P)hrs
Course Title	**Exit-Chemistry-2 Some organic and physicochemical analytical techniques**			

Course Objectives:

- The course aims to enhance laboratory proficiency by teaching students both separation techniques and physicochemical analysis for a variety of chemical systems.
- Enable students to develop practical skills to separate and identify components from a binary organic mixture. Provide hands-on experience with various instruments (Viscometer, stalagmometer, Refractometer, Polarimeter) and techniques to study the physical and chemical properties of substances.

Course Learning Outcomes: After completion of the course the learners will can:

- Effectively separate, purify, and identify components of a binary organic mixture using extraction, crystallization, and other techniques.
- Work as a physical chemist in various laboratories involving experiments based on measurements using various instruments and carryout exercises useful in industrial and analytical labs like:
- Perform conductometric titrations and calculate thermodynamic parameters like enthalpy and entropy.
- Measure refractive index and viscosity, and interpret molecular properties influencing

them.

- Measure optical rotation.
- Measure surface tension to explore molecular interactions in liquids.

Syllabus for Exit course after completion of four semesters

Course: Exit Course in Chemistry [Practical]

Course Title: Exit Chemistry-2 Volumetric estimations and synthesis of simple organic compounds.

Code: EXITCHEM2

	Unit No	Syllabi	Teaching Hours
Exit -2	**1**	**Organic Separation (Mixture of two compounds)** ***[15 binary mixtures may be provided for separation and identification of the compound]*** Separation & Analysis of an organic mixture containing (a) Two solid components using water, $NaHCO_3$, NaOH and HCl for separation (b) Liquid + liquid component - separation by physical method. (c) Liquid + solid component - separation by physical method. *Note: Students may be trained to be able to carry out separation of binary mixture in exam without use of laboratory manual.*	**60**
	2	**Physicochemical Exercise** ***[Minimum 10 exercises should be done]*** **i. Refractometer** 1. To determine specific refractivity and molecular refractivity of given pure liquid A, B, C, D. 2. To determine specific refractivity and molecular refractivity of glycerine (10%, 5%, 2.5%) and unknown glycerine solution. **ii. Viscosity** 1. To determine relative and absolute viscosity of pure liquid A, B, C, D by Ostwald's viscometer.	**60**

		2. Preparation three different 10%, 5%, 2.5% aqueous solution of glycerine, find viscosity of these three solutions as well as unknown concentration solution with the help Ostwald's viscometer. **iii. Polarimeter** 1. To determine specific rotation of three different concentration (10%, 5%, 2.5%) of dextrose solution. From graph find out the unknown. 2. Study the inversion rate of sugar in presence of 1N HCl and determine the rate of reaction. **iv. Surface tension:** 1. Find the surface tension of the liquids A, B and C by using drop weight method. Find the value of parachor of liquid and CH_2 group. 2. Comparison of cleansing power of various detergent powders. **v. Chromatography** 1. To determine Rf value of individual and mixture of amino acid by ascending paper chromatography. 2. To determine Rf value of individual and mixture of amino acid by circular paper chromatography. 3. To determine Rf value of individual and mixture of amino acid by thin layer chromatography (TLC). 4. To determine Rf value of individual and mixture of metal ions by ascending paper chromatography. 5. To determine Rf value of individual and mixture of metal ions by circular paper chromatography. **vi. Thermodynamics:** 1. Calculate entropy of vaporization (ΔS_v) of a given liquid by plotting a graph of log (1/time) vs (1/temperature)	

Suggested Reading:

1) Elements of Physical Chemistry, Late B.R. Puri, L. R. Sharma and Madan
2) Pathania, Vishal Publishing Co. Jalandhar

3) Principles of Physical Chemistry, Samule H. Maron and Carl F. Prutton, Oxford &
4) IBH Publishing Co. Pvt. Ltd. New Delhi
5) Physical Chemistry, B. K. Sharma, Goel Publication House. Meerut.
6) Elements of Physical Chemistry, Samuel Glasstone and David Lewis, Macmillan & Co.
7) Thermodynamics by Gurudeeep Raj
8) Thin Layer Chromatography by Egal Stall
9) Thermodynamics for Chemists by Samuel Glasstone
10) A Textbook of Quantitative Inorganic Analysis by A. I. Vogel
11) Inorganic inflictive analysis by Vogel and Gehani Parekh
12) Reigel's Handbook of Industrial Chemistry by James A. Kent
13) Fundamental of Analytical Chemistry by Skoog and West
14) Instrumental Methods of Chemical Analysis by B. K. Sharma
15) Instrumental Method of Chemical Analysis by Chatwal Anand
16) 'Extraction Techniques in Analytical Sciences' , by John R. Dean
17) Joshi H. S; Comprehensive practical Analytical Chemistry.
18) Practical Analytical Chemistry by Atul H. Bapodra; LAP LAMBERT Academic publishing, ISBN 978-613-8-32440-9

Evaluation scheme for various courses

Scheme-1 Internal Evaluation Scheme (50 marks) for 4 credit 100 marks course		
NO	**Particulars**	**Marks**
1	**Mid Semester Practical Exam (Mandatory)**	**25**
2	Class Test	05
3	Open book exam/test	05
4	Practical skills	05
5	Self-test/ Online test	05
6	Quizzes/Objective test	05
7	Class assignment	05
8	Home assignment	05
9	Research/Dissertation	05
10	Viva/Oral exam	05
11	Group Discussion	05
12	Paper presentation/Seminar	05
13	Co-curricular work	05
14	Field Assignment	05
15	Poster Presentation	05
16	Attendance	05
17	Project Work/Journal	05
	Total	**50**

Note: Sr.No.1 is mandatory. Select **any five** from **Sr.No.2 to 17**. Each contains five marks.

Student should secure **18/50 Marks** for **passing** in **internal Exam.**

Practical External exam: 25 Mid-term (practical) + 25 CCE + 50 External Practical
Total marks = 100

Paper Style External Practical Exam

Exercise	Particulars	Exercise Marks	Viva	Marks
Exercise-1 (4-hrs)	Give organic binary mixture separation and identification of individual components	15	10	**25**
Exercise-2 4-hrs	Physicochemical exercise or Chromatographic separation of two component	15	10	**25**
			Total Marks	**50**

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MATHEMATICS

(EXIT COURSE FOR CERTIFICATE)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course for Certificate as per NEP-2020
Faculty of Science
Subject: Mathematics
Effective from June 2025

Programme	**B.Sc. (Hons.) Mathematics**		**Internal Marks**	**50**
Course Type	**Exit Course for Certificate**		**External Marks**	**50**
Course Credit	**04**		**Practical Internal**	**---**
Teaching Hours	**60**		**Practical External**	**---**
Course Title	**Essential Mathematics for Competitive Examinations**		**Total**	**100**
			Exam Duration	**2 Hours**

Course Objectives:

- To strengthen fundamental arithmetic operations and number sense required for quick calculations.
- To develop proficiency in solving problems related to percentages, profit & loss, and simple & compound interest.
- To enable students to tackle problems involving time, work, speed, distance, and related concepts.
- To build a strong understanding of ratio, proportion, and partnership concepts.
- To introduce foundational algebraic concepts and their application in solving equations.
- To train students in interpreting and analyzing data presented in various graphical and tabular formats.
- To enhance problem-solving speed and accuracy through practice with simplification, approximation, and number series.
- To familiarize students with basic Mensuration concepts for calculating areas and volumes of common geometric shapes.
- To introduce the fundamental principles of permutation, combination, and probability.
- To develop strategic thinking for attempting quantitative aptitude questions effectively under timed conditions.

Course Learning Outcomes: Upon successful completion of this course, students will be able to:

- Perform arithmetic operations (addition, subtraction, multiplication, division) efficiently and accurately, including decimals and fractions.
- Calculate percentages, profit/loss, simple interest, and compound interest for various scenarios.
- Solve problems on time & work, pipes & cisterns, time & distance, boats & streams, and trains.
- Apply concepts of ratio, proportion, average, mixtures & alligations, and partnership to solve practical problems.
- Solve linear and quadratic equations and compare variables based on given conditions.
- Interpret and analyze data from bar graphs, pie charts, line graphs, and tables to answer related questions accurately.
- Identify patterns in number series and apply simplification and approximation techniques to complex calculations.

- Calculate the area and volume of basic 2D and 3D geometric shapes (e.g., square, rectangle, circle, cylinder, cone, sphere).
- Apply the basic principles of permutation, combination, and probability to solve introductory problems.
- Manage time effectively during quantitative aptitude tests and employ shortcut methods for faster problem-solving.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**Basic Arithmetic and Number System** **Number System:** Classification of numbers (Natural, Whole, Integers, Rational, Irrational, Real, Prime, Composite, Even, Odd), Divisibility Rules, LCM and HCF, Fractions and Decimals. **Simplification and Approximation:** BODMAS Rule, Square roots and Cube roots, Percentage to fraction conversion, Approximation techniques. **Averages:** Basic concept and formula, Weighted average, Problems related to average age, speed. **Ratio and Proportion:** Basic concepts, types of ratios, Compound ratio, Inverse ratio, Proportion (direct, inverse), Problems on age. **Percentages:** Definition and calculation of percentages, Percentage increase/decrease, Applications in daily life.	**15**
2	**Commercial Mathematics** **Profit and Loss:** Cost Price, Selling Price, Marked Price,Profit/Loss percentage, Discount, Successive discounts. **Simple and Compound Interest:** Formulas for Simple Interest (SI), Formulas for Compound Interest (CI), Difference between SI and CI, Applications involving instalments. **Partnership:** Introduction to partnership, Calculation of profit/loss sharing based on investment and time. **Mixtures and Alligations:** Rule of Alligation, Problems on mixing different quantities.\ **Data Sufficiency:** Understanding the concept, Solving questions where you need to determine if the given data is sufficient to answer the question.	**15**
3	**Time, Work, Speed & Mensuration** **Time and Work:** Work done by individuals and groups, Pipes and Cisterns, Efficiency based problems. **Time, Speed and Distance:** Basic formulas (Distance = Speed x Time), Average speed, Problems on trains (relative speed), Boats and Streams (upstream/downstream speed). **Mensuration (Basic 2D and 3D):** 2D Shapes: Area and Perimeter of Square, Rectangle, Triangle, Circle, Rhombus, Trapezium, Parallelogram, 3D Shapes: Surface Area and Volume of Cuboid, Cube, Cylinder, Cone, Sphere. **Clocks and Calendars:** Basic concepts of angle between hands of a clock, Finding day of the week for a given date.	**15**
4	**Algebra, Data Interpretation & Advanced Topics**	**15**

	Basic Algebra: Linear Equations in one and two variables, Quadratic Equations: Factorization method, Quadratic formula, Comparing roots, Algebraic identities (basic). **Number Series:** Identifying patterns (arithmetic progression, geometric progression, differences, squares, cubes, alternate patterns, mixed patterns), Finding missing terms or wrong terms. **Data Interpretation (DI):** Types of DI: Tabular Data, Bar Graphs, Pie Charts, Line Graphs, solving questions involving percentages, ratios, averages, and comparisons based on given data sets. **Permutation, Combination, and Probability (Basic):** Permutation: Arrangement of objects, Combination: Selection of objects, Probability: Basic concept, events, sample space, simple probability problems.	

REFERENCE BOOKS:

1. **Quantitative Aptitude for Competitive Examinations**
   Author: Dr. R.S. Aggarwal
   Publishing House: S. Chand Publishing
   ISBN: 978-9355012326
2. **Magical Book on Quicker Maths**
   Author: M. Tyra
   Publishing House: BSC Publishing Co Pvt Ltd
   ISBN: 978-9381577227
3. **Fast Track Objective Arithmetic**
   Author: Rajesh Verma
   Publishing House: Arihant Publications
   ISBN: 978-9326197298

MATHEMATICS

(EXIT COURSE FOR DIPLOMA)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course for Diploma (Digital Literacy) as per NEP-2020
Faculty of Science
Subject: Mathematics
Effective from June 2025

Programme	**B.Sc. (Hons.) Mathematics**		**Internal Marks**	**50**
Course Type	**Exit Course for Diploma**		**External Marks**	**50**
Course Credit	**04**		**Practical Internal**	**---**
Teaching Hours	**60**		**Practical External**	**---**
Course Title	**Digital Literacy**		**Total**	**100**
			Exam Duration	**2 Hours**

Course Objectives:

- To familiarize students with the fundamental concepts of digital literacy and the essential components of computer systems.
- To enable students to understand the vision and impact of the Digital India initiative on the nation's digital landscape.
- To equip students with proficiency in using widely adopted digital productivity tools for document creation, data management, and presentation design.
- To foster effective digital communication skills, including professional email etiquette and the responsible use of online platforms.
- To empower students to leverage collaborative digital tools for enhanced teamwork and information sharing in academic and professional settings.
- To educate students on various e-governance services and digital financial tools available for convenient citizen-centric interactions.
- To cultivate an understanding of online security threats and best practices for protecting personal information and privacy in the digital realm.
- To instill principles of ethical digital citizenship, including respect for intellectual property and responsible online conduct.
- To develop critical thinking skills necessary for evaluating digital information, identifying misinformation, and navigating the online world safely.
- To introduce students to emerging technologies and their potential societal impact, fostering an awareness of future digital trends.

Course Learning Outcomes: Upon successful completion of this course, students will be able to:

- Define digital literacy and explain the basic architecture and functioning of a computer system, including hardware, software, and operating systems.
- Utilize a word processing application to create, format, and manage professional documents, incorporating tables, images, and various page layouts.
- Perform basic data entry, formula creation, and data manipulation in a spreadsheet application, including sorting, filtering, and generating simple charts.
- Design and deliver effective presentations using presentation software, integrating text, multimedia, and appropriate transitions.
- Apply effective search strategies to retrieve information from the World Wide Web and differentiate between reliable and unreliable online sources.

- Communicate professionally via email, managing accounts, composing messages, and adhering to proper email etiquette.
- Collaborate on digital documents and projects using online platforms and access common e-governance services and digital payment methods provided by the Digital India initiative.
- Identify common cyber threats (e.g., phishing, malware) and implement basic cybersecurity measures to protect personal data and online privacy.
- Practice ethical online behaviour, understanding concepts like copyright, plagiarism, digital footprint, and the importance of netiquette.
- Recognize and articulate the basic concepts and societal implications of select emerging technologies such as AI, IoT, and Cloud Computing.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**Foundations of the Digital World & Computer Essentials** **Understanding Digital Literacy:** Definition and its importance in the 21st century, Digital India initiative and its vision, Benefits and challenges of the digital age. **Computer Basics:** Components of a computer system: Hardware (CPU, Memory, Storage, Input/Output devices) and Software (System Software, Application Software),Types of computers (desktops, laptops, mobile devices, servers), Basic operations: input, processing, output, storage, Understanding memory and storage devices (RAM, ROM, Hard Drive, SSD, Cloud Storage). **Operating Systems:** Introduction to popular operating systems (Windows, macOS, Linux, Android, iOS), File and folder management basics, Basic system settings and personalization. **Data Representation (Basic Overview):** Understanding binary, decimal, and hexadecimal concepts.	**15**
2	**Digital Productivity Tools** **Word Processing (e.g., Microsoft Word / Google Docs):** Creating, editing, and formatting documents, Inserting tables, images, and other objects, Page layout, printing, and saving in various formats. **Spreadsheets (e.g., Microsoft Excel / Google Sheets):** Creating and managing worksheets, Basic formulas and functions for calculations, Data sorting, filtering, and simple charting. **Presentations (e.g., Microsoft PowerPoint / Google Slides):** Creating and designing presentations, Adding text, images, and multimedia,Slide transitions and animations,Tips for delivering effective presentations. **Introduction to Databases (Basic Concept):** What is a database? Purpose and basic terms (table, record, field).	**15**
3	**Digital Communication, Collaboration & Online Services** **Internet and World Wide Web:** Introduction to the Internet, Intranet, and Extranet, Web browsers and their functions, Search engines and effective search techniques, Understanding URLs, domains, and web addresses. **Digital Communication Tools:** Email communication: Creating and managing email accounts, composing, sending, receiving, organizing emails, email	**15**

	etiquette, Instant messaging and video conferencing tools (e.g., Zoom, Google Meet), Social media platforms and their responsible use. **Collaborative Digital Platforms:** Tools for online learning (LMS platforms like Moodle, Google Classroom), File sharing and collaborative document editing (e.g., Google Docs, Microsoft 365). **E-Governance and Digital Services:** Overview of Digital India services (DigiLocker, e-Hospitals, e-Pathshala, BHIM, Swayam Portal), Online citizen services and their utilization, Cashless transactions and digital financial tools (UPI, e-Wallets).	
4	**Unit 4: Digital Citizenship, Safety & Emerging Trends** **Online Security and Privacy:** Understanding cyber threats (viruses, malware, phishing, ransomware), Importance of strong passwords and two-factor authentication, Privacy settings on social media and other online platforms, Protecting personal information online. **Cybersecurity Initiatives in India:** Brief overview of government initiatives related to cybersecurity. **Digital Footprint and Online Reputation:** Understanding the concept of your digital footprint, Managing your online reputation. **Ethical Use of Digital Resources:** Copyright, plagiarism, and fair use in the digital world, Netiquette and responsible online behaviour, Cyberbullying and online harassment. **Critical Evaluation of Digital Information:** Identifying fake news and misinformation, Fact-checking and verifying information online, Developing critical thinking skills in the digital age. **Introduction to Emerging Technologies (Brief Overview):** Concepts of Cloud Computing, Big Data, Artificial Intelligence (AI), Internet of Things (IoT), Blockchain Technology, Virtual Reality – focusing on their basic concepts and societal impact.	**15**

REFERENCE BOOKS:

1. **"Understanding Digital Literacies: A Practical Introduction"** by Rodney Jones and Christopher Hafner., Routledge Publications (Taylor & Francis Books India Private Limited), New Delhi-110001. ISBN: Paperback (Softcover): 978-1138041738 Hardcover: 978-1138041721
2. **"Information Technology: Principles and Applications"** by A. S. Godbole., PHI Learning Private Limited (formerly Prentice-Hall of India). ISBN-13: 978-8120321847 / ISBN-10: 8120321847
3. **"Information Technology Essentials: An Introduction to Information Technology"** by O'Brien and Marakas., McGraw Hill Education ISBN: 978-0073376722 (for the 8th Edition)
4. Relevant government portals and websites (Digital India, MyGov, etc.) for e-governance services.
5. Online open educational resources (OERs) on digital literacy.

[Teaching Methodology: Interactive lectures, demonstrations, hands-on practical sessions, group activities, case studies, discussions, workshops on e-services.]

PHYSICS
(Certificate Course)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY

Exit Course for Certificate (Basics of Physics) as per NEP-2020

Faculty of Science

Subject: Physics

Effective from June 2025

Programme	**B.Sc. (Hons.) Physics**		**Internal Marks**	**50**
Course Type	**Exit Course for Certificate**		**External Marks**	**50**
Course Credit	**04**		**Practical Internal**	**---**
Teaching Hours	**60**		**Practical External**	**---**
Course Title	**Basics of Physics**		**Total**	**100**
			Exam Duration	**2 Hours**

Course Objectives:

- The primary objective of this course is to provide foundational knowledge and conceptual clarity in Physics for undergraduate students. The course is designed to:
- **To introduce the fundamental nature of Physics** as a science and its close relationship with mathematics in modelling natural phenomena.
- **To familiarize students with the system of physical units**, base units, and dimensional analysis to strengthen their problem-solving approach.
- **To develop a strong conceptual understanding of vector algebra** and its application in physical systems, including scalar and vector products.
- **To provide a comprehensive foundation in kinematics**, enabling students to describe and analyse motion in one and two dimensions, including projectile motion.
- **To build a basic understanding of electrostatics**, including electric charge, Coulomb's law, electric field, and electric potential.
- **To enable students to analyse electric fields and potentials** generated by point charges and dipoles, and understand their practical implications.
- **To prepare students for advanced topics** by grounding them in core physical concepts and mathematical tools essential for further studies in physics.

Course Learning Outcomes: After successful completion of this course, students will be able to:

- **Define and explain** the nature, scope, and significance of Physics and its relationship with mathematics.
- **Identify and use** SI base units, perform dimensional analysis, and apply the concept of order of magnitude in solving physical problems.
- **Understand and apply vector algebra** including scalar and vector products in analysing physical quantities and forces.

- **Differentiate between scalars and vectors**, and solve problems involving vector addition, resolution, and multiplication.
- **Describe and analyse motion** in one and two dimensions, including displacement, velocity, acceleration, and projectile motion.
- **Apply the concepts of kinematics** to solve numerical problems involving rest, motion, and trajectories in straight and curved paths.
- **Explain the concept of electric charge**, and apply Coulomb's law to determine the force between point charges.
- **Visualize and interpret electric fields**, lines of force, and electric potential in various configurations.
- **Calculate electric potential and potential energy** due to point charges and dipoles, and understand their interrelations.
- **Establish the relationship** between electric field and electric potential through differential and graphical understanding

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**Introduction to Physics** What Is Physics, Physics and Mathematics, Units, Definitions of Base Units, Dimension, Uses of Dimension, Order of Magnitude, The Structure of World	**15**
2	**Physics and Mathematics** Vectors and Scalars, Equality of Vectors, Addition of Vectors, Multiplication of a Vector by a Number, Subtraction of Vectors, Resolution of Vectors, Dot Product or Scalar Product of Two Vectors, Cross Product or Vector Product of Two Vectors	**15**
3	**Rest and Motion: Kinematics** Rest and Motion, Distance and Displacement, Average Speed and Instantaneous Speed, Average Velocity and Instantaneous Velocity, Average Acceleration and Instantaneous Acceleration, Motion in a Straight Line, Motion in a Plane, Projectile Motion	**15**
4	**Electric Field and Potential** What Is Electric Charge? Coulomb's Law, Electric Field, Lines of Electric Force, Electric Potential Energy, Electric Potential, Electric Potential due to a Point Charge, Relation between Electric Field and Potential, Electric Dipole	**15**

REFERENCE BOOKS:

1. Concept of Physics Part – 1,2 By H C Verma, Publishers: Bharati Bhawan
2. Mechanics Berkeley Physics Course Vol – 1
3. Lectures on Physics, R.P. Feynman, Vol – 1
4. Physics – Resnick and Halliday.

PHYSICS

(Exit Course for Diploma)

Programme	**B.Sc. (Hons.) Physics**		**Internal Marks**	**50**
Course Type	**Exit Course for Diploma**		**External Marks**	**50**
Course Credit	**04**		**Practical Internal**	**---**
Teaching Hours	**60**		**Practical External**	**---**
Course Title	**Basic Principles of Fluids, Electricity, and Magnetism**		**Total**	**100**
			Exam Duration	**2 Hours**

Course Objectives:

- The objective of this course is to introduce students to the fundamental concepts and physical principles governing fluid mechanics, electric and magnetic fields, and the magnetic properties of materials. Students will:
- Understand the behavior of fluids under various conditions, including static and dynamic flow.
- Apply Pascal's law, Archimedes' principle, and Bernoulli's equation to solve real-world problems involving fluid motion and pressure.
- Comprehend the concept of electric flux and solid angle, and use Gauss's Law to determine electric fields due to symmetric charge distributions.
- Analyse the motion of charged particles in magnetic fields and understand magnetic forces on currents.
- Explore the magnetic properties of different materials and understand phenomena such as hysteresis, Curie's law, and magnetic susceptibility.
- This foundational knowledge will help students develop problem-solving skills and prepare for more advanced studies in classical and modern physics.

Course Learning Outcomes: By the end of this course, students will be able to:

- **Explain the properties of fluids** and apply concepts like pressure, Pascal's Law, and Archimedes' Principle to real-world fluid systems.
- **Analyse fluid motion** using the continuity equation and Bernoulli's equation for different flow conditions such as steady, turbulent, and irrotational flow.
- **Calculate electric flux and electric fields** using Gauss's Law for various symmetrical charge distributions.
- **Understand the relationship between electric fields and solid angles**, and derive Gauss's Law from Coulomb's Law.
- **Describe magnetic fields and forces**, including the motion of charged particles in magnetic fields and the effect of magnetic fields on current-carrying conductors.

- **Evaluate the torque acting on current loops** and relate it to the behavior of electric motors and magnetic dipoles.
- **Classify magnetic materials** based on their behavior (diamagnetic, paramagnetic, ferromagnetic) and explain their characteristics.
- **Apply concepts like magnetic susceptibility, permeability, and Curie's Law** to understand the temperature dependence of magnetism.
- **Interpret hysteresis loops** and differentiate between soft and hard magnetic materials based on their magnetic properties.
- **Develop critical thinking and analytical skills** by solving conceptual and numerical problems related to fluid dynamics, electric fields, and magnetic behavior.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**Fluid Mechanics** Fluids, Pressure in a Fluid, Pascal's Law, Atmospheric Pressure and Barometer, Archimedes' Principle, Pressure Difference and Buoyant, Force in Accelerating Fluids, Flow of Fluids, Steady and Turbulent Flow, Irrotational Flow of an Incompressible and Nonviscous Fluid, Equation of Continu, Bernoulli's Equation, Applications of Bernoulli's Equation	**15**
2	**Gauss's Law** Flux of an Electric Field through a Surface, Solid Angle, Gauss's Law and Its Derivation from Coulomb's Law, Applications of Gauss's Law, Spherical Charge Distributions, Earthing a Conductor	**15**
3	**Magnetic Field** Introduction, Definition of Magnetic Field *B*, Relation between Electric and Magnetic Fields, Motion of a Charged Particle in a Uniform Magnetic Field, Magnetic Force on a Current-carrying Wire, Torque on a Current Loop	**15**
4	**Magnetic Properties of Matter** Magnetization of Materials: Intensity of Magnetization, Paramagnetism, Ferromagnetism and Diamagnetism, Magnetic Intensity *H*, Magnetic Susceptibility, Permeability, Curie's Law, Properties of Dia-, Para- and Ferromagnetic Substances, Hysteresis, Soft Iron and Steel	**15**

REFERENCE BOOKS:

1. Concept of Physics Part – 1,2 By H C Verma, Publishers: Bharati Bhawan
2. Mechanics Berkeley Physics Course Vol – 1,2
3. Lectures on Physics, R.P. Feynman, Vol – 1,2
4. Physics – Resnick and Halliday.

FORENSIC SCIENCE

(Certificate Course)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Certificate course
Syllabus of diploma as per NEP-2020
Faculty of Science
Effective from June 2025
Subject: Forensic Science

Course Level	Exit Course-1		**Internal Marks**	50
Programme	**Certificate course**		**External Marks**	50
Category of Course	Certificate Course for Forensic Science		**Practical Internal**	-
Course Credit	4		**Practical External**	-
Teaching Hours	60		**Total**	100
Course Code			**Exam Duration**	2 Hours
Course Title	Certificate Course of Forensic Science			

Course Outcome:

- Describe instrumentation, techniques, types of interference, and background correction methods.
- Perform basic quantitative analysis using AAS data.
- Explain the theory, principles, and instrumentation of NMR.
- Interpret NMR spectra to derive structural information of compounds relevant to forensic chemistry.
- Understand the construction, working principles, and types of lasers (He-Ne, Argon ion, dye, and semiconductor lasers).
- Explain how lasers are applied in forensic detection and analysis.
- Describe key thermal techniques such as Differential Scanning Calorimetry (DSC), Differential Thermal Analysis (DTA), and Thermo gravimetric Analysis (TGA).
- Analyse forensic materials based on thermal properties.
- Define law-related terms like FIR, court, judge, and differentiate between civil and criminal law.
- Explain the objectives and types of punishments, and concepts like primary and sanctioning rights.
- Distinguish between cognizable/non-cognizable and Bailable/non-Bailable offences.
- Describe the classification of crimes and the hierarchy of criminal courts in India.
- Analyse important IPC sections (e.g., 302, 304A, 354, 375, etc.) and their forensic implications.
- Understand how amendments to these laws impact forensic investigation.
- Interpret sections from the Indian Evidence Act and CrPC that are directly related to forensic testimony and expert evidence.
- Assess the legal admissibility and significance of forensic evidence in judicial proceedings.
- Gain awareness of key acts like the Dowry Prohibition Act, POSCO Act, Wildlife Protection Act, IT Act, and NDPS Act.
- Discuss their relevance in criminal justice and forensic application.

BHAKTA KAVI NARSINH MEHTA UNIVERSITY

Certificate course

Syllabus of diploma as per NEP-2020

Faculty of Science

Effective from June 2025

Subject: Forensic Science

Course Contents

Unit No.	Syllabus	Teaching Hours
1	**Unit – I Different types of Spectroscopy** • Atomic Absorption spectroscopy: Instrumentation and techniques, interference in AAS, background correction methods, quantitative analysis. • Nuclear Magnetic Resonance spectroscopy: Basic principles, theory and Instrumentation	**15**
2	**Unit – II Laser and Thermal Analysis Method** • Laser (He, Ne, Argon ion, dye lasers, semiconductor lasers) Introduction, Principle of laser, Kinds of lasers, Construction and working of He-Ne laser, Applications of lasers. • Thermal analysis methods, Basic principles and theory, differential scanning colorimetric and differential analysis, thermal gravimetric.	**15**
3	**Unit – III introduction to Law and judiciary system** • Definition of Law, Court, Judge, FIR, difference between civil and criminal Justice, object and kind of punishment, Primary and Sanctioning rights • Law to combat Crime- classification – civil, criminal cases, constitution and hierarchy of criminal courts, • Criminal procedure code- cognizable and non-cognizable offences. Bailable and nonbailable offences.	**15**
4	**Unit – IV Laws specific to Forensic Science** • Indian penal code – sections 121A, 299, 300, 302, 304A, 304B, 307, 309, 319, 320, 351, 354, section 375 & 377 and their amendments • Indian Evidence Act – section 32, 45, 46,47, 60,73,138 • Criminal Procedure Code – section 291, 291A, 292 • Acts pertaining to socio –economic and environmental Crimes – Dowry Prohibition Act, POSCO Act, Wild-life protection Act, IT Act, NDPS Act.	**15**

FORENSIC SCIENCE

(DIPLOMA COURSE)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Diploma course
Syllabus of diploma as per NEP-2020
Faculty of Science
Effective from June 2025
Subject: Forensic Science

Course Level	Exit Course- 2		**Internal Marks**	50
Programme	Diploma Course		**External Marks**	50
Category of Course	Diploma in Forensic Science		**Practical Internal**	-
Course Credit	4		**Practical External**	-
Teaching Hours	60		**Total**	100
Course Code			**Exam Duration**	2 Hours
Course Title	Diploma in Forensic Science			

Course Outcome: Upon successful completion of this module, learners will be able to:

- Understand the Forensic Importance of Glass Evidence.
- Explain the significance of glass analysis in forensic investigations.
- Identify and interpret various types of glass fractures and their relevance in crime scene reconstruction.
- Analyse Soil and Fibre Evidence.
- Demonstrate the ability to collect, preserve, and examine soil and fibre samples.
- Establish connections between suspects, objects, and crime scenes using trace evidence.
- Interpret Paint and Tool Mark Evidence.
- Understand the forensic value of paint layers and tool marks.
- Use comparison techniques to match paint samples or tool impressions to specific sources.
- Utilize Photography in Crime Scene Documentation.
- Apply knowledge of digital cameras and lens types for accurate crime scene photography.
- Document and reconstruct crime scenes using photographic and video evidence for investigative and legal purposes.

Course Contents:

1	**Glass:** (In forensic Science glass analysis is important because that helps investigator link suspects, victims and crime scene through broken glass evidence specially in accident case, firing case)	Comparison of identity of small glass pieces by flotation methods.
		Determination of refractive index of glass and liquid.
		Comparison of broken glass bangles.
		Physical matching of broken pieces of different objects.

2	**Soil & Fibre:** (Soil and fibre analysis helps in connecting a people, objects and location providing supportive evidence in forensic investigation.)	Density gradient analysis of soil samples.
		Comparison of strings/threads/ropes.
3	**Paint & Tool Marks:** (Paint and Tool mark analysis provide physical evidence that can connect suspect to crime, object or vehicle, often playing a key role in investigation involving burglary, vandalism or accident)	Comparison of tool marks.
		Physical analysis of paint samples.
4	**Camera:** (In digital word, photography is most important during the crime scene analysis because photography & videography is used as a crime scene reconstruction, for our future references. For best crime scene photography knowledge of different types of camera and its lens is important)	Study the different types of cameras.
		Study the different types of lens used in camera.

BOTANY
(CERTIFICATE COURSE)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Science
Subject: Botany
Effective from June 2025

Programme	**U. G.**		**Internal Marks**	**50**
Course Type	**Vocational Exit Course for the award of UG Certificate in Botany**		**External Marks**	**50**
Course Credit	**4 Credits**		**Practical Internal**	**-**
Teaching Hours	**60 hrs**		**Practical External**	**-**
Course Title	**Environmental Awareness and Applied Botany**		**Total**	**100**
			Exam Duration	**2 hrs**

PURPOSE OF COURSE:
In line with the National Education Policy- 2020 and its provision for a multi-exit system, this course is designed for students who wish to exit the Botany Program after the successful completion of the first year (Semester-I and II) with Botany as their major.

COURSE OBJECTIVES:

- To introduce students to the basic concepts of environment, ecosystem, and natural resources.
- To create awareness about different types of pollution and their effects on plants and human health.
- To familiarize students with the practical uses of plants in food, medicine, and environmental protection.
- To promote sustainable practices such as gardening, plantation, and conservation of local flora.
- To encourage responsible citizenship through understanding the role of plants in daily life and environmental well-being.

COURSE OUTCOMES:
After completing the course, students will be able to:

- Explain the basic structure and function of ecosystems and the importance of environmental balance.
- Identify common pollutants and describe their impacts on plants and human life.
- Recognize useful plants in their surroundings and describe their everyday applications.
- Practice simple conservation techniques such as tree planting and water saving.
- Demonstrate awareness of their role in promoting sustainable and eco-friendly lifestyles in the community.

Teaching Methodology: Classwork, Discussion, Self-Study, Projects, Seminars and/or Assignment
Evaluation Methods: As per SOP for Exit Courses approved by university

COURSE CONTENTS

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Science
Subject: Botany
Effective from June 2025

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**Introduction to Environment and Ecosystems** 1.1 Meaning and importance of environment 1.2 Components of the ecosystem – biotic and abiotic 1.3 Types of ecosystems – forest, pond, desert 1.4 Importance of plants in ecosystem balance	**15**
2	**Environmental Pollution** 2.1 Types of pollution – air, water, and soil 2.2 Common sources of pollution 2.3 Effects of pollution on plants and human health 2.4 Simple methods to reduce pollution (plantation, waste management)	**15**
3	**Applied Botany in Daily Life** 3.1 Uses of plants in food, medicine, and clothing 3.2 Introduction to medicinal plants (e.g., Tulsi, Neem, Aloe vera) 3.3 Home gardening and kitchen gardening basics 3.4 Importance of trees in climate regulation	**15**
4	**Conservation and Sustainable Practices** 4.1 What is conservation? Need for protecting plants 4.2 Traditional practices in plant conservation (sacred groves, folk uses) 4.3 Save water, save trees – simple lifestyle practices 4.4 Role of students and community in protecting environment	**15**

REFERENCE BOOKS:

1. Singh, H. R. (2009). Environmental Biology. S. Chand & Company Ltd., New Delhi.
2. Sharma, P. D. (2018). Environmental Botany and Plant Pathology. Rastogi Publications, Meerut.

BOTANY
(DIPLOMA COURSE)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Science
Subject: Botany
Effective from June 2025

Programme	**U. G.**		**Internal Marks**	**50**
Course Type	**Vocational Exit Course for the award of UG Diploma in Botany**		**External Marks**	**50**
Course Credit	**4 Credits**		**Practical Internal**	**-**
Teaching Hours	**60 hrs**		**Practical External**	**-**
Course Title	**Biodiversity and Environmental Issues**		**Total**	**100**
			Exam Duration	**2 hrs**

PURPOSE OF COURSE:
In line with the National Education Policy- 2020 and its provision for a multi-exit system, this course is designed for students who wish to exit the Botany Program after the successful completion of the first year (Semester-III and IV) with Botany as their major.

COURSE OBJECTIVES:
- To introduce students to the concept and importance of biodiversity at genetic, species, and ecosystem levels.
- To raise awareness about biodiversity hotspots and their global and national significance.
- To enable understanding of the causes and consequences of biodiversity depletion and forest loss.
- To familiarize students with key ecological theories such as phytogeography, endemism, and continental drift.
- To build foundational knowledge of global environmental issues and their ecological implications.

COURSE OUTCOMES:
After completing the course, students will be able to:
- Define and explain the various levels and values of biodiversity.
- Identify causes and effects of deforestation and assess the role of forest conservation practices like social forestry.
- Interpret phytogeographical patterns and explain concepts like plant endemism and continental drift.
- Analyze the causes and consequences of global environmental threats such as acid rain, ozone depletion, and greenhouse effect.
- Demonstrate basic ecological awareness and apply knowledge to environmental protection and conservation efforts.

Teaching Methodology: Classwork, Discussion, Self-Study, Projects, Seminars and/or Assignment
Evaluation Methods: As per SOP for Exit Courses approved by university

COURSE CONTENTS

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Science
Subject: Botany
Effective from June 2025

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**Biodiversity- I** 1.1 Concept of Biodiversity 1.2 Levels of Biodiversity 1.3 Value of Biodiversity 1.4 Hotspot of Biodiversity	**15**
2	**Biodiversity- II** 2.1 Depletion of Biodiversity 2.2 Importance of Forest 2.3 Deforestation and causes of it 2.4 Social Forestry	**15**
3	**Phytogeography** 3.1 Age and Ara Hypothesis 3.2 Discontinuous distribution of plants 3.3 Endemism 3.4 Continental drift	**15**
4	**Global Environmental Issues** 4.1 Acid rain 4.2 Green house effect 4.3 Depletion of Ozone layer 4.4 Desertification	**15**

REFERENCE BOOKS:

1. Singh, H. R. (2009). Environmental Biology. S. Chand & Company Ltd., New Delhi.
2. Sharma, P. D. (2018). Environmental Botany and Plant Pathology. Rastogi Publications, Meerut.

MICROBIOLOGY

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Life Sciences
Subject: B. Sc. Microbiology
Effective from June 2025

Programme	**U.G.**		**Internal Marks**	**50**
Course Type	**Vacation Exit Course**		**External Marks**	**50**
Course Credit	**4**		**Practical Internal**	**-**
Teaching Hours	**60**		**Practical External**	**-**
Course Title	**Microbial Classification and Environmental Microbiology**		**Total**	**100**
			Exam Duration	**2 hrs**

COURSE OBJECTIVE:

- To understand the classification and significance of microorganism.
- To study the concept of environmental microbiology and microbial ecology
- To understand the different environmental habitat and survival mechanisms of microbes.

COURSE OUTCOME:

- Have acquired a good understanding of the diversity and taxonomy of the microorganism.
- Have acquired a good understanding of the structure and other salient characteristics of prokaryote, and eukaryotes.
- Have developed a fairly good knowledge and understanding of different types of environments and habitats where microorganisms grow, including the microbiomes of the human gut and animal gut.
- Can identify the important role microorganisms play in maintaining a healthy environment.

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**Prokaryotic Diversity** • Introduction to Archaea and Eubacteria • Gram negative bacteria – General features of: Aerobic/Microaerophilic motile, helical vibriod Non-motile curved bacteria Aerobic/Microaerophilic rods and cocci Facultative anaerobes – rods, curved and helical bacteria Dissimilatory Sulfate reducers, Anaerobic cocci, Phototrophic bacteria • Gram positive bacteria – General features of: Endospore forming rods and cocci Asporogenous rods, Mycobacteria and Actinomycetes • Extremophilic Microorganisms	**15**
2	**Eukaryotic Diversity** FUNGI: • General characteristics: Definition, occurrence, Structure, Reproduction	**15**

	• Classification and introduction to major divisions of Fungi • Economic importance of fungi ALGAE: • General Characteristics: Definition, Occurrence, Ultra- Structure, Reproduction • Economic importance of Algae PROTOZOA: • General Characteristics: Definition, Occurrence, Ultra- Structure, Reproduction • Economic importance of Protozoa	
3	**Microbes in Environment** • Terrestrial Environment: Soil profile and soil microflora. Aquatic Environment: Microflora of fresh water and marine habitats. • Atmosphere: Mendelian Laws of inheritance Aero microflora and dispersal of microbes. • Animal Environment: Microbes in/on human body (microbiomics) & animal (ruminants) body. • Extreme Habitats: Extremophiles: Microbes thriving at high& low temperatures, pH, highly drostatic & osmotic pressures, salinity, & low nutrient levels.	**15**
4	**Microbial Treatments and Technique** ● Principles and degradation of common pesticides, organic (hydrocarbons, oil spills) and inroganic (metals) matter, biosurfactants. ● Treatment and safety of drinking (potable) water, methods to detect potability of water samples: (a) Standard qualitative procedure: presumptive test/MPN test, confirmed and completed tests for faecal coliforms (b) Membrane filter technique (c) Presence/absence tests.	**15**

REFERENCE BOOKS:

1. Prescott, Healey and Klein., Microbiology-5th International Edition, Tata-McGraw Hill publications, Delhi
2. Atlas. R.M., Principles of Microbiology- 2nd Edition
3. Tortora, Funke & Case. Microbiology-An Introduction, 8 Edition, Pearson Education
4. Modi, H.A. Elementary Microbiology - Vol -I, Akta Prakashan, Nadiyad
5. Pelczar, M.J., Chan E.C.S., Krieg, N.R., Microbiology, 5 Edition. Tata McGraw Hill Publication Co. Ltd.
6. Stainer, R.Y., Iingraham, J.L., Wheelis, M.L., Painter, R.K. General Microbiology, 5th Edition. MacMillan Press Ltd., London

7. Dubey, R.C.and Maheshwari, D.K., A Text Book of Microbiology, S. Chand Publications, New Delhi.
8. Medigan, M.T., Martinko, J. M. and Parker, J. Brock Biology of Microorganisms. Pearson Education Inc., New York
9. Alexander, M John. Microbial ecology. Wiley & Sons, Inc., New York.

ZOOLOGY

(Certificate Course)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Science
Subject: Zoology
Effective from June 2025

Programme	**U. G.**		**Internal Marks**	50
Course Type	**Vocational Exit Course for the award of UG Certificate in Zoology**		**External Marks**	50
Course Credit	**4 Credits**		**Practical Internal**	-
Teaching Hours	**60 hrs**		**Practical External**	-
Course Title	**Non-chordate, chordates and fisheries biology**		**Total**	100
			Exam Duration	2 hrs

PURPOSE OF COURSE:

- In line with the National Education Policy- 2020 and its provision for a multi-exit system, this course is designed for students who wish to exit the Zoology Program after the successful completion of the first year (Semester-I and II) with Zoology as their major.

COURSE OBJECTIVE:

- To enable students to classify and differentiate major invertebrate phyla and understand the life cycles and ecological significance of selected parasitic forms.
- To provide students with a detailed understanding of the diversity and economic importance of invertebrate phyla, including their unique larval forms and evolutionary affinities.
- To familiarize students with the diverse adaptations and unique biological aspects of various vertebrate classes, highlighting their evolutionary strategies for survival in different environments.
- To introduce students to the fundamental principles and practical applications of aquaculture, including fish nutrition, breeding techniques, disease management, and post-harvesting methods.

COURSE OUTCOME: After completing the course, students will be able to:

- Classify major invertebrate phyla and describe the life cycles and pathogenicity of key parasitic forms.
- Explain the evolutionary significance of *Peripatus*, the economic importance of molluscs, identify echinoderm larval forms, and analyse the evolutionary affinities of *Balanoglossus*.
- Explain the diverse adaptations and unique biological aspects of various vertebrate classes, including osmoregulation, parental care, specialized morphological features, flight adaptation, migration, and the peculiarities of specific examples like *Sphenodon* and aquatic mammals.
- Comprehend the fundamental principles of aquaculture, encompassing culture practices for diverse species, induced breeding techniques, fish nutrition, common fish diseases, fish by-products, and post-harvesting methods.

TEACHING METHODOLOGY: Classwork, Discussion, Self-Study, Projects, Seminars and/or Assignment

EVALUATION METHODS: As per SOP for Exit Courses approved by university

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**Non-Chordates-II** 1.1 General characteristic and classification of Platyhelminthes, Nematoda, Annelida and Arthropoda up to class 1.2 Life cycle and pathogenicity of *Ascaris lumbricoides* and *Wuchereria bancrofti* 1.3 Peripatus: the connecting link between Annelida and Arthropoda	**15**
2	**Non-chordates-III** 2.1 General characteristic and classification of Mollusca, Echinodermata and Hemichordata up to class 2.2 Economic importance of Mollusca 2.3 Affinities of Balanoglossus	**15**
3	**Chordata: General Account** 3.1 Pisces: Osmoregulation and Parental care in fishes 3.2 Amphibia: Parental care in Amphibia 3.3 Reptilia: Sphenodon - a living fossil 3.4 Aves: Types of beaks and claws, flight adaptation and migration 3.5 Mammalia: Peculiarities and affinities of Marsupialia, Adaptations in Aquatic Mammals	**15**
4	**Fisheries Biology** 4.1 Basics of aquaculture, definition and scope. 4.2 Culture practices: Indian major carps; Shrimps and prawns. 4.3 Induced Breeding 4.4 Nutrition in fish: Nutrition, Feed formulation, Feed additives, Alternative feed ingredients. 4.5 Fish Diseases (Dropsy, Fungus infection, Gill rot, White spot, Costiasis, Argulus diseases) 4.6 Fish By product 4.7 Post harvesting Techniques in fisheries	**15**

REFERENCE BOOKS:

1. Invertebrate Zoology……..…E. L. Jordan & Dr. P. S. Verma
2. A modern textbook of Zoology Invertebrate Zoology……...…….R. L. Kotpal
3. Modern textbook of Zoology Vertebrates……...…….…….R. L. Kotpal
4. Chordate Zoology……..….E. L. Jordan & Dr. P. S. Verma
5. Chordate zoology……...…… P.S. Dhami & J.K. Dhami
6. Fish & Fisheries of India……V.G.Jhingram
7. Aquaculture – Principles and Practices……Pillay, T.,V., R., Kutty, M., N. 2nd Edn.
8. Fishes an introduction to Ichthyology……Paper and Moyle

ZOOLOGY

(Exit Course for Diploma)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Science
Subject: Zoology
Effective from June 2025

Programme	**U. G.**		**Internal Marks**	50
Course Type	**Vocational Exit Course for the award of UG Diploma in Zoology**		**External Marks**	50
Course Credit	**4 Credits**		**Practical Internal**	-
Teaching Hours	**60 hrs**		**Practical External**	-
Course Title	**Chordates, physiology and environment science**		**Total**	100
			Exam Duration	2 hrs

PURPOSE OF COURSE:

- In line with the National Education Policy- 2020 and its provision for a multi-exit system, this course is designed for students who wish to exit the Zoology Program after the successful completion of the second year (Semester-III and IV) with Zoology as their major.

COURSE OBJECTIVE:

- To understand the evolutionary adaptations observed in chordates, highlighting key features in fish, amphibians, aves, and mammals
- To learn the fundamental physiological processes of blood coagulation and respiration in vertebrates
- Provide students with a comprehensive understanding of Earth's natural resources, environmental pollution, and sustainable solutions.
- Students will learn about various pollutants, their sources, impacts, and mitigation strategies, as well as the importance of sustainable resource management.

COURSE OUTCOME: After completing the course, students will be able to:

- Describe the unique evolutionary adaptations present in different chordate groups.
- Explain the physiological mechanisms of blood coagulation and respiration.
- Categorize different natural resources, explain the problems associated with their unsustainable use, and analyze relevant case studies of resource depletion and conservation.
- Identify and describe different forms of environmental pollution and their impacts on human health and ecosystems, as well as critically discuss key global environmental issues

TEACHING METHODOLOGY: Classwork, Discussion, Self-Study, Projects, Seminars and/or Assignment

EVALUATION METHODS: As per SOP for Exit Courses approved by university

BHAKTA KAVI NARSINH MEHTA UNIVERSITY
Exit Course as per NEP-2020
Faculty of Science
Subject: Zoology
Effective from June 2025

COURSE CONTENTS

Unit No.	Title of the Unit and the Topics	Teaching Hours
1	**Evolutionary Adaptations in Chordata** 1.1 Fish: Air bladder in fishes, Types of Caudal fins. 1.2 Amphibia: Neoteny 1.3 Aves: Feathers 1.4 Mammals: Egg lying mammals	**15**
2	**Physiology** 2.1 Physiology of blood coagulation, Diseases related to circulatory system: Atherosclerosis, Coronary Artery Disease, Congenital Defects, Arrhythmias, Heart Block 2.2 Physiology of respiration: Exchange of Gases, Transport of Gases	**15**
3	**Natural Resources** 3.1 Introduction and Earth's resources. 3.2 Renewable and non-renewable resources. 3.3 Natural resources and associated problems and case studies: Forest resources, Water resources, Mineral resources, Land resources.	**15**
4	**Environmental Pollution** 4.1 Definition, Types, classification of pollution and its effects on humans (Air, water, soil pollution). 4.2 Major anthropogenic global environmental problems and case studies: (a) Acid rain ; (b) Green-house effect; (c) Ozone depletion; (d) Global Warming and Climate Change	**15**

REFERENCE BOOKS:

1. Modern textbook of Zoology Vertebrates……..…….…….R. L. Kotpal
2. Chordate Zoology……..….E. L. Jordan & Dr. P. S. Verma
3. Principles of Anatomy and Physiology…….Gerard J. Tortora, Bryan H. Derrickson – Wiley
4. Human Physiology…….Dee Unglaub Silverthorn – Pearson
5. Textbook for Environmental studies……..Erach Bharucha, UGC, New Delhi
6. The Biodiversity of India……..Bharucha Erach, Mapin Publishing Pvt. Ltd., Ahmedabad
7. Handbook of Environmental Laws, Rules Guidelines, Compliances and Standards, Vol I and II ……Trivedi R.K., Enviro Media (R)
8. Introduction to air pollution…….Trivedi R. K. and P.K. Goel, Techno-Science Publication.