



॥ न हि ज्ञानेन सद्गुणं पवित्रमिह विद्यते ॥

**Shri Chhatrapati Shivaji Shikshan Prasarak Mandal's**  
**SHIVAJI ARTS, COMMERCE AND SCIENCE COLLEGE,**  
**KANNAD-431103, DIST.AURANGABAD(M.S.).**

**NAAC Re-Accredited 'B++' Grade with CGPA (2.92)**  
Tq. Kannad, Dist: Aurangabad. Ph : 02435-220597, 220206, Fax : 02435-220597  
E-mail: shivajicollegeknd@yahoo.co.in Web-site: www.shivajicollegekannad.org



## INTERNAL QUALITY ASSURANCE CELL

Programme Outcomes (Pos), Programme Specific Outcomes (PSOs) and Course Outcomes (COs)

### INDEX

<b>Sr. No.</b>	<b>Subject</b>	<b>Page No.</b>
01	Marathi	03
02	Hindi	05
03	English	14
04	Economics	19
05	History	23
06	Psychology	26
07	Sociology	29
08	Political Science	32
09	Public Administration	36
10	Commerce	41
11	Physics	49
12	Chemistry	53
13	Mathematics	61
14	Botany	67
15	Zoology	78

## DEPARTMENT OF MARATHI

### COURSE OUTCOMES

Sr. No.	Course	Course Outcomes
1	F. Y. B. A./ B. Com/ B. Sc. General Introduction Marathi	१. साहित्य अभ्यासातून जीवनविषयक समज विकसित करणे. २. मराठी साहित्यातील भिन्न-भिन्न प्रवाह आणि प्रकार लक्षात घेणे ३. जागतिकीकरणात विविध क्षेत्रांना सामोरे जाण्यासाठी भाषिक क्षमता विकसित करणे. ४. व्यक्तिमत्त्व विकासात भाषेचे महत्त्व स्पष्ट करणे. ५. विद्यार्थ्यांचे भाषिक आकलन समृद्ध करणे.
2	S. Y. B. A./B. Sc. (S. L.)	१. लेखक, कवींचे व्यक्तिमत्त्व व त्यांच्या साहित्यातील आशय अभिव्यक्तीचा परिचय करून देणे. २. समाजाकडे डोळसपणे पाहता येण्याची क्षमता विकसित करणे. ३. विविध प्रसार माध्यमांची ओळख करून देणे ४. माहिती तंत्रज्ञानाचा परिचय करून देणे. ५. जीवनमूल्यांचा परिचय करून देणे. ६. वाचन संस्कृती वृद्धिंगत करण्यासाठी विविध ग्रंथांचा परिचय करून देणे.
3	S. Y. B. Com.	१. विद्यार्थ्यांना वाणिज्य व्यवसायात मराठी भाषेचे आकलन करून देणे. २. मराठी भाषेचा व्यावहारिक परिचय करून देणे ३. वाचन संस्कृतीच्या माध्यमातून व्यवसायाला पूरक व मूलभूत सहाय्य करणे. ४. व्यवसायाच्या माध्यमातून मराठी भाषेला स्थान मिळवून देणे.
4	T. Y. B. A.	१. साहित्याचे स्वरूप समजून घेणे २. साहित्याची प्रयोजने समजून घेणे ३. साहित्याची भाषा समजून घेणे. ४. साहित्य प्रकारांची संकल्पना समजून घेणे. ५. भाषेचे स्वरूप व कार्य, भाषेच्या अभ्यासाचे महत्त्व जाणून घेणे. ६. वाङ्मयाचा इतिहास समजून घेणे.

		७. विविध वाङ्मयीन प्रवाहांचा परिचय करून देणे.
5`	M. A. Marathi F. Y./S. Y.	<p>१. आधुनिक मराठी वाङ्मयाच्या इतिहासाची ओळख करून देणे</p> <p>२. साहित्य समीक्षेचा परिचय करून देणे.</p> <p>३. वाङ्मय प्रकार : संकल्पना व स्वरून समजावून सांगणे.</p> <p>४. एका लेखकाच्या अभ्यास पद्धतीची ओळख करून देणे.</p> <p>५. वाङ्मयीन इतिहासाविषयी आवड निर्माण करणे.</p> <p>६. साहित्य समीक्षेच्या विविध पद्धतींचा परिचय करून देणे.</p> <p>७. लोकसाहित्याच्या संकल्पना, स्वरूप व विशेषांची ओळख करून देणे</p> <p>८. मराठवाड्यातील आधुनिक साहित्याचा परिचय करून देणे. निवडक साहित्यकृतीचा अभ्यास करणे</p> <p>९. मराठी व्याकरण व वैचारिक साहित्याची ओळख करून देणे.</p>



## DEPARTMENT OF HINDI

### हिंदी विभाग

#### प्रोग्राम आउटकम

हिंदी विभाग बी. ए. ऐच्छिक और द्वितीय भाषा हिंदी यह दो प्रोग्राम छात्रों के लिए उपलब्ध कराता है। भाषा और साहित्य के अध्ययन के माध्यम से छात्रों की समझ विकसित करना, उनके व्यक्तित्व का विकास करना, उन्हें साहित्य का महत्व समझाना, उनमें साहित्य की संवेदना विकसित कर संवेदनशील समाज की निर्मिती करना, छात्रों में संवाद कौशल की वृद्धि करना, मौखिकी परीक्षा के लिए उन्हें योग्य बनाना, उनमें विश्लेषण क्षमता का विकास करना और उन्हें लेखन कौशल सिखाना हिंदी के इस प्रोग्राम का उद्देश है। हिंदी विषय का प्रोग्राम आउटकम इस तरह।

PO 1: साहित्य की समझ और मानवी संवेदनाएँ निर्माण करना।

PO 2: छात्रों में भाषिक कौशल का विकास करना, जिस से छात्र आवश्यक संवाद कौशल सिख सकें।

PO 3: छात्रों में विश्लेषण क्षमता का विकास करना इस पाठ्यक्रम का उद्देश है। इस से छात्रों को उनके भविष्य में किसी विषय का विश्लेषण विवेचन करने की योग्यता प्राप्त होती है।

PO 4: साहित्यिक अभिरुचि निर्माण करना जिससे मानवी जीवन में आनंद की अनुभूति होने और सहृदय को आनंद देने का कौशल अर्थात् साहित्य कला निर्माण का गुण विकसित हों।

PO 5: अनुसन्धान में रुचि, शब्द संपदा, भाषिक संपदा का संवर्धन और विकास यह गुण छात्र में निर्माण करना।

प्रोग्राम स्पेसीफिक आउट कम इस तरह:

PSO 1: अध्ययन पूरा करने के बाद छात्रों में साहित्य की अच्छी समझ विकसित होगी और उसमें मानवी संवेदनाएँ विकसित होगी। साहित्य की समझ और संवेदनाओं के विकास से एक संवेदनशील समाज विकसित होगा।

PSO 2: पठन, श्रवण, लेखन और बोलना यह चार भाषिक कौशल विकसित होने के बाद छात्र में आत्मविश्वास निर्माण होता है। वह पत्राचार, अर्जी से लेकर विभिन्न व्यावहारिक लेखन करने में सक्षम हो जाता है, तथा मौखिकी परीक्षा में मौखिकि देने योग्य बन जाता है।

PSO 3: भाषिक और साहित्यिक अध्ययन से छात्रों में विश्लेषण एवं विवेचन क्षमता का विकास होता है। इस से छात्र अपनी आसपास की स्थितियों का विश्लेषण करना सिख जाते हैं

और इससे उस पर योग्य प्रतिक्रिया देने लायक बन जाते हैं।

PSO 4: साहित्यिक अभिरुचि का निर्माण इस पाठ्यक्रम के माध्यम से होता है। समाज में साहित्यिक अभिरुचि का निर्माण होना आवश्यक है। इस पाठ्यक्रम से यह संभव हो जाता है, साथ ही कुछ रचना करनेवाले छात्र भी निर्माण हो जाते हैं।

PSO 5: हिंदी का यह पाठ्यक्रम छात्रों में अनुसन्धान की रुचि निर्माण करता है। हिंदी शब्द संपदा का भाषिक संपदा का संवर्धन करना और उसमें वृद्धि करने का महत्व छात्रों को समझता है।

### कोर्स आउटकम

#### सामान्य हिंदी (SL I&II) (बी.ए., बी. कॉम., बी. एस्सी.)

CO1: छात्रों को हिंदी कहानी साहित्य का परिचय मिल जाता है।

CO2: साहित्यिक संवेदनाओं का विकास हो जाता है और इंसानीयत को बढ़ावा मिलता है।

CO3: हिंदी के प्रमुख लेखक और और उनकी लेखन विशेषताओं का परिचय प्राप्त होता है।

CO4: छात्रों के भाषा कौशल का विकास होता है।

CO5: छात्रों में हिंदी भाषा के महत्व के साथ व्याकरण से संबंधित सजगता निर्माण होती है।

#### सामान्य हिंदी (SL - III & IV) (बी.ए., बी. कॉम., बी. एस्सी.)

CO1: हिंदी निबंध और काव्य विधा के माध्यम से साहित्य आस्वादन अभिरुचि का परिसंस्कार करना।

CO2: जीवन मूल्यों के प्रति आस्था निर्माण करना।

CO3: हिंदी के आधुनिक गद्य साहित्य की प्रतिनिधिक रचनाओं का परिचय कराना।

CO4: वर्तमान कालीन इलेक्ट्रॉनिक माध्यमों का परिचय करना।

CO5: प्रयोजनमूलक तथा संप्रेषणमूलक हिंदी भाषा से छात्र परिचित हो और रोजमर्रा की जिंदगी में आवश्यक लेखन कला विकसित करना।

CO6: पत्रलेखन के सारे भेद, आवेदन पत्र, बैंकिंग तथा सरकारी कार्यालयों की प्रयोजनमूलक भाषा से छात्र परिचित होता है।

CO7: कहानी, कविता, संस्मरण, रेखाचित्र, डायरी, आत्मकथा, जीवनी, निबंध, यात्रावृत्त, व्यंग्य,

रिपोताज, पत्र आदि हिंदी साहित्य की विधाओं का परिचय भी विद्यार्थी कर चुके हैं। जीवन मूल्य, भाव-भावनाओं, संवेदनाओं के परिचय के साथ आधुनिक साधनों का भाषाई प्रयोग कैसे करें इसका परिचय भी छात्र पाते हैं।

CO8: रेडियो वार्ता लेखन, समाचार लेखन, मीडिया के विविध आयाम हिंदी भाषा की व्यावसायिक उपयोगिता, बैंकों में हिंदी, वैश्वीकरण के परिप्रेक्ष्य में हिंदी भाषा का महत्व, उद्योग व्यापार में हिंदी के सहारे कैसे आर्थिक प्रगति कर सकते हैं आदि बातों का परिचय करवाना।

## बी.ए. ऐच्छिक हिंदी

### प्रश्नपत्र 1) उपन्यास साहित्य

CO1: छात्रों की साहित्यिक अभिरुचि का विकास और साहित्य आस्वादन का आनंद देना।

CO2: मानवी जीवन मूल्यों का विकास और उनके प्रति आस्था निर्माण करना।

CO3: उपन्यास साहित्य की बारिकियों से परिचित कराना और हिंदी उपन्यास साहित्य की पहचान करना।

CO4: लेखन और भाषा कौशल का विकास करना।

### प्रश्नपत्र 2 नाटक साहित्य

CO1: हिंदी नाटक और उसके बहाने साहित्य में नाट्य परंपरा, हिंदी रंगमंच, अभिनय तथा व्यावसायिक नाटकों से परिचित कराना।

CO2: 'विजयपर्व' नाटक से अशोक की जिंदगी का संघर्ष, युवराज से राजगद्दी और फिर राजगद्दी से निर्वाण तक के सफर का प्रयास युद्ध से शांति भली है की स्थितियों को बयां करता है। अतः विद्यार्थियों पर संघर्ष, रक्तपात, लड़ाई से शांति भली है के संस्कार हो जाता है।

CO3: प्रेमचंद के होरी नाटक के अध्ययन के पश्चात् किसानों की दयनीयता, जमीन से जुड़ना, पारिवारिक संघर्ष आदि का परिचय मिला। विद्यार्थी भी पहले से किसान परिवारों से जुड़े हैं। अतः 'होरी' नाटक में चित्रित पात्र उन्होंने अपने घरों में बसे हैं ऐसा एहसास किया है। बिना पढाई के क्या होता है इसका परिचय भी पाया है। अतः शिक्षा से आत्मनिर्भर बनने

की प्रेरणा, सम्मान पाने की लालसा विद्यार्थियों में जगती है।

CO4: अलख आजादी की नाटक भारतीय स्वतंत्रता का लेखा-जोखा प्रस्तुत करता है। आज जिस देश में हम रह रहे हैं, वह कहां से कहां तक का सफर कर चुका है. इससे छात्र परिचित हो गए हैं। घर-गांव और देश के प्रति देशभक्ति के भाव विद्यार्थियों में जगाने का काम इस नाटक से होता है।

CO5: नाटक साहित्य पेपर के अध्ययन के बाद विद्यार्थियों में हिंदी नाटक साहित्य की बारिकियों को पहचानने की क्षमता का विकास, संवेदनाओं का विकास, नाट्य आस्वादन और नाटकों की आलोचना करने की दृष्टि का विकास हो गया है।

### **प्रश्नपत्र 3 हिंदी गद्य साहित्य**

CO1: हिंदी कहानी और व्यंग्य साहित्य का अध्ययन करना।

CO2: इंसानी जीवन मूल्यों और संवेदनाओं का विकास और उनके प्रति आस्था निर्माण करना।

CO3: साहित्य आस्वादन और मूल्यांकन क्षमता का विकास करना।

CO4: हिंदी साहित्य की गद्य विधाओं का परिचय करवाना।

### **प्रश्नपत्र 4 एकांकी साहित्य -**

CO1: हिंदी एकांकी के उद्भव और विकास से विद्यार्थी परिचित होता है।

CO2: हिंदी एकांकी नाटक की तुलना में छोटी विधा है। प्रथम सत्र में नाटकों का अध्ययन और द्वितीय सत्र में एकांकी का अध्ययन है। इससे विद्यार्थियों को नाटक और एकांकी के बिच का फर्क समझ में आता है।

CO3: एकांकी के माध्यम से मानवीय संवेदनाओं का अध्ययन हो गया और जीवन में मानवीय मूल्यों से विद्यार्थी परिचित हो गए। छोटी-छोटी घटनाओं का जीवन में क्या महत्व है, इसका परिचय भी छात्रों को हो गया है।

CO4: एकांकी नए पुराने किताब के भीतर पांच प्रातिनिधिक एकांकियों को पढ़ाई के लिए रखा है,

जिससे ऐतिहासिक, सामाजिक और समस्यामूलक एकांकी कैसे होती है. इसका ज्ञान छात्रों को होता है।

CO5: प्रतिनिधिक महिला एकांकी हिंदी महिला एकांकीकारों की एकांकियों का प्रतिनिधित्व करती है। महिलाओं के अनुभव जगत को बयान करता यह एकांकी संग्रह महिलाओं की मुश्किलों और पीडाओं को छात्रों के सामने रखता है। अर्थात इससे विद्यार्थी अपने घर परिवार में रह रही महिलाओं के मुश्किलों से परिचित हो गए हैं।

#### **प्रश्नपत्र 5: कथेतर गद्य साहित्य -**

CO1: कथेतर गद्य साहित्य पेपर रखने का उद्देश्य यही है कि हिंदी के विद्यार्थी हिंदी साहित्य के कथेतर विधाओं से परिचित हों।

CO2 गद्य गौरव' और 'गद्य प्रभा' किताब के माध्यम से विद्यार्थी रेखाचित्र, निबंध, संस्मरण, जीवनीपरख लेख, व्यंग्य, आत्मकथा अंश, यात्रा वृतांत, लेख आदि विधाओं से भलीभांति परिचित हो।

CO3: साहित्य के विविध विधाओं के आस्वादन और आनंद लेने की आदत और अभिरुचि विकास भी छात्र में कराना।

CO4: हिंदी कथेतर गद्य संवेदना की परंपरा का परिचय करना।

CO5: जीवन मूल्यों के प्रति आस्था पैदा करना

#### **प्रश्नपत्र 6: प्रयोजनमूलक हिंदी**

Co1: हिंदी भाषा के प्रयोजनमूलक रूप का परिचय कराना।

CO2: हिंदी भाषा की व्यावहारिकता पर प्रकाश डालना।

CO3: भारत देश की राष्ट्रभाषा होने के नाते हिंदी भाषा के महत्व का मूल्यांकन करना।

CO4: हिंदी के राष्ट्रीय और अंतर्राष्ट्रीय स्वरूप का मूल्यांकन करना।

CO5: आधुनिक तंत्र विज्ञान में हिंदी की उपयोगिता पर आकलन करना।

#### **प्रश्नपत्र 7: आधुनिक हिंदी कविता**

CO1: हिंदी साहित्य के पद्य (कविता) के उद्भव और विकास पर प्रकाश डालना, हिंदी कविता के प्रति छात्रों की अभिरुचि की वृद्धि करना, मानवीय भाव-भावनाएं और संवेदनाओं का विकास करना इस पाठ्यक्रम का उद्देश्य है।

CO2: नागार्जुन द्वारा लिखित खंडकाव्य भूमिजा रामायण के कथा प्रसंग पर प्रकाश डालना है। सीता का ऐतिहासिक मूल्यांकन करते हुए एक नारी के नाते उसकी कौनसी शिकायतें राजा, पति, पुरुष और राज्य के प्रति रही है इसका यथार्थ मूल्यांकन करना। अर्थात् नारी जीवन के संघर्ष और विद्रोह का परिचय इस खंडकाव्य का उद्देश्य है।

CO3: छात्र रामायण, रामचरितमानस तथा अन्य रामायण कथा पर केंद्रित रचनाओं से एक अलग रचना से परिचित हो गए हैं, जिसमें सीता का एक स्त्री होने के नाते पुरुषों के प्रति विद्रोह है इसका परिचय करवाना।

CO4: कविता और खंडकाव्य के बीच का साहित्यिक पद्य रूप के नाते लंबी कविताओं को जाना जाता है। इन कविताओं के माध्यम से छात्र विविध भाव, रस से परिचित हो गए हैं। साथ ही आधुनिक जीवन की परेशानियों, मोहभंग, बाजारीकरण, अर्थसत्ता का ताकतवर होना, शब्दों का महत्व आदि बातों का परिचय करवाना।

#### **प्रश्नपत्र 8- प्रयोजनमूलक हिंदी 2 -**

CO1: हिंदी भाषा के विविध रूपों का परिचय कराना।

CO2: राजभाषा हिंदी के विविध रूपों का परिचय कराना।

CO3: प्रयोजनमूलक भाषा तथा अनुवाद की भूमिका का परिचय कराना।

CO4: हिंदी भाषा के प्रयोजनमूलक और व्यावहारिक रूप का परिचय कराना।

COS: भारत देश की राष्ट्रभाषा होने के नाते हिंदी भाषा के महत्व का परिचय कराना।

CO6: हिंदी के राष्ट्रीय और अंतर्राष्ट्रीय स्वरूप का मूल्यांकन करना।

.CO7: आधुनिक तंत्र विज्ञान में हिंदी की उपयोगिता का आकलन करना ।

#### **प्रश्नपत्र 9 प्रादेशिक साहित्य -**



CO1: साहित्य आस्वादन और अभिरूचि का परिष्कार करना।

CO2: जीवन मूल्यों के प्रति आस्था निर्माण करना।

CO3: प्रादेशिक भाषा के साहित्य से परिचय करवाना।

CO4: भारतीय साहित्य का अध्ययन करना।

### **प्रश्नपत्र 10- आदि तथा मध्यकालीन हिंदी साहित्य का इतिहास**

CO1: हिंदी साहित्य के इतिहास तथा आरंभिक काल का परिचय करना।

CO2: हिंदी साहित्य के लेखन स्रोतों एवं परंपराओं पर प्रकाश डालना।

CO3: हिंदी साहित्य आदिकाल, भक्तिकाल और रीतिकाल का परिचय देना।

CO4: साहित्य आस्वादन और अभिरूचि का परिष्कार करना।

CO5: साहित्य के कालापरिवर्तनों की जानकारी प्राप्त करना।

### **प्रश्नपत्र 11 : साहित्यशास्त्र**

CO1: साहित्य चिंतन परंपरा का अध्ययन करना।

CO2: साहित्यालोचन क्षमता का परिचय करना।

CO3: साहित्य सृजन के संस्कार करना।

CO4: साहित्य एक प्रकार से शास्त्र है, उसका पढ़ना, चिंतन, आकलन, मूल्यांकन और सृजन करना एक प्रकार की शास्त्रीय तकनीक है। इसी तकनीक का विकास करना इस पाठ्यक्रम का उद्देश्य है।

CO5: साहित्य का स्वरूप, तत्त्व, प्रयोजन हेतु, शब्दशक्तियां, रस, अलंकार, छंद, विविध विधाओं का स्वरूप, आलोचना आदि अंगों का परिचय छात्रों को करवाना।

CO6: साहित्य और हिंदी भाषा के विद्यार्थी होने के नाते एक परिपूर्ण इंसान बनने और मानवीय

जीवन का आकलन, बोध और मूल्यांकन करने की क्षमता का विकास हो यह इस पाठ्यक्रम का उद्देश्य है, अर्थात् साहित्यशास्त्र इस पाठ्यक्रम की पढाई के बाद यह दृष्टि छात्रों में लाना।

CO7: साहित्य का मूल्यांकन करने की दृष्टि भी विकसित करना, साहित्य के कलापक्षीय अंगों पर प्रकाश डालने की दृष्टि का विकास करना।

### **प्रश्न पत्र 12 और 16: परियोजना कार्य**

CO1: पठन-पाठन और लेखन कौशलों का विकास करना।

CO2: आलोचनात्मक क्षमता का विकास करना।

CO3: अनुसंधात्मक दृष्टि का विकास करना।

CO4 : प्रकल्प प्रस्तुति का तकनीक से परिचित करना।

### **प्रश्नपत्र 13: मध्यकालीन काव्य**

CO1: भारतीय भक्ति आंदोलन का अध्ययन करना।

CO2: रीतिकालीन संवेदनाओं का अध्ययन करना।

CO3: कविताओं के माध्यम से मध्यकालीन सांस्कृतिक संवेदना का अध्ययन करना।

CO4: भक्ति तथा रीतिकालीन पृष्ठभूमि और प्रवृत्तियों से विद्यार्थियों को परिचित करना।

CO5: साहित्य का चिंतन, आकलन और मूल्यांकन करना एक प्रकार की शास्त्रीय तकनीक है। इसी तकनीक का विकास करना इस पाठ्यक्रम का उद्देश्य है।

### **प्रश्नपत्र 14 : आधुनिक हिंदी साहित्य का इतिहास**

CO1: हिंदी साहित्य के आधुनिक काल का परिचय करना।

CO2: हिंदी साहित्य के आधुनिक काल की पृष्ठभूमि और प्रवृत्तियों पर प्रकाश डालना।

CO3: हिंदी साहित्य के आधुनिक काल में कविता और गद्य लेखन के विविध प्रकारों का

## आकलन और मूल्यांकन

CO4: भारतीय स्वातंत्रता संग्राम में हिंदी साहित्यकारों ने कौनसी भूमिका निभाई और देशभक्ति से प्रेरित होकर कितना साहित्य लिखा इसका मूल्यांकन करना।

CO5: हिंदी साहित्य के सामाजिक और आधुनिक पहलुओं पर प्रकाश डालना।

## प्रश्नपत्र 15 साहित्यशास्त्र

CO1: साहित्य चिंतन परंपरा का अध्ययन करना।

CO2: साहित्यालोचन क्षमता का परिचय करना।

CO3: साहित्य सृजन के संस्कार करना।

CO4: साहित्य के रस, अलंकार, छंद, विविध विधाओं का स्वरूप, आलोचना आदि अंगों का परिचय विद्यार्थियों को करवाना।

CO5: साहित्य की विविध विधाओं से छात्रों को परिचित करवाकर उसका अध्ययन करना।

CO6: साहित्य का मूल्यांकन करने का दृष्टिकोण विकसित करना। साहित्य के कलापक्षीय अंगों पर प्रकाश डालने की दृष्टि का विकास करना।

CO7: विद्यार्थियों में साहित्यालोचन की दृष्टि को विकसित करना।

## प्रश्न पत्र 12 और 16: परियोजना कार्य

## DEPARTMENT OF ENGLISH

### Program Outcomes, Program Specific Outcomes and Course Outcomes

#### Programme Outcomes

- To make the students obtain language skills
- To make the students competent in grammar structures and Phonetics
- To acquire language and grammatical skills
- Introduction to various textual literary forms
- To develop usage of words, sentences and grammar practically
- To promote the students to use Modern English in daily life
- To introduce the students to appropriate literary strategies to read literature
- To develop research attitude
- To make students a cultured citizen, well teacher and skilled administrator.
- To assist students in the development of intellectual flexibility, creativity, and cultural literacy so that they may engage in life-long learning.
- To educate students in both the artistry and utility of the English language through the study of literature and other contemporary forms of culture.
- To provide students with the critical faculties necessary in an academic environment, on the job, and in an increasingly complex, interdependent world.

#### Programme Specific Outcomes

- To strengthen the communication skills
- To enable the students to read, write and speak correctly through literary content.
- To develop understanding about prose, poetry and grammar through sentence structures and literary genres
- To create awareness about the conventions of diverse literary genres
- To develop professional skills in communication and grammar
- Introduce students to multi-business skills, to inspire students for enterprise
- To understand literary background, Essay, epic, drama, and novel.
- To understand literary background, ballad, novel dramatic monologue, drama, romantic lit.,
- To study literary forms of literature like drama, novel, poetry with its socio-political, cultural and historical contexts.
- To make the students technically strong to analyse text.
- To study and analyse literary forms like drama, poetry and novel with its socio-political, cultural and historical contexts
- To develop writing skills, techniques and textual analysis

## **Course Outcomes**

### **F.Y. B. A.**

#### **Semester I & II**

##### **Paper I & II–English Compulsory**

Upon completion of the course, the students will be able to-

- CO1: Differentiate various types of genres
- CO2: Explain nature and structure of sonnet
- CO3: Identify parts of speech appearing in sentences
- CO4: Distinguish between open and close class items is clear to students
- CO5: Have a good knowledge of tenses

##### **Paper I & III– Optional English: The Structure of English**

Upon completion of the course, the students will be able to-

- CO1: Have thoroughly understood the Received Pronunciation
- CO2: Reproduce all forty-four speech sounds
- CO3: A sound knowledge of syllable, phone, intonation, tone group, etc
- CO4: Be well versed in sentence types, elements of clause structure, various phrases, etc
- CO5: Comprehend the process of word formation

##### **Paper II & IV– Optional English: Reading Literature**

Upon completion of the course, the students will be able to-

- CO1: Know poetical types especially lyric, sonnet and ode
- CO2: Read and interpret novel
- CO3: Have knowledge of drama, especially of tragedy and comedy
- CO4: Read and interpret Shakespearean sonnets
- CO5: Read and interpret Keats' odes

##### **Paper I & II– Additional English**

Upon completion of the course, the students will be able to-

- CO1: Distinguish between various genres of English Literature
- CO2: Understand author's purpose and tone
- CO3: Distinguish between main ideas from specific details depicted in literary pieces
- CO4: Expand and comprehend the text
- CO5: Improved their language skills

### **S.Y. B. A.**

#### **Semester III & IV**

##### **Paper III & IV–English Compulsory**

Upon completion of the course, the students will be able to-

- CO 1: Distinguish between spoken language and the written
- CO 2: Understand and acquire English language skills through creative writing
- CO 3: Use English language appropriately, creatively and imaginatively
- CO 4: Identify the main ideas and themes depicted in a text
- CO5: Have competence in various concepts in grammar and writing skills

### **Paper V & VII– Optional English: Literature in English 1550 - 1750**

Upon completion of the course, the students will be able to-

- CO1: Have developed and applied the literary knowledge
- CO2: Know the nature and structure of epic and mock epic
- CO3: Differentiate between various types of literary genres
- CO4: Distinguish between good and evil, moral & immoral depicted in literature
- CO5: Study literature critically

### **Paper VI & VIII– Optional English: Literature in English 1750 - 1900**

Upon completion of the course, the students will be able to-

- CO1: Have obtained sufficient knowledge of poetical types like ballad and dramatic monologue
- CO2: Understand the socio-economical and cultural situation of English society in the 19th century by reading the novel of Thomas Hardy
- CO3: Be acquainted with the dramatic techniques of Oscar Wilde by studying his play The Importance of Being Earnest
- CO4: Understand Coleridge's ballad The Rime of the Ancient Mariner
- CO5: Have the ability of reading and interpreting Robert Browning's dramatic monologue The Last Ride Together

### **Paper III & IV–Additional English**

Upon completion of the course, the students will be able to-

- CO1: Distinguish the difference between speech and writing
- CO2: Understand and acquire English language skills through creative writing
- CO3: Use English language appropriately, creatively and imaginatively
- CO4: Identify the main ideas and themes portrayed in a text
- CO5: Be proficient in various concepts in grammar and writing skills

## **T.Y. B. A.**

### **Semester V & VI**

#### **Paper IX & XIII– Optional English: Twentieth Century Literature in English**

Upon completion of the course, the students will be able to-

- CO1: Acquaint themselves with twentieth century literary and social background
- CO2: Understand all the strands of the play Pygmalion
- CO3: Know the features of prescribed poems by Eliot and Yeats
- CO4: Comprehend all the features of the novels Sons and Lovers and Lucky Jim
- CO5: Have a sound knowledge of the contemporary world as depicted in the play Look Back in Anger

#### **Paper X & XIV– Optional English: An Introduction to Literary Criticism & Terms**

Upon completion of the course, the students will be able to-

- CO1: Understand various forms of literature and the literary terms
- CO2: Know importance of literary criticism to understand literature
- CO3: Understand classicism in literature
- CO4: Come across perspectives of a critic while analysing and interpreting a text
- CO5: Apply criticism while understanding a text



### **Paper XI & XV– Optional English: Indian Writing in English**

Upon completion of the course, the students will be able to-

CO1: Acquainted them with the history of Indian English literature.

CO2: Distinguish between various genres of English literature.

CO3: Have a good knowledge of major authors and their literary contribution in Indian English Literature.

CO4: Understand characterization in literary pieces.

### **F.Y. B. Sc.**

#### **Semester I & II**

##### **Paper I &II– English Compulsory**

Upon completion of the course, the students will be able to-

CO 1: Recognize all characters from the prose

CO 2: Understand and classify various themes of poetry

CO 3: Understand figures of speech deployed in a literary piece

CO 4: Use various tenses in speech and writing

CO 5: Write précis.

##### **Paper I &II–Additional English**

Upon completion of the course, the students will be able to-

CO1: Distinguish between various genres of English literature

CO2: Understand author's purpose and tone

CO3: Come across main ideas reflected in a literary piece

CO4: Expand and comprehend the text

CO5: Improve their language skills.

CO6: They have improved their language skills

### **S.Y. B. Sc.**

#### **Semester III & IV**

##### **Paper III &IV– English Compulsory**

Upon completion of the course, the students will be able to-

CO1: Distinguish the difference between speech and writing

CO2: Understand language skills through creative writing

CO3: Use English language appropriately, creatively and imaginatively

CO4: Identify the main ideas and themes reflected in a text

CO5: Understand various concepts in grammar

##### **Paper III &IV– Additional English**

Upon completion of the course, the students will be able to-

CO1: Understand themes of the prescribed short stories

CO2: Write job application letter

CO3: Come across the structure of short story

CO4: Be familiar with the nature and structure of drama

CO5: Write situational conversation

## **F.Y. B. Com.**

### **Semester I & II**

#### **Paper I & II–Compulsory English**

Upon completion of the course, the students will be able to-

CO1: Understand the importance of English Grammar and its use

CO2: Use different kinds of sentences

CO3: Use speech sounds in speech and writing

CO4: Frame sentences in different tenses

CO5: Differentiate between varied parts of speech

#### **Paper I & II–Additional English**

Upon completion of the course, the students will be able to-

CO1: Distinguish between various genres of English literature

CO2: Understand author's purpose and tone

CO3: Read and understand a text critically

CO4: Improve their linguistic skills by studying literature

CO5: Know how figures of speech enhance the impact of literature

## **S.Y. B. Com.**

### **Semester III & IV**

#### **Paper III & IV–Compulsory English**

Upon completion of the course, the students will be able to-

CO1: Draft official letter

CO2: Prepare agenda and minutes of a meeting

CO3: Face interviews

CO4: Write a resume

CO5: Be proficient in report writing

#### **Paper III & IV–Additional English**

Upon completion of the course, the students will be able to-

CO1: Understand themes of short stories

CO2: Write job application letters

CO3: Understand the nature and structure of one-act play

CO4: Frame dialogues in speech and writing

CO5: Undertake situational conversation

## DEPARTMENT OF ECONOMICS

### Program Outcomes, Program Specific Outcomes and Course outcomes B.A. Economics

<b>Department of Economics</b>	<b>After successful completion of three-year degree program in economics a student should be able to</b>
<b>Programme Outcomes</b>	<ul style="list-style-type: none"> <li>• Understand basic concepts of Economics.</li> <li>• Awareness about economic activity</li> <li>• Solve economic issue with the help of statistical data.</li> <li>• Understand development process.</li> <li>• Ability to analyze current events from an economic perspective.</li> <li>• Ability to understand various social issues and economic problems.</li> </ul>
<b>Programme Specific Outcomes</b>	<ul style="list-style-type: none"> <li>• Get in-depth knowledge of fundamental economic theories.</li> <li>• Apply theories of economics to the real economic phenomena with statistical support.</li> <li>• Create awareness about sustainable development.</li> <li>• Implement research methodology in research design, data analysis, planning and interpretation.</li> <li>• It can help to improve living standards and make society a better place.</li> </ul>

<b>Course</b>	<b>COURSE OUTCOMES: B. A. ECONOMICS</b>
	<b>Outcomes After completion of these course students should be able to</b>
<b>B.A.I Year Paper ECO 101 Micro economics</b>	On the completion of this course the students will be able to understand the meaning and scope of micro economics, the behavior of a consumer, a producer, and price fluctuation in the market. Students will be able to understand various

	components regarding price determination under various types of markets, theory of production, cost and revenue analysis.
<b>B.A.I Year Paper ECO 102 Indian Economy</b>	Students will be able to understand structure of Indian economy, human resource development, poverty and unemployment and planning in India.
<b>B.A.I Year Paper ECO 103 Price theory</b>	On the completion of this course the students would be able to understand price determination under various types of markets, students will be able to know about the theory of production, cost and revenue analysis, forms of market, factor pricing theories.
<b>B.A.I Year Paper ECO 104 Money banking and finance</b>	On completion of the course students will be able to understand the monetary and banking system in India and also understand the function of Reserve Bank of India and importance of monetary policy of India.
<b>B.A.II Year Paper ECO 105 Macro economics</b>	On completion of the course students will be aware of the basic theoretical framework underlying the field of macroeconomics. Students will understand the concepts of national income, theory of money, theory of trade cycles, theory of output and employment.
<b>B.A.II Year Paper ECO 106 Economics of development</b>	On completion of the course students would be able to understand the theories of development and factor responsible for development and underdevelopment.
<b>B.A.II Year Paper ECO 107 Public finance</b>	On completion of the course students would be able to understand the detailed information of fiscal policy, public revenue, public expenditure, public debt, union Budget. Students will be able to understand benefits and distribution of various types of taxes among various classes of people.
<b>B.A.II Year Paper ECO 108 Statistical Methods</b>	On completion of this course students would be able to use techniques of statistical analysis which are commonly applied to economic problems. Students would be able to understand role of index number in economy. The students will get

	enabled regarding the rules for calculating the mean, medium, mode, standard deviation and correlation.
<b>B.A.III Year Paper ECO 109 International economics</b>	After completion of the course students can analyze the theories of international trade, understand gains from trade, tariffs and quotas, balance of payment.
<b>B.A.III Year Paper ECO 110 Agricultural economics</b>	On completion of this course students would be able to understand the issue in agricultural economics, technology in agriculture, agricultural price policy, food security in India. Students will be enabled to analyze the progress of agriculture and changing nature of agriculture cropping pattern and contribution of agriculture in economy.
<b>B.A.III Year Paper ECO 111 History of economic thought</b>	On completion of this course students would be able to understand the basic economic ideas of world economics thinkers. The students will understand the various development theories and their importance.
<b>B.A.III Year Paper ECO 112, ECO 116 Project work</b>	On the completion of this course the students would be able to understand the project writing skill as per the study of research methodology techniques and deep study of specific topic. The students become will be able to prepare questionnaire, schedule, and collection of data, tabulation of data, data presentation and analysis.
<b>B.A.III Year Paper ECO 113 Research methodology</b>	Students will able to understand meaning, nature and scope of social science research, research design and types of research design, skill of data collection, presentation and analyze the collected data. Students will understand importance of social science research.
<b>B.A.III Year Paper ECO 114 Industrial economics</b>	Students will be able to understand the organization of a firm, productivity, efficiency. The students will be aware of the role of industries in economic and social development. Student will be able to understand theories of location and diversification and composition of industrial sector.

<b>B.A.III Year Paper ECO 115</b> <b>Indian economic thinker</b>	On completion of this course students will be able to understand the basic economic ideas of Indian economics thinkers. The students will understand the various development theories and their importance.
---	---



## DEPARTMENT OF HISTORY

Programme Outcomes, Programme Specific outcomes and Course outcomes

Programme Outcomes, B.A. History

<b>Department of History</b>	After successful completion of three year degree program in History a student should be able to :
<b>Programme Outcomes</b>	PO-1.Student will have firsthand experience of conservation. PO-2.Taking interest to find out local history PO-3.To stimulate intellectual curiosity and research attitude in the students through the study and research of local regional, nation and Global history PO-4. The programme will give critical understanding of Indian Society, Economy, Polity and Culture through a historical perspective.
<b>Programme Specific outcomes</b>	PSO-1.To study Great personality in India and the world. PSO-2.To visit's Historical place which are around the Marathwada region. PSO-3.To study the Indian freedom struggle and Freedom Fighter's sacrifice for the sake of Nation. PSO-4.To know the local activist and their contribution in Indian freedom struggle

### Course Outcomes Department of History

<b>Course Outcomes</b>	<b>Outcomes</b>
	After completion of these courses students should be able to:
<b>Paper I Shivaji and His Times (A.D.1630 to 1707)</b>	CO1.Explain the role of Jijabai&ShahajiRajein the development of Swarajya. CO2.Inform the rise of ShivajiMaharaj and his valor. CO3.Explain the role of RajaramMaharaj&Tarabai in the Maratha war Independence. CO4.Able to analyzed Administrative System of Marathas.
<b>Paper IIHistory Of modern India [A.D.1818-A.D.1905]</b>	CO 1.Inform the Early phase of British Rule in Maharashtra CO 2.Explain the Early Socio-religious Reformer. CO 3.The role of VasudevBalwantPhadke Revolt in Maharashtra
<b>Paper III History of Marathas</b>	CO1. Understood the processes that led to the expansion of the Maratha power. CO2.Explain the consequences on third Battle of Panipat.

<b>(A.D.1707-A.D.1818)</b>	CO3. Know the contribution of the Marathas in the national politics of the 18th century. CO4. Understood develop the society and culture in Maharashtra in the 18 <sup>th</sup> century.
<b>Paper IV</b>	
<b>Paper V</b> <b>History of early India( up to B.C.300)</b>	CO1. Analyse ancient historical sources of early India. CO2. Understand the rise, Growth & decline of Indus civilization. CO3. Explain the transitions in Vedic culture. CO4. Describe the rise and growth of Mauryan Empire.
<b>Paper VI</b> <b>British rule in India (1757-1857)</b>	CO1. Explain the political condition of India during 18 <sup>th</sup> century. CO2. Explain the administrative policies of colonial rule from Clive to Canning. CO3. Explain the expansion and consolidation of British rule. CO4. Explain the uprising of 1857, causes, course and consequences.
<b>Paper VII</b> <b>History of India (B.C.300-A.D.650)</b>	CO1. Explain the world markets were in Marathwada during the Satvahna Period. CO2. Explain the Gupta Empire is known as the golden age of ancient India. CO3. Understanding of the polity, economy, society and Art and Architecture of ancient India.
<b>Paper VIII</b> <b>History of Mughal India(1526- 1757)</b>	CO1. Briefly explain the political history of Mughal period. CO2. Explain the administration of Mughal based on ruling classes. CO3. Explain the Religious policies and social life of Mughal emperor.
<b>Paper IX</b> <b>Historiography</b>	CO1. Explain the Definition, Nature, Scope and Kind of History. CO2. Introduction to the Philosophy of History. CO3. Explain the Modern Thinker of History. CO4. Inform the Use and Abuse of History.
<b>Paper X</b> <b>History of India National movement (1885- 1947)</b>	CO1. Explain the rise of Nationalism in India – Causes and development. CO2. Explain the Nationalist movement under the leadership of Mahatma Gandhi. CO3. Explain the Role of women in Indian freedom movement.

<b>Paper XI</b> <b>Women's struggle in modern India (1850-1947)</b>	CO1.Explain the Major issues and conception of women's problems in 19 <sup>th</sup> century. CO2.Understand the women's and law. CO3.Explain the social reform movement and women's emancipation.
<b>Paper XII</b> Project Work	CO1.Explain the should be based on the following Topics. CO2.Develop concept knowledge in Research Methodology.
<b>Paper XIII</b> <b>Felds of history (archaeology, Musicology, Tourism)</b>	CO1.Explain the Knowledge about tools like Archaeology. CO2. Inform the search of Archaeological Sites. CO3.Introduce the Defination of Museum and Musicology. CO4. Explain the Tourism, Motivation of Tourism and types of Tourism.
<b>Paper IVX</b> <b>Landmarks in the history of modern world</b>	CO1.Understanding the renaissance and reformation in the chapter. CO2. .Explain the revolutions in the world and their causes, course and consequence. CO3. .Explain the First and second world war and their causes, course and consequence.
<b>Paper VX</b> <b>Glimpses of the history of Marathawada (U.P. to A.D. 1948)</b>	CO1. Briefly explain the political history of Marathawada. CO2.Understanding the religious movement. CO3.Explain the socio- Economical and cultural history under the nizam state. CO4.Explain the freedom struggle of Hyderabad.

## DEPARTMENT OF PSYCHOLOGY

### Program Outcomes Program Specific Outcomes and Course outcomes

#### B.A. Psychology

<b>Department of Psychology</b>	<b>After successful completion of three year degree program in Psychology a student should be able to</b>
<b>Programme Outcomes</b>	<ul style="list-style-type: none"> <li>• PO-1. Able to understand basic concepts of Psychology.</li> <li>• PO-2. Understand the impact of environment, society, heredity on persons Behaviour.</li> <li>• PO-3. Understand the human social behavior.</li> <li>• PO-4. Awareness of self and social well being.</li> <li>• PO-5. Think scientifically about surrounding human behavior.</li> <li>• PO-6. Understand human development.</li> <li>• PO-7. to write study tour report</li> </ul>
<b>Programme Specific Outcomes</b>	<ul style="list-style-type: none"> <li>• PSO -1. To get admission post graduation course in Psychology.</li> <li>• PSO-2. To interpretation of data and make project/research.</li> <li>• PSO-3. To write scientific case study report.</li> <li>• PSO-4. To use of basic psychological tests and experiments.</li> <li>• PSO-5. Identify and Think on the various psychological problems.</li> <li>• PSO-6. Make use of personality theories in daily practice.</li> <li>• PSO-7. Make Use of Industrial theories while preparing for professional interviews.</li> <li>• POS-7. Analyze and understand abnormal human behavior in practice</li> </ul>
<b>COURSE OUTCOMES: B. A.PSYCHOLOGY</b>	
<b>Course</b>	<b>Outcomes After completion of these course students should be able to</b>
<b>B.A.I Paper I PSY 101/PSY 104 General Psychology</b>	<ul style="list-style-type: none"> <li>• CO.1.To able to understand basic principles of Psychology.</li> <li>• CO 2. To able to understand historical trends of Psychology to able to understand Major Concepts, different perspectives of Psychology.</li> <li>• CO 3. To able to understand an overview of the applications of</li> </ul>

	<p>Psychology.</p> <ul style="list-style-type: none"> <li>• CO 4. To able to understand Career opportunities in Psychology.</li> <li>• CO 5. To understand Roll of Biological base in human behavior.</li> <li>• CO 6. To understand Emotion, Motivation and Sensory Processes.</li> <li>• CO7. To Learn applications of various techniques of psychology.</li> </ul>
<p><b>B.A.I Paper II PSY 102/PSY 105</b> <b>Social Psychology</b></p>	<ul style="list-style-type: none"> <li>• CO 1 .To create the awareness among the students of Social Psychology and it's various fields.</li> <li>• CO 2. To able to understand Social behavior.</li> <li>• CO 3. To understand Self Concept and How to develop it.</li> <li>• CO 4. To able to understand important role of Social relations in individual's life.</li> <li>• CO 5. To able to understand Attitudes, How prejudice are take place and its effect on behavior.</li> <li>• CO 6. To able to understand Aggression and how to control it.</li> <li>• CO 7. To able to understand the ways of communication and its applications.</li> <li>• CO 8. To able to understand the leadership and its characteristics.</li> <li>• CO 9. To learn various applications and techniques of Social Behavior.</li> </ul>
<p><b>B.A.II<sup>nd</sup> year Paper III PSY 107/PSY 110</b> <b>Psychology Adjustment</b></p>	<ul style="list-style-type: none"> <li>• CO. 1. Demonstrate knowledge of major scientific theories and models of personality and adjustment.</li> <li>• CO.2. Understand and apply how the scientific method is used in relevant psychology fields.</li> <li>• CO. 3. Apply relevant psychological concepts and theories to personal experiences and perceptions of others.</li> <li>• CO.4. Increase self-awareness and self-understanding in relation to personal, relational, and social/cultural life domains</li> </ul>
<p><b>B.A.II<sup>nd</sup> year Paper IV PSY 108/PSY 111</b> <b>Psychological</b></p>	<ul style="list-style-type: none"> <li>• CO.1. Introduction to the field of psychological testing in general.</li> <li>• CO.2. Acquaintance with the nature and uses of psychological test</li> <li>• CO.3. Understanding the nature and other description of intelligence</li> </ul>

<b>Testing and Statistics</b>	test, ability tests and personality tests
<b>B.A.III<sup>rd</sup> Paper V PSY 113 &amp; 119 Abnormal Psychology</b>	<ul style="list-style-type: none"> <li>• CO.1.Student is expected to acquire knowledge of causes, symptoms and treatment of various psychological disorders.</li> <li>• CO.2. To understand the criteria of abnormal behaviour</li> </ul>
<b>B.A.III<sup>rd</sup> Paper VI PSY 114&amp; 120 Organization Psychology</b>	<ul style="list-style-type: none"> <li>• CO1 : To enable the students to acquire knowledge of organizational behavior &amp; human psychology</li> <li>• CO2 : To know about Perception and motivation</li> <li>• CO 3 : To learn about the management experiments.</li> <li>• CO4 : To analyze and compare different models used to explain individual behaviors related to motivation and rewards</li> <li>• CO5 : To explain group dynamics and demonstrate skills required for working in groups (team building)</li> <li>• CO6 : To identify the various leadership styles and the role of leaders in a decision making process.</li> <li>• CO7 : To discuss the implementation of organizational change.</li> </ul>
<b>B.A.III<sup>rd</sup> Paper VII PSY 116 &amp; 122 Counseling</b>	<ul style="list-style-type: none"> <li>• CO.1. Introduction to the field of counseling Psychology.</li> <li>• CO.2. Comprehending the applications of counseling Psychology in the fields of career, marriage, couple and family Counseling</li> </ul>
<b>B.A.III<sup>rd</sup> Paper VIII PSY 117&amp; 123 Research Project</b>	<ul style="list-style-type: none"> <li>• CO.1. To acquire basic skills and understand basic concept of Research methodology.</li> <li>• CO. 2. To understand how to make small research project.</li> <li>• CO.3. To learn making group report/project.</li> <li>• CO.4. To able to understand theory of research.</li> <li>• CO. 5. To understand Psychophysics.</li> <li>• CO.6.To understand the perceptual processes.</li> <li>• CO.7.To learn psychological testing.</li> <li>• CO. 8. To understand thinking processes.</li> <li>• CO.9.To understand problem solving concept.</li> </ul>

## DEPARTMENT OF SOCIOLOGY

Program Outcomes, Program Specific Outcomes and Course Outcomes B.A Sociology

<b>Dept of Sociology</b>	<b>After successful completion of three year degree program in Sociology our student is able to</b>
<b>Program outcomes</b>	<ul style="list-style-type: none"> <li>▪ To Develop the sociological perspective</li> <li>▪ Use sociological theory to explain social problems and issues</li> <li>▪ Create new knowledge</li> <li>▪ <b>Use sociological knowledge &amp; theories for Social Development.</b></li> </ul>
<b>program specific outcomes</b>	<ul style="list-style-type: none"> <li>▪ <b>Apply socio- scientific Knowledge to understand the Society</b></li> <li>▪ He is taking initiative in solving social problem.</li> <li>▪ He Is able to understand the origin and development Of the sociology as a discipline in general and development in India in particular and also able to understand the various approach, Principles, concepts, methods and history of sociology.</li> </ul>
<b>Course</b>	Course outcomes B.A sociology
<b>B.A I year(I Sem) paper I introduction to Sociology</b>	Our students able to define sociology subject matter sociology and development of sociology and understand various social concept social institutions social groups and application of sociology in day to day life as well as he is able to analyse , evaluate social problems and understand social policy and action
<b>B.A I year(I Sem) paper II individual and society</b>	Through this course, sociology students Various social concepts and its nature like socialization social structure stratification and agencies of socialization

<b>B.A I year(II Sem) paper III introduction to Subfield of sociology</b>	Applied part of it is applied part of sociology paper student able to get knowledge of sub branch of social sciences nature subject matter scope and significance of rural and urban sociology social anthropology .
<b>B.A I year(II Sem) paper IV Indian social composition</b>	Through this course students will be able to learn about Indian social structure, learn about religious traditions in the structure as well as learn about the differences that create unity in India's diversity. Indian Population Social Justice Indian Constitution In this paper student able to feature of Indian society Indian population democracy and secularism social justice rural and agrarian society of Indian society
<b>B.A II year(III Sem) paper V Indian Social Structure</b>	Students will learn Features features approaches and social basis of social stratification of Indian society .
<b>B.A II year(III Sem) paper VI Population &amp; Society</b>	And unable to understand the concept of population origin basic demographic concept and factors of composition of Indian population
<b>B.A II year(IV Sem) paper VII religion in Indian Society</b>	Students are capable to understand the conceptual classification of religion& various religions in India. students have gain a better understanding of their situation and region it focused on the interface between religion and society .in India and the contestation over religion in contemporary times it includes with an analysis of social change in religion to religion
<b>B.A II year(IV Sem) paper VIII Indian Population Problems</b>	Students will get knowledge of various aspects related to the population policy introduced by the government for population control. And is enable to understand concepts like Slum poverty, unemployment, low standard of living, prostitution, crime.
<b>B.A III year(V Sem) paper IX ISociological Tradition</b>	Students have improved the understanding of historical, social economic and intellectual force in the rise of sociological theories, as well as they have developed the basic



	understanding of emergence of sociological thought and to know about Pioneer sociologist with their contribution to sociology
<b>B.A I year(I Sem) paper X Introduction to Research Methodology</b>	Were capable to apply research methodology of social science in life as well as procedure tool and technique of social research.
<b>B.A III year(V Sem) paper XI Social Problems in Contemporary India</b>	They got knowledge To identify and analyse some of emerging social problem like corruption, white collar crime ,suicide and other from sociological perspective, they have been sensitized about social problems of contemporary India and to discuss to measure on it
<b>B.A III year(V Sem) paper XII Urban Sociology</b>	They got knowledge about Urban Sociology, urban problems. Process of Urbanization , Urbanization ,Theories of Industrial Problems
<b>B.A III year(VI Sem) paper XIII Sociological Theories</b>	They are capable to understand Sociological theories of leading sociologists.
<b>B.A III year(VI Sem) paper XIV Social Research Methods</b>	Were capable to apply research methodology of social science in life as well as procedure tool and technique of social research.
<b>B.A III year(VI Sem) paper XV Social Disorganization in Contemporary in India</b>	Students became aware of problems of these organisations concept and nature of it violence against women terrorism regionalism
<b>B.A III year(VI Sem) Project Paper</b>	Students have acquainted with the actual research method. They have got information on how to prepare for the actual project.

## DEPARTMENT OF POLITICAL SCIENCE

Program Outcomes, Program Specific Outcomes and Course outcomes B.A. Political Science

<b>Department of Political Science</b>	<b>After successful completion of three-year degree program in Political Science a student should be able to</b>
<b>Programme Outcomes</b>	<ul style="list-style-type: none"> <li>• Understand basic concepts of Political Science.</li> <li>• Awareness about political science activity</li> <li>• Solve political science issue with the help of statistical data.</li> <li>• Understand development process.</li> <li>• Ability to analyze current events from a political science perspective.</li> <li>• Ability to understand various social issues and political science problems.</li> </ul>
<b>Programme Specific Outcomes</b>	<ul style="list-style-type: none"> <li>• Get in-depth knowledge of fundamental political science theories.</li> <li>• Apply theories of Political Science to the real political science phenomena with statistical support.</li> <li>• Create awareness about sustainable development.</li> <li>• Implement research methodology in research design, data analysis, planning and interpretation.</li> <li>• It can help to improve living standards and make society a better place.</li> </ul>

<b>Course</b>	<b>COURSE OUTCOMES: B. A. POLITICAL SCIENCE</b>
	<b>Outcomes After completion of these course students should be able to</b>
<b>B.A.I Year Paper POL 101 Basic concept of Political Science</b>	On the completion of this course the students will be able to understand the meaning and scope of Political Science, the market. Students will be able to understand various components regarding price determination under various types of markets, theory of production, cost and revenue analysis.
<b>B.A.I Year Paper POL 102 Government Politics of Maharashtra</b>	Students will be able to understand structure of Indian Politics , human resource development, poverty and unemployment and planning in India.
<b>B.A.I Year Paper POL 103 Basic Concept of Political Science</b>	On the completion of this course the students would be able to understand determination under various types of Social study; students will be able to know about the theory of Politics.
<b>B.A.I Year Paper POL 104 Govt. and Politics of Maharashtra</b>	On completion of the course students will be able to understand the social, political system in India and also understand the function of India and importance of Govt. Indian politics.
<b>B.A.II Year Paper POL 105 Govt. and Politics of India</b>	On completion of the course students will be aware of the basic theoretical framework underlying the field of macro Political Science . Students will understand the concepts of national.
<b>B.A.II Year Paper POL 106 International Relation</b>	On completion of the course students would be able to understand the theories of development and conflict issue for development and underdevelopment.
<b>B.A.II Year Paper POL 107 Govt. and Politics of India</b>	On completion of the course students would be able to understand the detailed information of Indian Politics, public

	revenue, public debt, union Budget. Students will be able to understand benefits and distribution of various types of issue.
<b>B.A.II Year Paper POL 108 International Relation</b>	On completion of this course students would be able to use techniques of statistical analysis which are commonly applied to political science problems. Students would be able to understand role of index number in politics. The students will get enabled regarding the rules for calculating the mean, medium, mode, standard deviation and correlation.
<b>B.A.III Year Paper POL 109 Indian Political Thinker</b>	After completion of the course students can analyze the theories of international trade, understand gains from trade, tariffs and quotas, balance of power.
<b>B.A.III Year Paper POL 110 Western Political Thinker</b>	On completion of this course students would be able to understand the issue in agricultural Political Science , technology in agriculture, agricultural price policy, food security in India. Students will be enabled to analyze the
<b>B.A.III Year Paper POL 111 Political Ideology</b>	On completion of this course students would be able to understand the basic political science ideas of world Political Science thinkers. The students will understand the various development theories and their importance.
<b>B.A.III Year Paper POL 112, POL 116 Project work</b>	On the completion of this course the students would be able to understand the project writing skill as per the study of research methodology techniques and deep study of specific topic. The students will be able to prepare questionnaire, schedule, and collection of data, tabulation of data, data presentation and analysis.
<b>B.A.III Year Paper POL 113 Research methodology</b>	Students will able to understand meaning, nature and scope of social science research, research design and types of research design, skill of data collection, presentation and analyze the

	collected data. Students will understand importance of social science research.
<b>B.A.III Year Paper POL 114 Political Ideology</b>	Students will be able to understand the organization of a firm. The students will be aware of the role of social development. Student will be able to understand theories.
<b>B.A.III Year Paper POL 115 Indian political thinker</b>	On completion of this course students will be able to understand the basic political science ideas of Indian Political Science thinkers. The students will understand the various development theories and their importance.

## DEPARTMENT OF PUBLIC ADMINISTRATION

Program Outcomes, Program Specific Outcomes and Course outcomes B.A. Political Science

### Program Outcome ( POs,)

This program aims to provide the students an understanding of the various concepts of Public Administration as well as the administrative system of India, their impact and relationship with man. The student should be able to understand, analyze and explain the different impacts of the how man is influenced by the administration. B.A. in Public administration will be able to ...

**POs 1.** Demonstrate an understanding of the basic concepts, nature and scope, principles, approaches and theories in the selected administrative fields in Public Administration.

**POs 3.** Establish an understanding of the pattern of administrative development through the ages so as to have better perception of both present and future outcomes in administration.

**POs 4.** Understand the working and functions of various organizations under the Government Administration in India.

**POs 5.** Exhibit the knowledge of Administration at the Centre, State and Local levels in India and be able to differentiate between administration difference between rural and urban areas.

**POs 6.** Develop academic, entrepreneurial and material aptitude with professional ethics for employment in public and private sectors.

**POs 7.** Appreciate the methodological pluralism and synthesizing nature of knowledge in Public Administration;

### Program Specific Outcome ( PSOs,)

The programme specific outcomes of the Three Year ( Six Semesters) B.A. Public Administration programme are as under:

**PSO - 1.** Students would be able to know about the research and development opportunities in the field of Administration / policy/ governance studies.

**PSO - 2.** Students would be able to analyze the effectiveness of governmental policies and programmes.

**PSO - 3.** Students would be familiar with the issues of human rights, disaster management, governance reforms, information communication technology and public administration etc.

**PSO - 4.** Students would gain confidence while dealing with administrative officials and political leaders.

**PSO - 5.** Students would be able to develop their research aptitude and orientation.

**PSO - 6.** Students would be able to learn about the research papers writing and presenting in seminars/conferences.

**PSO -7.** Students would be acquainted with the statistics tools involved in the research methodology etc.

## **Course Outcome ( COs)**

### **Semester I**

#### **Paper I: Principles & Concepts of Public Administration**

At the completion of the B.A. Degree course, student will be able to,

- CO1. Explain the Meaning, Nature & Scope of Public Administration.
- CO2. Differentiate between Public and Private Administration.
- CO3. Explain the Meaning & forms of Organisation.
- CO4. Describe the different Principles of Organisation.
- CO5. Students have understood the Concepts of Public Administration.

#### **Paper II: Public Administration in India**

At the completion of the B.A. Degree course, student will be able,

- CO1. To understand the historical evolution & current global scenario of Indian Administration
- CO2. To describe the constitutional framework in which an individual & the state works.
- CO3. To discern and analyse the connects / disconnects between structure, procedure & functions of government institutions.
- CO4. To understand the form & substance of Indian Administration
- CO5. To acquaint with the changing as well transformative role of Indian Administration

### **Semester II**

#### **Paper III: Maharashtra Administration**

At the completion of the B.A. Degree course, student will be able to,

- CO1. Discuss the formation of Maharashtra State and Its administrative features.
- CO2. Describe the structure and functions of the state Executive.
- CO3. Discuss the structure and functions of the state legislature.
- CO4. Understand the structure and functions of the state judiciary.
- CO5. Identify the relevance of Constitutional and Statutory bodies at the state level such as MPSC, MEC, MFC etc.

#### **Paper IV: District Administration**

At the completion of the B.A. Degree course, student will be able to,

- CO1. To understand the evolution & importance of District Administration.
- CO2. To understand the changing role of district collector.
- CO3. To identify the various aspects of the concept Law & Order.
- CO4. To comprehend the functioning of revenue administration.



CO5. To comprehend the functioning and issues of police administration

### **Semester III**

#### **Paper V: Personnel Administration**

At the completion of the B.A. Degree course, student will be able to,

CO1. To become familiar with the personnel administration i.e. public service in India.

CO2. To identify the role of personnel training institutions such as YASHDA, MPA & LBSNAA.

CO3. To become familiar with the personnel grievance redressal mechanism in India

CO4. To comprehend with the problems of personnel administration in India

CO5. To understand the relevance of administrative tribunal mechanism in India.

#### **Paper VI: Panchayati Raj & Rural Development**

At the completion of the B.A. Degree course, student will be able to,

CO1. To Understand the basic concept of Local Self Government in India

CO2. To Understand the Panchayat Raj System in Maharashtra.

CO3. To Understand the Composition and Function of state Rural Development Ministry.

CO4. To acquaint the concept and Programme of Rural Development.

CO5. To describe the Problems of Rural area.

### **Semester IV**

#### **Paper VII: Financial Administration**

At the completion of the B.A. Degree course, student will be able to,

CO1. To understand the basics of financial administration and importance of the finance ministry.

CO2. To comprehend with the process & importance of budget.

CO3. To describe the major accounts and audit mechanism in India.

CO4. To explain the methods and importance of parliamentary control over financial administration  
In a democratic country.

CO5. To make familiar to students the concept of Liberalization, Privatization & Globalization.

#### **Paper VIII: Urban Local Self Government & Urban Development**

At the completion of the B.A. Degree course, student will be able to,

CO1. To Understand the Basic concept of urban local self Government in India.

CO2..To Understand the Urban local self Government system in Maharashtra.

CO3. To acquaint the Urban Development Agencies in Maharashtra.

CO4. To describe the problems of Urban area.

CO5. To Identify the Major Urban Development Programmes.

### **Semester V**

#### **Paper IX: Human Resource Development**

At the completion of the B.A. Degree course, student will be able to,

CO1. Explain the nature, scope, structure & processes of human resource development.

CO2. Understand the changing paradigms of human Resources development.

CO3. Unravel the varying methods of performance assessment of public institutions.

CO4. Appreciate the changing paradigms of human resource development

CO5. Identify the systems and processes of financial and material resource development

#### **Paper X: Educational Administration in India**

At the completion of the B.A. Degree course Student will be able to,

CO1. Discuss the objectives and importance of Education

CO2. Describe the historical background of Education in the light of various Committee's recommendations and government policies.

CO3. Identify the role of Quality Control Institutions, such as NAAC and AICTE, in Higher Education.

CO4. Describe the structure, relevance and the present Scenario of Higher Education in India.

CO5. Analyse the impact of Globalization on Higher Education in India.

#### **Paper XI : Administrative Thinkers**

At the completion of the B.A. Degree course, student will be able to,

CO1. Discuss the concept of Scientific Management by F. W. Taylor.

CO2. Write down Max Weber's Ideal Model of Bureaucracy.

CO3. Explain the elements and Principles of Management.

CO4. Understand Mary Follet's ideas of Authority, conflict and integration.

CO5. Describe Elton Mayo's Hawthorn Experiment.

CO6. Examine the Behavioural approach and Decision-Making approach by H. Simon.

CO7. Write down the Ecological approach and the concept of Prismatic Society by F. W. Riggs.

### **Semester VI**

#### **Paper XIII: Public Policy**

At the completion of the B.A. Degree course, student will be able to,

CO1. Explain the concept of Public Policy.

CO2. Discuss the role of internal determinants in the formulation of Public Policy.

- CO3. Discuss the role of Executive and Bureaucracy in the implementation of Public Policy.
- CO4. Explain the concept of Development.
- CO5. Describe the challenges before Development.

#### **Paper XIV: Health Administration in India**

At the completion of the B.A.Degree course Student will be able to,

- CO1. Explain and compare the organizational elements, structure, performance, terminology, and delivery modalities for India healthcare systems.
- CO2. Analyze the structure and interdependence of healthcare system elements and issues using critical thinking to formulate innovative system designs that improve health care delivery.
- CO3. Integrate concepts of ethics, privacy, Administration to achieve optimal organizational effectiveness while adhering to personal and professional values in all elements of health delivery.
- Co4. To Understand the Basic Concept, Nature, Importance & Objective of Human Resource Management.
- CO5 To Understand the Concept, Need, Significance & Process of Human Resource Planning.

#### **Paper XV : Recent Trends in Public Administration & Important Laws**

At the completion of the B.A.Degree course, student will be able to,

- CO1. Discuss the Concept of New Public Administration and New Public Management.
- CO2. Explain the Public Choice Approach and the relevance of the Civil Society.
- CO3. Write the meaning and importance of the Citizen Charter.
- CO4. Discuss the concept of Good Governance, E-Governance and Disaster Management.
- CO5. Discuss important Laws such as Civil Rights Protection, Consumer Protection, Environment Protection, Right to Public Services.

#### **Paper XII & XVI: Project Work**

At the completion of the B.A. Degree course, student will be able to,

- CO1. To develop the problem solving abilities & communications skill.
- CO2. To demonstrate an understanding of the social, political, economic, and cultural factors that influence public administration.
- CO3. To develop the ability to effectively communicate, both in writing and orally, using the important terminology, facts, concepts, and theories used in the field of public administration.
- CO4. To make familiar with the social, administrative issues and policies.

## DEPARTMENT OF COMMERCE

Programs Outcome, Programs Specific Outcomes and Course Outcomes

Programs Outcomes: B. Com (Commerce)

<p><b>B.Com (Three Years Regular Program)</b></p>	<p>After successful completion of three years degree program in commerce (B. Com.) student should be able to:</p>
<p><b>Program Outcome</b></p>	<ol style="list-style-type: none"> <li>1. This program could provide Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, Warehousing etc., well trained professionals to meet the requirements.</li> <li>2. After completing graduation, students can get skills regarding various aspects like Marketing Manager, Selling Manager, over all Administration abilities of the Company.</li> <li>3. Capability of the students to make decisions at personal &amp; professional level will increase after completion of this course.</li> <li>4. Students can independently start up their own Business.</li> <li>5. Students can get thorough knowledge of finance and commerce.</li> <li>6. The knowledge of different specializations in Accounting, costing, banking and finance with the practical exposure helps the students to stand in organization.</li> </ol>
<p><b>Program Specific Outcome</b></p>	<ol style="list-style-type: none"> <li>1. The students can get the knowledge, skills and attitudes during the end of the B.com degree course.</li> <li>2. By goodness of the preparation they can turn into a Manager, Accountant , Management Accountant, cost Accountant, Bank Manager, Auditor, Company Secretary, Teacher, Professor, Stock Agents, Government employments and so on.,</li> <li>3. Students will prove themselves in different professional exams like C.A. , C S, CMA, MPSC, UPSC. As well as other courses.</li> <li>4. The students will acquire the knowledge, skill in different areas of communication, decision making, innovations and problem solving in day to day business activities.</li> <li>5. Students will gain thorough systematic and subject skills within various disciplines of finance, auditing and taxation, accounting, management, communication, computer.</li> <li>6. Students can also get the practical skills to work as accountant, audit assistant, tax consultant, and computer operator. As well as other financial supporting services.</li> <li>7. Students will learn relevant Advanced accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.</li> <li>8. Students will be able to do their higher education and can make research in the field of finance and commerce.</li> </ol>

### Course Outcomes- (B. Com. First year): Semester-I

Course Outcomes	After completion of these courses students should be able to:
<b>Financial Accounting-I</b>	<ol style="list-style-type: none"> <li>1. To enable the students to learn principles and concepts of Accountancy.</li> <li>2. Students are enabled with the Knowledge in the practical applications of accounting.</li> <li>3. To enable the students to learn the basic concepts of Partnership Accounting, and allied aspects of accounting.</li> <li>4. The student will get thorough knowledge on the accounting practice prevailing in partnership firms and other allied aspects.</li> <li>5. To find out the technical expertise in maintaining the books of accounts.</li> <li>6. To encourage the students about maintaining the books of accounts for further reference.</li> </ol>
<b>Computer applications in Business-I</b>	<ol style="list-style-type: none"> <li>1. To make students familiar with computer environment &amp; operating systems</li> <li>2. To introduce students with accounting packages like tally.</li> <li>3. To develop skill and knowledge among students in applications of internet in education of commerce.</li> </ol>
<b>Business Mathematics and Statistics-I</b>	<ol style="list-style-type: none"> <li>1. To use and understand useful functions in business as well as the concept of EMI.</li> <li>2. To understand the different concept of population and sample and to make students familiar with Calculation of various types of averages and variation.</li> <li>3. To learn the applications of matrices in business.</li> <li>4. To understand the students to solve LPP to maximize the profit and to minimize the cost.</li> <li>5. To use regression analysis to estimate the relationship between two variables and to use frequency distribution to make decision.</li> <li>6. To understand the techniques and concept of different types of index numbers.</li> </ol>
<b>Entrepreneurship Development-I</b>	<ol style="list-style-type: none"> <li>1 To make the students aware about the Business and Business Environment.</li> <li>2. To develop entrepreneurial awareness among students.</li> <li>3. To motivate students to make their mind set for thinking Entrepreneurship as career.</li> </ol>
<b>Business and Industrial Economics</b>	<ol style="list-style-type: none"> <li>1. To provide students knowledge of Industrial Economic concepts and inculcate an analytical approach to the subject matter.</li> <li>2. To arouse the students interest by showing the relevance and use of various economic theories.</li> <li>3. To apply economic reasoning to solve business problems.</li> </ol>

### Course Outcomes- (B. Com. First year): Semester-II

Course Outcomes	After completion of these courses students should be able to:
<b>Financial Accounting-II</b>	<ol style="list-style-type: none"> <li>1. To enable the students to learn principles and concepts of Accountancy.</li> <li>2. Students are enabled with the Knowledge in the practical applications of accounting.</li> <li>3. To enable the students to learn the basic concepts of Partnership Accounting, and allied aspects of accounting.</li> <li>4. The student will get thorough knowledge on the accounting practice prevailing in partnership firms and other allied aspects.</li> <li>5. To find out the technical expertise in maintaining the books of accounts.</li> <li>6. To encourage the students about maintaining the books of accounts for further reference.</li> </ol>
<b>Business Communication &amp; IT applications</b>	<ol style="list-style-type: none"> <li>1. To make students familiar with computer environment &amp; operating systems</li> <li>2. To introduce students with accounting packages like tally.</li> <li>3. To develop skill and knowledge among students in applications of internet in education of commerce.</li> <li>4. To make the students aware about the business communication.</li> <li>5. To understand the process and importance of communication.</li> <li>6. To develop awareness regarding new trends in business communication, various media of communication and communication devices.</li> </ol>
<b>Business Mathematics and Statistics-II</b>	<ol style="list-style-type: none"> <li>1. To use and understand useful functions in business as well as the concept of EMI.</li> <li>2. To understand the different concept of population and sample and to make students familiar with Calculation of various types of averages and variation.</li> <li>3. To learn the applications of matrices in business.</li> <li>4. To understand the students to solve LPP to maximize the profit and to minimize the cost.</li> <li>5. To use regression analysis to estimate the relationship between two variables and to use frequency distribution to make decision.</li> <li>6. To understand the techniques and concept of different types of index numbers.</li> </ol>
<b>Entrepreneurship Development-II</b>	<ol style="list-style-type: none"> <li>1. To make the students aware about the Business and Business Environment.</li> <li>2. To develop entrepreneurial awareness among students.</li> <li>3. To motivate students to make their mind set for thinking entrepreneurship as career.</li> </ol>
<b>Business Organization &amp; Management</b>	<ol style="list-style-type: none"> <li>1. To make familiar the students with the emerging changes in the modern office environment and to develop organizational skills.</li> <li>2. To build up the conceptual , analytical , technical and managerial skills of students efficient office organization and records management</li> <li>3. To understand the concept &amp; functions and importance of management and its application.</li> <li>4. To make the student understand principles, functions and different management theories. .</li> </ol>

**Course Outcomes- (B. Com. Second year): Semester-III**

<b>Course Outcomes</b>	After completion of these courses students should be able to:
<b>Corporate Accounting-I</b>	<ol style="list-style-type: none"> <li>1. This course aims to enlighten the students on the accounting procedures followed by the Companies.</li> <li>2. Student's skills about accounting standards will be developed.</li> <li>3. To make aware the students about the valuation of shares.</li> <li>4. To impart knowledge about holding company accounts, amalgamation, absorption and reconstruction of company.</li> </ol>
<b>IT applications in Business-I</b>	<ol style="list-style-type: none"> <li>1. To make students familiar with computer environment</li> <li>2. To make students familiar with operating systems.</li> <li>3. To make students aware of accounting packages like tally.</li> <li>4. To develop skill among students in applications of internet in commerce education</li> <li>5. To educate students with the networking and different languages of computer.</li> </ol>
<b>Cost Accounting-I</b>	<ol style="list-style-type: none"> <li>1. To keep the students conversant with the ever – enlarging frontiers of Cost Accounting knowledge.</li> <li>2. Students can get knowledge of different methods and techniques of cost accounting.</li> <li>3. To impart Knowledge about the concepts and principles application of Overheads.</li> </ol>
<b>Goods &amp; Service Tax (GST)-I</b>	<ol style="list-style-type: none"> <li>1. Familiarizes the students with the basic GST principles and techniques of preparing and presenting the accounts.</li> <li>2. Provides the underlying framework and concepts of GST accounting in the context of how accounting fits into overall business environment of contemporary Business and Economy.</li> </ol>
<b>Indian Economy</b>	<ol style="list-style-type: none"> <li>1. To familiarize the students with the basic concept of Macro Economics and its application.</li> <li>2. To aware students about Gross National Product (GNP), Net National Product (NNP) ,Income at Factor cost or National Income at Factor Prices ,Per Capita Income , Personal Income ( PI ) ,Disposable Income etc.</li> <li>3. To Study the relationship among broad aggregates.</li> <li>4. To apply economic reasoning to solve the problems of the economy.</li> </ol>

**Course Outcomes- (B. Com. Second year): Semester-IV**

<b>Course Outcomes</b>	After completion of these courses students should be able to:
<b>Corporate Accounting-II</b>	<ol style="list-style-type: none"> <li>1. This course aims to enlighten the students on the accounting procedures followed by the Companies.</li> <li>2. Student's skills about accounting standards will be developed.</li> <li>3. To make aware the students about the valuation of shares.</li> <li>4. To impart knowledge about holding company accounts, amalgamation, absorption and reconstruction of company</li> </ol>
<b>IT applications in Business-II</b>	<ol style="list-style-type: none"> <li>1. To make students familiar with computer environment &amp; operating systems</li> <li>2. To introduce students with accounting packages like tally.</li> <li>3. To develop skill and knowledge among students in applications of internet in education of commerce.</li> </ol>
<b>Cost Accounting-II</b>	<ol style="list-style-type: none"> <li>4. To understand Basic Cost concepts, Elements of cost and cost sheet.</li> <li>5. Providing knowledge about difference between financial accounting and cost accounting.</li> <li>6. Ascertainment of Material and Labor Cost.</li> <li>7. Student's Capability to apply theoretical knowledge in practical situation will be increased.</li> </ol>
<b>Goods &amp; Service Tax (GST)-II</b>	<ol style="list-style-type: none"> <li>1. Familiarizes students to understand the GST structure in our country.</li> <li>2. Provides practical knowledge which will be beneficial to the students in their life time.</li> </ol>
<b>Business Environment</b>	<ol style="list-style-type: none"> <li>1. To make the students aware about the Business and Business Environment.</li> <li>2. To develop entrepreneurial awareness among students.</li> <li>3. To motivate students to make their mind set for thinking entrepreneurship as career.</li> </ol>



**Course Outcomes- (B. Com. Second year): Semester-V**

<b>Course Outcomes</b>	After completion of these courses students should be able to:
<b>Advanced Financial Accounting-I</b>	<ol style="list-style-type: none"> <li>1. To provide the knowledge of various accounting concepts</li> <li>2. To impart the knowledge about accounting methods, procedures and techniques.</li> <li>3. To acquaint students with practical approach to accounts writing by using software package and by learning various accounts</li> </ol>
<b>Management Accounting-I</b>	<ol style="list-style-type: none"> <li>1. Imparts conceptual knowledge of various accounting concepts, conventions and policies.</li> <li>2. Inculcates knowledge about accounting methods, practices and techniques particularly pertaining to joint stock companies.</li> </ol>
<b>Computerized Accounting-I</b>	<ol style="list-style-type: none"> <li>1. To learn the different system concepts used in Computerized Accounting.</li> <li>2. To understand the different types applications and Software of Computerized Accounting.</li> <li>3. To be acquainted with the facts about financial Statements.</li> </ol>
<b>Business Regulatory Framework-I</b>	<ol style="list-style-type: none"> <li>1. The student will well verse in basic provisions regarding legal frame work governing the business world.</li> <li>2. To know the students with the basic concepts, terms &amp; provisions of Mercantile and Business Laws.</li> <li>3. To develop the awareness among the students regarding these laws affecting trade business, and commerce.</li> </ol>
<b>Auditing</b>	<ol style="list-style-type: none"> <li>1. Students will be versed in the fundamental concepts of Auditing and different aspects of tax.</li> <li>2. Students can understand Income Tax system properly, and can get the knowledge of different tax provisions.</li> </ol>
<b>Rural Development &amp; Agriculture Business</b>	<ol style="list-style-type: none"> <li>1. To enable students to understand students to a new approach to the study of the Rural Development &amp; Agriculture Business in Indian Economy.</li> <li>2. To help the students in analyzing the present status of the Agriculture &amp; its Business in Indian Economy.</li> <li>3. To rendering the process of integration of the Indian Economy with other economics of the world with the focus on Rural Development &amp; Agriculture Business.</li> </ol>

**Course Outcomes- (B. Com. Second year): Semester-VI**

<b>Course Outcomes</b>	After completion of these courses students should be able to:
<b>Advanced Financial Accounting-II</b>	<ol style="list-style-type: none"> <li>1. To provide the knowledge of various accounting concepts</li> <li>2. To impart the knowledge about accounting methods, procedures and techniques.</li> <li>3. To acquaint students with practical approach to accounts writing by using software package and by learning various accounts</li> </ol>
<b>Management Accounting-II</b>	<ol style="list-style-type: none"> <li>1. Enables students to know the concept of capital budgeting with reference to time value of money.</li> <li>2. Enables understanding of the functions, advantages, limitations of management accounting.</li> </ol>
<b>Computerized Accounting-II</b>	<ol style="list-style-type: none"> <li>1. To learn the different system concepts used in Computerized Accounting.</li> <li>2. To understand the different types applications of Tally ERP.9</li> <li>3. To be acquainted with the facts about Processing of GST in Tally.</li> </ol>
<b>Direct Tax</b>	<ol style="list-style-type: none"> <li>1. Students can understand Income Tax system properly, and can get the knowledge of different tax provisions.</li> <li>2. To give knowledge about preparation of Audit report, Submission of Income Tax Return, Advance Tax, and Tax deducted at Source, Tax Collection Authorities under the Income Tax Act, 1961.</li> </ol>
<b>Business Regulatory Framework-II</b>	<ol style="list-style-type: none"> <li>1. The student will well verse in basic provisions regarding legal frame work Company act and its provisions.</li> <li>2. To know the students with the basic concepts, terms &amp; provisions of Memorandum and Business Laws.</li> <li>3. To develop the awareness among the students regarding these laws affecting Industry, trade, business, and commerce.</li> </ol>
<b>Advertising &amp; Salesmanship</b>	<ol style="list-style-type: none"> <li>1. This course enables the students, the practical knowledge and the tactics Salesmanship in the marketing.</li> <li>2. To study and critically analyze the basic concepts and trends in Advertising Marketing.</li> <li>3. To aware of the recent changes in the field of marketing.</li> </ol>

## DEPARTMENT OF PHYSICS

### Programme Outcomes (POs)

1. Make use of different laws of physics to solve the physical problems.
2. Apply the formulate for solving physics problems.
3. Conduct experiments in physics and verify laws and interpret them.
4. Make use of the modern tools to learn the physics.
5. To disseminate the physics effectively.
6. Demonstrate the knowledge in physics by performing the physics projects effectively.

### Programme Specific Outcomes (PSOs):

After completion of course students are able to have a specific outcome which is listed as below.

- 1: To understand law of gravitation and its verification
- 2: To clarify law of elasticity and derive its physical constants.
- 3: To understand generation of ultrasonic waves and understand its application.
- 4: To understand laws of acoustics and understand need of acoustics of buildings.
- 5: To know Bernoulli's theorem and understand its practical applications and determine surface tension by Jaeger's method.
- 6: To know modes of transfer of heat.
- 7: To understand different methods heat flow.
- 8: To understand conductivities of different metals.
- 9: To know Van Der Waal's Equation of State and Compare its experimental curves.
- 10: To clarify thermal conductivity dependence on temperature and pressure.
- 11: To know Kelvin and Celsius law.
- 12: To understand Carnot's ideal heat engine and T- ds
- 13: To understand different laws of optics.
- 14: To know different types of lenses and its applications.
- 15: To understand Michelson Interferometer and determine wavelength of light.
- 16: To understand different laws of diffraction and polarization.
- 17: To know different Mathematical interpretation of laws and theorems.
- 18: To know different of laws of Electrostatics.
- 19: To verify different laws of Magnetostatics
- 20: To verify different types of growth and decay of current.
- 21: To understand differentiation and ordinary differentiation.
- 22: To understand statistical, classical statistics.
- 23: To know quantum statistics.
- 24: To know theory of relativity.

- 25: To understand photoelectric effect and application of photoelectric cell.
- 26: To understand X rays spectra and its characteristics.
- 27: To know nuclear forces and models.
- 28: To know different particle accelerator and detector.
- 29: To understand functions of different types of electronics components.
- 30: To verify transistor biasing and amplifiers.
- 31: To verify working of oscillators and Multivibrators.
- 32: To understand types of modulation.
- 33: To know types of crystal structures.
- 34: To know types of bonding and band theory of solids.
- 35: To understand thermal properties of solids.
- 36: To understand free electron theory of metals.
- 37: To know different laws of classical mechanics.
- 38: To know origin of quantum theory.
- 39: To understand wave particle duality and its applications.
- 40: To understand Schrodinger's wave equation and its applications.
- 41: To know laws of electrostatics.
- 42: To understand Faraday's laws of electrodynamics.
- 43: To understand different properties of electromagnetic waves.
- 44: To know interaction of electromagnetic waves with matter.
- 45: To know different atomic models.
- 46: To understand vector atom model.
- 47: To understand molecular spectra and Raman's effect.
- 48: To know different types of LASERs.
- 49: To know the Non conventional Energy Sources.
- 50: To know solar photovoltaic system.
- 51: To understand optical fiber cables and its applications.
- 52: To know fabrication of fiber cable.

### Course Outcome(COs):

Following are the course outcome of Physics Course

Programme	Name of Course	Course Outcome
<b>B.Sc.I</b>	<b>SEMESTER I :</b> <b>Paper I - Mechanics, Properties of Matter and Sound</b>	<b>CO1:</b> To study law of gravitation and its verification <b>CO2:</b> To study law of elasticity and derive its physical constants. <b>CO3:</b> To study generation of ultrasonic waves and understand its application. <b>CO4:</b> To study laws of acoustics and understand need of acoustics of buildings. <b>CO5:</b> To study Bernoulli's theorem and understand its practical applications and determine surface tension by Jaeger's method.
	<b>Paper II - Heat and Thermodynamics</b>	<b>CO1:</b> To study modes of transfer of heat. <b>CO2:</b> To understand different methods heat flow. <b>CO3:</b> Compare conductivities of different metals. <b>CO4:</b> To study Van Der Waal's Equation of State and Compare its experimental curves. <b>CO5:</b> To study thermal conductivity dependence on temperature and pressure. <b>CO6:</b> To study Kelvin and Celsius law. <b>CO7:</b> To study Carnot's ideal heat engine and T- ds
	<b>SEMESTER II :</b> <b>Paper IV - Geometrical and Physical Optics</b>	<b>CO1:</b> To study different laws of optics. <b>CO2:</b> To study different types of lenses and its applications. <b>CO3:</b> To study Michelson Interferometer and determine wavelength of light. <b>CO4:</b> To study different laws of diffraction and polarization.
	<b>Paper V - Electricity and Magnetism</b>	<b>CO1:</b> To study different Mathematical interpretation of laws and theorems. <b>CO2:</b> To study different of laws of Electrostatics. <b>CO3:</b> To study different laws of Magnetostatics <b>CO4:</b> To study different types of growth and decay of current.
<b>B.Sc.II</b>	<b>SEMESTER III :</b> <b>Paper VII - Mathematical, Statistical Physics and Relativity</b>	<b>CO1:</b> To study differentiation and ordinary differentiation. <b>CO2:</b> To study statistical, classical statistics. <b>CO3:</b> To study quantum statistics. <b>CO4:</b> To study theory of relativity.
	<b>Paper VIII - Modern and Nuclear Physics</b>	<b>CO1:</b> To study photoelectric effect and application of photoelectric cell.

		<p><b>CO2:</b> To study X rays spectra and its characteristics.</p> <p><b>CO3:</b> To study nuclear forces and models.</p> <p><b>CO4:</b> To study different particle accelerator and detector.</p>
	<p><b>SEMESTER IV :</b> <b>Paper XI – General Electronics</b></p>	<p><b>CO1:</b> To study functions of different types of electronics components.</p> <p><b>CO2:</b> To study transistor biasing and amplifiers.</p> <p><b>CO3:</b> To study working of oscillators and Multivibrators.</p> <p><b>CO4:</b> To study types of modulation.</p>
	<p><b>Paper XII - Solid State Physics</b></p>	<p><b>CO1:</b> To study types of crystal structures.</p> <p><b>CO2:</b> To study types of bonding and band theory of solids.</p> <p><b>CO3:</b> To study thermal properties of solids.</p> <p><b>CO4:</b> To study free electron theory of metals.</p>
<b>B.Sc.III</b>	<p><b>SEMESTER V :</b> <b>Paper XVII – Classical and Quantum Mechanics</b></p>	<p><b>CO1:</b> To study different laws of classical mechanics.</p> <p><b>CO2:</b> To study origin of quantum theory.</p> <p><b>CO3:</b> To study wave particle duality and its applications.</p> <p><b>CO4:</b> To study Schrodinger’s wave equation and its applications.</p>
	<p><b>Paper XVIII - Electrodynamics</b></p>	<p><b>CO1:</b> To study laws of electrostatics.</p> <p><b>CO2:</b> To study Faraday’s laws of electrodynamics.</p> <p><b>CO3:</b> To study different properties of electromagnetic waves.</p> <p><b>CO4:</b> To study interaction of electromagnetic waves with matter.</p>
	<p><b>SEMESTER VI :</b> <b>Paper XXI – Atomic Molecular Physics and LASER</b></p>	<p><b>CO1:</b> To study different atomic models.</p> <p><b>CO2:</b> To study vector atom model.</p> <p><b>CO3:</b> To study molecular spectra and Raman’s effect.</p> <p><b>CO4:</b> To study different types of LASERs.</p>
	<p><b>Paper XXII – Non Conventional Energy Sources and Optical Fibre</b></p>	<p><b>CO1:</b> To study the Non Conventional Energy Sources.</p> <p><b>CO2:</b> To study solar photovoltaic system.</p> <p><b>CO3:</b> To study optical fiber cables and its applications.</p> <p><b>CO4:</b> To study fabrication of fiber cable.</p>

## DEPARTMENT OF CHEMISTRY

### Program Outcomes, Program Specific Outcomes and Course Outcomes

#### Programme Outcomes: B. Sc Chemistry

<b>Department of Chemistry</b>	After successful completion of three year degree program in Chemistry a student should be able to;
<b>Programme Outcomes</b>	PO-1. Demonstrate, solve and an understanding of major concepts in all disciplines of chemistry. PO-2. Solve the problem and also think methodically, independently and draw a logical conclusion. PO-3. Employ critical thinking and the scientific knowledge to design, carry Out, record and analyze the results of chemical reactions. PO-4. Create an awareness of the impact of chemistry on the environment, Society and development outside the scientific community. PO-6. To inculcate the scientific temperament in the students and outside the scientific community.
<b>Programme Specific Outcomes</b>	PSO-1. Gain the knowledge of Chemistry through theory and practical's. PSO-2. To explain nomenclature, stereochemistry, structures, reactivity, NMR, PMR spectroscopy and mechanism of the chemical reactions. PSO-3. Identify chemical formulae and solve numerical problems PSO-5. Know structure-activity relationship. PSO-6. Understand good laboratory practices and safety. PSO-8. Make aware and handle the instruments/equipments. PSO-9. Understand Heterocyclic compounds, Photochemistry, Aramaticity, kinetics and Catalysis, radioactivity.

### Course Outcomes B. Sc Chemistry

#### Semester-I

<b>Course Outcomes</b>	<b>Outcomes</b>
	After completion of these courses' students should be able to;
<b>Paper-I Inorganic Chemistry</b>	CO1. Understand the shapes of atomic orbital's CO2. Learn electronic configuration of elements. CO3. To study periodic prosperities and its trends in periodic table. CO4. Study the diagonal relationship of S Block elements. CO5. To understand comparative study of P blocks elements.
<b>Paper –II Organic Chemistry</b>	CO1. To study Structure and bonding in organic compounds. CO2. To understand types and mechanism of organic reactions. CO3. To study stereochemistry of organic compounds. CO4. To understand R, S and E, Z nomenclature. CO5. Lear about alkaens, alkenes methods of formation and reactions. CO6. To understand Aramaticity of organic compounds. CO7. To study polyhalogen compounds synthesis and reactions.
<b>Paper III</b>	CO1. To prepare 0.1 N solutions and its Standardization by given solution.

<b>Lab course Course-I</b>	CO2. To identify two acidic and two basic radicals from the mixture. CO3. To determine equivalent weight of mg, Viscosity, surface tension. CO4. To study hydrolysis reaction. CO5. Study of Lambert –Beers Law using spectrophotometer.
<b>Semester -II</b>	
<b>Paper-IV Physical Chemistry</b>	CO-1. To study mathematical concepts: Logarithmic relations and differentiation functions. CO-2. To understands kinetic gas equation and deduction of various gas laws. CO-3 To study chemical kinetics and Catalysis. CO-4. Solve the numerical problems based on Rate constant CO-5. To understand difference between solids, liquids and gases. CO-6. Understand the classification and structure of nematic and cholesterol phases. CO7. Learn laws of crystallography. CO8. To study Colloids and its Classification.
<b>Paper-V Inorganic Chemistry</b>	CO1. To understand properties of noble gases. CO2. Describe valence bond theory and its limitations. CO3. Describe the VSEPR theory and MO theory. CO4. Predict the directional properties of covalent bonds CO5.To understands radioactivity and properties of $\alpha$ , $\beta$ , $\gamma$ . CO6. To study of theory of volumetric analysis.
<b>Paper-VI Lab Course-II</b>	CO1. To identify organic compounds. CO2. To estimate phenol and basicity, molecular weight of organic compounds.

### Course Outcomes B. Sc Chemistry Semester-III

<b>Course Outcomes</b>	<b>Outcomes</b>
	After completion of these courses students should be able to;
<b>Paper VII Organic Chemistry</b>	<b>CO1.</b> Study the preparation of alcohols, phenols, aldehydes, ketones, carboxylic acids, Nitroalkane, amines and their chemical properties with mechanism.
<b>Paper VIII Physical Chemistry</b>	CO1.To study thermodynamic terms and solve numerical on work done CO2.To understands first law of thermodynamics, capacity, calculation of W, q, Du and dH for ideal gas expansion. CO3.To learn second law of thermodynamics concept of entropy, And Helmholtz function. CO4. To study equilibrium constant and free energy. CO5.To study Claudius Clapeyron equation and its application.
<b>Paper IX Lab course III (Physical/Inorganic)</b>	CO1. To determine critical temperature of phenol water system. CO2.To determines solubility of benzoic acid, Heat of naturalization, Partition coefficient, and equilibrium constant. CO3.Determine molecular mass of polymer.



	<p>CO4.To estimate Zn, Mn, Ba and Al gravimetrically.</p> <p>CO5.To estimate Zink, Nickel, Copper and Lead by EDTA using different indicators.</p>
<b>Semester –IV</b>	
<b>Paper –X Inorganic Chemistry</b>	<p>CO1. To study chemistry of elements of first transition series.</p> <p>CO2. To learn about co-ordination compounds.</p> <p>CO3.To study of lanthanides and actinides elements, occurrence and properties.</p> <p>CO4. To study Arrhenius, Bronsted-Lawry, lux-Flood, solvent and Lewis acid bases concepts.</p> <p>CO5. To study Non aqueous solvents: Types, properties and reactions.</p>
<b>Paper-XI Physical Chemistry</b>	<p>CO1.To derives phase rule equation.</p> <p>CO2.Tio study one and two components system.</p> <p>CO3.To understands Raoult's Law and Henry's law.</p> <p>CO4.To study ideal and non-ideal system and partially miscible liquids.</p> <p>CO5. To study specific and equivalent conductance and numerical problems.</p> <p>CO6.To study Kohlrausch's law and its applications.</p> <p>CO7.To study conductometric titration types and its advantages.</p> <p>CO8. To understand tapes of reversible electrodes.</p> <p>CO9.To determine pH,pKa by potentiometric method.</p> <p>CO10. To understand Corrosion and its types.</p>
<b>Paper-XII Lab Course-IV Physical Organic</b>	<p>CO1. To determine normality and strength of HCL,Acetic acid using NaOH solution conductmetrically /pH-metrically.</p> <p>CO2. To verify Lambert-Beers Law.</p> <p>CO3.To estimate amount of sugar and determine RI of ethanol water system.</p> <p>CO4.To prepares derivative, its crystallization and physical constant of organic compounds.</p> <p>CO5.To estimate amount of Nitro group, glucose, ester and amides.</p>
<b>Semester-V</b>	
<b>Paper-XIII Physical Chemistry</b>	<p>CO1.To study Bohr's models of hydrogen atom, Schrodinger equation.</p> <p>CO2.To understand basic feature of different spectrophotometer.</p> <p>CO3.Determine bond length of diatomic molecule.</p> <p>CO4.To understands the laws of photochemistry.</p> <p>CO5. To study Jablonski diagram,</p> <p>CO6. To study optical activity, dipole moment and magnetic property for determination of structure of molecule.</p> <p>CO7.To study synthesis of methods of nano materials.</p>
<b>Paper-XIV Organic Chemistry</b>	<p>CO1. To study NMR, PMR spectroscopy.</p> <p>CO2. To determine structure of compound using UV, IR, and PMR spectroscopic techniques.</p> <p>CO3. To study synthesis and properties of Organometallic compounds</p> <p>CO4.Learn organic synthesis via enolates.</p> <p>CO5.To study fats, oils and detergents: methods of formation properties and uses.</p>

<b>Paper-XV Lab –Course-V Organic Chemistry Inorganic Chemistry.</b>	CO1.To separate and identify binary mixture of organic compounds. CO2.To carry out inorganic qualitative analysis (Semi micro analysis). CO3.To separate binary solution and estimate one component volumetrically or gravimetrically. CO4.To estimate chlorine in given sample of bleaching powder. CO5.To estimate Fe by potassium dichromate using diphenyl ammine indicator.
<b>Semester-VI</b>	
<b>Paper-XVI Inorganic Chemistry</b>	CO1.To understands Metal-ligand bonding in transition metal complexes. CO2. To study electronic spectra of Transition metal complexes. CO3.Learn about nomenclature and classification of Organometallic compounds. CO4. To study essential and trace elements in biological processes. CO5.To study paper and thin layer chromatography and its applications.
<b>Paper-XVII Organic Chemistry</b>	CO1.To study Heterocyclic compounds, Structure, methods of synthesis, properties and reactions. CO2. To learn preparation of Quinoline, Isoquinoline and Indole. CO3.To understand structure Monosaccharides, polysaccharides. CO4. To study the synthesis of Polymers. CO5. To understand synthetic dyes and drugs: properties and synthesis
<b>Paper-XVIII Lab course-VI Organic Chemistry Physical chemistry</b>	CO1.To estimate Carbonyl group, Vitamin C, ascorbic acid and saponification value of oil. CO2. To prepare Hydrozo benzene, Phthalic acid, 2-4 DNP, Picrate of Naphthalene, Anthracene and P-bromo acetanilide. CO3. To determine strength and normality by conductometrically. CO4. To determine empirical formula of SSA. CO5. To determine Fe <sup>2+</sup> ion by potentiometer. CO6.To determine RI of salt solution. CO7. To determine interfacial tension, effect of addition of electrolyte. CO8.To determine standard free energy change.

### Programme Outcomes: M. Sc Organic Chemistry

<b>Department of Chemistry</b>	After successful completion of two year degree program in chemistry a student should be able to;
<b>Programme Outcomes</b>	PO-1. Apply chromatography for qualitative and quantitative analysis PO-2. Determine molecular structure by using UV, IR and NMR. PO-3. Improve the Skill of student in organic research area. PO-4. Synthesis of Natural products and drugs by using proper mechanisms. PO-5. Study of Asymmetric synthesis. PO-6. Determine the Aromaticity of different compounds. PO-7. Solve the reaction mechanisms and assign the final product. PO- 8. Study of medicinal chemistry for lead compound.
<b>Programme</b>	PSO-1.Understand Separation techniques and apply different chromatography

<b>Specific Outcomes</b>	<p>for qualitative and quantity analysis.</p> <p>PSO-2. Understand Group theory and Symmetry Concepts.</p> <p>PSO-3. Know the structure and bonding in molecules/ ions and predict the Structure of molecule/ions.</p> <p>PSO-4. Understand the various type of aliphatic, aromatic, Electrophilic, Nucleophilic Substitution reaction.</p> <p>PSO-5. Understand different type of spectroscopy and its uses.</p> <p>PSO-6. Learn structure elucidation by spectral methods.</p> <p>PSO-7. Synthesis of organic compound using different organic reagents.</p> <p>PSO-8. Understand asymmetric synthesis and enzyme and coenzyme chemistry.</p> <p>PSO-9. Study of Pericyclic and Photochemical reactions.</p> <p>PSO-10. Understand organic synthesis by retrosynthesis approach.</p> <p>PSO-11. Learn the Familiar name reactions and their reaction mechanisms.</p> <p>PSO-12. Study of Chemistry of Natural products.</p> <p>PSO-13. Understand uses of various drugs.</p> <p>PSO-14. Understand good laboratory practices and safety.</p> <p>PSO-15. Learn to Separate organic mixture, Prepare organic compound by multistep and spectra analysis.</p> <p>PSO-16. Understands to carry out project work.</p> <p>PSO-17. Develop research oriented skills.</p>
--------------------------	---

**Course Outcomes M. Sc Organic Chemistry  
Semester-I**

Course	Outcomes
	After completion of these courses students should be able to;
<b>CHE-101 Analytical Chemistry</b>	<p>CO 1. To understand basic Concept of Analytical Chemistry.</p> <p>CO 2. To study statistical treatment of analytical data.</p> <p>CO 3. Study of Basic separation techniques like distillation and solvent and solid phase extraction.</p> <p>CO 4. To understand different types of Chromatographic systems.</p>
<b>CHE-102 Inorganic chemistry</b>	<p>CO 1. Find out the point group of inorganic molecules.</p> <p>CO 2. Learn concept of symmetry elements in molecules.</p> <p>CO 3. To study Reaction mechanism of transition metal complexes.</p> <p>CO 4. To learn about metal ligand equilibrium in solutions.</p> <p>CO 5. To understand inorganic chemistry in biological system.</p>
<b>CHE-103 Organic Chemistry</b>	<p>CO- 1. To study of nature of bonding and aromaticity of organic molecules.</p> <p>CO-2. To understand types of reaction mechanism, structure and reactivity.</p> <p>CO 3. Learn concept of symmetry elements in molecules.</p> <p>CO 4. Learn E and Z, R and S nomenclature .</p> <p>CO 5. Learn <math>SN^2</math>, <math>SN^1</math>, Set Mechanism.</p> <p>CO 6. To understand <math>SE^1</math> and <math>SE^i</math> mechanism.</p>
<b>CHE-104 Physical Chemistry</b>	<p>CO1. To study Logarithmic expression for <math>pH</math> and <math>pOH</math>.</p> <p>CO 2. To study collision theory and derivation of rate equation.</p> <p>CO3. Study of reaction in solution.</p> <p>CO4. To understand chemical thermodynamics.</p>

	CO5 To study surface chemistry. CO6. Learn about electrochemistry.
<b>Semester-II</b>	
<b>CHE-205 Spectroscopic Methods of Analysis.</b>	CO 1. Learn about introduction of spectral method of analysis CO 2. To study of microwave spectroscopy instrumentation and its application. CO 3 To study vibrational and Raman spectroscopy, instrumentation and its application. CO4. To understand instrumentation and its application of Photoelectron spectroscopy. CO5. To study of thermal methods of analysis. CO6. Understand the factors affecting UV-absorption spectra, Interpret IR spectra on basic values of IR-frequencies. CO-7. Discuss the problem of UV, IR and NMR.
<b>CHE-206 Inorganic chemistry</b>	CO1. Determine Spectroscopic term symbol. CO2. To study electronic spectra and magnetic properties of metal complexes. CO3. Learn about chemistry of metal carbonyls. CO4. Study of Metal nitrosyl Compounds. CO5. Know the preparation and properties of Dioxygen and Dinitrogen Complexes.
<b>CHE-207 Organic Chemistry</b>	CO-1. To study aromatic electrophilic and Nucleophilic substitution reactions. CO 2. Study of addition of carbon-carbon multiple bonds. CO3. To learn addition to carbon-Hetero Multiple bond. CO4. To study of elimination reactions. CO5. To understand rearrangement reactions.
<b>CHE-208 Physical Chemistry</b>	CO1. Know the Eigen function, Eigen value, operator and postulates of Quantum mechanics. CO 2. Learn one and three dimensional box, mechanics of particle. CO.3 To study of phase rule and one, two, three component systems. CO4. To study laws of crystallography and symmetry elements. CO-5. To study Jablonski diagram, Fluorescence.
<b>CHE-209 Laboratory Course (General &amp; Analytical Chemistry)</b>	CO1. Determine Saponification value, Chlorine, Mg, Ion exchange capacity. CO2. To calculate Molality, Hardness & COD of water, Pka Value. CO3. Determine $\text{Cu}^{2+}$ , Dichromate & Permanganate ion spectrophotometrically. CO4. To estimate Na/K/Li/Ca by flame photometry. CO5. To estimate Sulpha drug, Vitamin c, Aspirin.
<b>CHE-210 Laboratory Course (Inorganic)</b>	CO1. To identify acidic and basic radical by semi micro analysis method. CO2. To separate and estimate of metal ion from the binary Mixture solutions. CO3. To prepare metal complexes and its characterization, estimation of metal ions. CO4. To determine $R_f$ values of Ag, Hg, Cd, Ni, Mg, Zn, Sr, Ba by paper chromatography.
<b>CHE-210 Laboratory</b>	CO1. To separate and Identify binary mixture. CO2. Preparation of organic compounds, their purifications and run TLC.

<b>Course (Organic)</b>	CO-3. Determination of physical constant: Melting point, Boiling point.
<b>CHE-210 Laboratory Course (Physical)</b>	CO1. Determination of strengths of halides, dissociation constant of phosphoric acids, amino acids by potentiometer. CO2. To determine strengths of acid by calorimetrically. CO.3 Study of kinetic inversion of cane sugar. CO4. Determine $pK_1, pK_2$ of phosphoric acid by pH Metry. CO5. To study molecular refraction and calculate refraction of $CH_2, C, H$ and $O$ . CO6. To determine radius of molecule, Viscosity constant, rate of reaction, hydrolysis of ester.

### Semester-III

<b>CHEO-313 Structural Elucidation by Spectral Methods.</b>	CO 1. To Study $^1H$ NMR Spectroscopy: Chemical Shift, deshielding, Correlation for protons bonded to carbon and other nuclei. CO2. To understand $^{13}C$ Nuclear Magnetic Resonance Spectroscopy. CO3. Study of mass spectrometry: Instrumentation, various methods of Ionization. Different detectors rules of fragmentations of different functional groups. CO4. To solve problems based on UV, IR, NMR, $^1H$ , $^{13}C$ and Mass spectroscopy. CO5. To study Mossbauer Spectroscopy: Principles, Factors affecting, Numerical. CO6. To Study Electron Spin Resonance Spectroscopy Instrumentation and applications.
<b>CHEO-314 Organic Synthesis</b>	CO1. To study oxidation of alcohols to aldehydes, ketones or acids. CO2. To study reduction reactions by different reagents. CO3. To study the use of organic Reagents. CO4. To understand reaction intermediate. CO5. To study formation of carbon carbon bonds via Organometallic reagents.
<b>CHEO-315 Asymmetric and Bio organic Chemistry.</b>	CO1. To understand basic concept of Bioorganic chemistry. CO2. To study of enzymes, structure, use, Mechanism. CO3. Learn about co Enzymes, Structure, Uses. CO4. To study of Supramolecular Chemistry and Biomimetic Chemistry. CO5. To understand Asymmetric Synthesis.
<b>CHEO-316 Photochemistry, Free Radicals And Pericyclic Reactions</b>	CO-1. Learn Pericyclic reaction: Electro cyclic, Cycloaddition, and Ene Reaction, analysis by correlation diagram, FMO approach and ATS concept. CO2. Study of Sigmatropic reactions. CO3. To understand Photochemistry of $(\pi, \pi^*)$ and $n, \pi^*$ transitions CO4. To study addition to c-c multiple bond. CO5. Learn about free radical and its reactions.

### Semester-IV

<b>CHEO-417 Organic Synthesis:</b>	CO1. To understand retrosynthesis, analysis and designing. CO2. To study disconnection approach. CO3. Learn about protecting groups.
------------------------------------	--

<b>Retro synthesis Approach.</b>	CO4.To study C- C one and two groups Disconnections. CO5.To study ring synthesis 3,4,5&6 member rings. CO6. To study complex molecules synthesis.
<b>CHEO-418 Advanced Organic and Heterocyclic Chemistry</b>	CO1. To study different types of rearrangements. CO2.Learn about various name reactions. CO3. To study Nomenclature of all types of heterocycles. CO4. To study general synthesis routes based on name reactions. CO5.To analyses of spectra of Four, five, six and fused member heterocycles.
<b>CHEO-419 Chemistry of Natural Products</b>	CO1. To Study Terpenoids & Carotenoids :classification isolation Methods of structure determination. CO2. To study of structures determination of alkaloids. CO3. To understand structure determination of Steroids. CO4.Lear about synthesis and structure determination of Anthocyanins and Flavones. CO5. To study building blocks and Construction Mechanism of Terpenoids, Alkaloids.
<b>CHEO-420 Medicinal Chemistry</b>	CO1. To study of basic consideration of drugs activity. CO2. Learn about Pharmacokinetics and Pharmacodynamics. CO3. To understand Classification of each class of drugs. CO4. To synthesis and study utility of Anti inflammatory Drugs, Anti hypertensive drugs acting on CNS, anesthetic drugs, antibiotics and Anti diabetic drugs.
<b>CHEO-421 Qualitative analysis of Ternary Mixture.</b>	CO1. To analysis of ternary mixture. Separation and analysis.
<b>CHEO-422 Organic Multistep Preparation.</b>	CO1. Preparation of organic compounds two stages, their purifications and run TLC. CO-2. Different separation techniques.
<b>CHEO-423 Green Synthesis.</b>	CO1. Preparation of organic compounds one stage by green synthesis. CO2. Determine structure of organic compounds by spectral analysis.
<b>CHEO-424 Project Work</b>	CO1. To carry out project work. CO2. To study how to write Literature survey, aim, Scope of the project, experimental details, Result and discussions.

## DEPARTMENT OF MATHEMATICS

### **Programme Outcomes:**

By the end of B. Sc. (Mathematics) programme, a student will be able

PO1: To interpret and analyze every perception in the life.

PO2: To construct Mathematical Modeling from real world problems

PO3: To use Mathematics in other disciplines.

PO4: To recognize what constitutes mathematical thinking, including the ability to produce and judge the validity of rigorous mathematical arguments.

PO5: To develop scientific temper in students.

PO6: To achieve professional skills to ensure productive career

PO7: To acquire basic practical skills and technical knowledge along with domain knowledge of different subject in science stream.

PO8: Be prepared for life-long learning.

PO9: Develop effective communication skills.

PO9: To independently expand mathematical expertise when needed.

PO10: To acquire subject knowledge required for higher education and eligible for job opportunities.

### **Programme Specific Outcomes:**

PSO1: Be Familiar with different areas of Mathematics.

PSO2: Construct modeling using mathematical tools.

PSO3: Develop the skills necessary to formulate and understand proofs and to provide justification.

PSO4: Able to solve problems using a broad range of significant mathematical techniques.

PSO5: Think critically and communicate clearly mathematical concepts and solutions to real-world problems.

PSO6: Develop creativity in the quest for novel or elegant solutions

PSO7: Develop an understanding of precise language of Mathematics and able to integrate mathematical arguments with their critical thinking skills.

**Course Outcomes:**

Programme and Semester	Name of the Courses	Course Outcomes
		After the completion of the following courses, students will be able
B. Sc. I (Semester-I)	Differential Calculus (MAT-101)	CO1: To understand the concepts of functions, limits, continuity, scalars, vectors and also understand the relationship between the derivative and the definite integral.
		CO2: To determine limit and derivative of various functions.
		CO3: To understand Leibnitz's theorem, Mean Value theorems.
		CO4: To solve examples by applying various theorems
		CO5: To verify conditions of various theorems
		CO6: To construct examples on mean value theorems
B. Sc. I (Semester-I)	Differential Equations (MAT-102)	CO1: To identify order and degree of differential equations.
		CO2: To identify different types of differential equations and solve them
		CO3: To distinguish between linear, nonlinear, partial and ordinary differential equations.
		CO4: To solve basic application problems described by linear differential equations with constant coefficients.
		CO5: To solve linear equations with constant and variable coefficients also solve exact differential equations and ordinary differential equations with more than two variables.
		CO6: To form the partial differential equations by eliminations of arbitrary constants and arbitrary functions
		CO7: To apply Langrange's method to solve partial differential equations.
B. Sc. I (Semester-II)	Integral Calculus (MAT-201)	CO1: To understand the concepts of integrals and definite integrals
		CO2: To integrate algebraic and trigonometric functions.
		CO3: To calculate the length of a curve when whose equations are given.
		CO4: To the area of surfaces of revolution.
		CO5: To determine the area and volume by applying the techniques of double and triple integrals.
		CO6: To evaluate the volumes of solid using cross-sections.
		CO7: To apply Gauss and Green's theorem to solve examples.



B. Sc. I (Semester-II)	Geometry (MAT-202)	CO1: To understand geometrical terminology for planes, lines, spheres cones, cylinders and conicoid.
		CO2: To transform the equation of general equation plane to normal form.
		CO3: To transform the equation of line from unsymmetrical to symmetrical form.
		CO4: To find shortest distance between two lines
		CO5: To understand plane section of sphere, intersection of two spheres and intersection of a sphere and a line.
		CO6: To solve examples on right circular cone, right circular cylinder and conicoid.
B. Sc. II (Semester-III)	Number Theory (MAT-301)	CO1: To find quotients and remainders from integer division
		CO2: To apply Euclid's algorithm and backwards substitution
		CO3: To apply Fundamental Theorem of Arithmetic to solve examples
		CO4: To understand the definitions of congruences, basic properties of congruences and linear congruences.
		CO5: To solve examples by applying Chinese Remainder Theorem, Fermat's Theorem and Wilson's Theorem.
		CO6: To identify multiplicative function and calculate Phi-Function for any value of n.
B. Sc. II (Semester-III)	Integral Transforms (MAT-302)	CO1: To define Beta and Gamma functions and solve examples
		CO2: To recognize the different methods of finding Laplace transforms, inverse Laplace transforms and Fourier transforms of different functions.
		CO3: To apply the knowledge of L.T, F.T, and Finite Fourier transforms in finding the solutions of differential equations, initial value problems and boundary value problems.
		CO4: To determine properties of Fourier Transform, this may be solved by application of special functions.
		CO5: To determine properties of Laplace Transform, this may be solved by application of differential equations.
		CO6: To determine the relationship between Laplace Transform.

B. Sc. II (Semester-III)	Mechanics-I (MAT-303)	CO1: To define force
		CO2: To prove and understand law of parallelogram of forces.
		CO3: To determine magnitude and direction of resultant of two forces.
		CO4: To solve examples on Triangle law of forces.
		CO5: To understand forces acting on a rigid body.
		CO6: To understand centre of gravity and solve examples.
B. Sc. II (Semester-IV)	Numerical Methods (MAT-401)	CO1: To understand Bisection method, Method of false position and Newton-Raphson method.
		CO2: To define Finite differences.
		CO3: To use Finite differences to prove interpolation formulae.
		CO4: To solve examples on Curve Fitting.
		CO5: To find solution of Linear System of Equations by using methods.
		CO6: To Solve a homogeneous linear system by the eigen value method.
B. Sc. II (Semester-IV)	Partial Differential Equations (MAT-402)	CO1: To distinguish between linear, nonlinear, partial and ordinary differential equations.
		CO2: To form the partial differential equations by eliminations of arbitrary constants and arbitrary functions
		CO3: To find solution of linear partial differential equation by using Langrange's method.
		CO4: To explain Charpit's method to find solution of nonlinear partial differential equations.
		CO5: To solve Linear Homogeneous and Linear Non-Homogeneous partial differential equations.
		CO6: To obtain the canonical forms of the partial differential equations
B. Sc. II (Semester-IV)	Mechanics-II (MAT-403)	CO1: To define and understand the concepts of particle, velocity and acceleration.
		CO2: To find the expressions for velocity and acceleration in terms of vector derivatives.
		CO3: To solve examples on tangential and normal components of acceleration.
		CO3: To understand Newton's Laws of Motion.
		CO4: To explain difference between Kinetic Energy and Potential Energy.
		CO5: To understand Motion of Projectile and Motion in

		Resisting medium.
		CO6: To find differential equation of the path of particle moving under a central force directed towards zero.
B. Sc. III (Semester-V)	Real Analysis-I (MAT-501)	CO1: To define the real numbers, least upper and lower bounds.
		CO2: To describe fundamental properties of the real numbers that lead to the formal development of real analysis.
		CO3: To demonstrate an understanding of limits and how they are used in sequences, series, differentiation and integration.
		CO4: To define functions between sets; equivalent sets; finite, countable and uncountable sets. Recognize convergent, divergent, bounded, Cauchy and monotone sequences.
		CO5: To Calculate the limit superior, limit inferior, and the limit of a sequence.
		CO6: To Recognize alternating, convergent, conditionally and absolutely convergent series.
B. Sc. III (Semester-V)	Abstract Algebra-I (MAT-502)	CO1: To present the relationships between abstract algebraic structures with familiar numbers systems such as the integers and real numbers.
		CO2: To define and understand a group, order of a finite group and order of an element.
		CO3: To understand normal subgroups, cyclic subgroups and solve examples.
		CO4: To solve examples on rings, ideals and quotient rings
		CO5: To understand the concept of polynomial rings.
		CO6: To Present concepts and properties of various algebraic structures.
B. Sc. III (Semester-V)	Ordinary Differential Equation-I (MAT-504)	CO1: To define complex numbers, functions, polynomials.
		CO2: To solve examples on complex numbers.
		CO3: To compute roots of polynomials using theorem.
		CO4: To solve system of linear equations
		CO5: To find solutions of linear equation of first order by using theorems.
		CO6: To identify the solutions are either linearly dependent or independent and prove formula for the Wronskian.
B. Sc. III (Semester-VI)	Real Analysis-II (MAT-601)	CO1: To define a function on a metric space is discontinuous, continuous, or uniformly continuous.
		CO2: To solve examples on a metric space is discontinuous, continuous, or uniformly continuous.

		CO3: To understand subsets of a metric space are open, closed, connected, bounded, totally bounded and compact.
		CO4: To define Riemann Integral and find upper sum and lower sum.
		CO5: To prove Fundamental Theorem of Calculus.
		CO6: To solve examples by applying theorems.
B. Sc. III (Semester-VI)	Abstract Algebra-II (MAT-602)	CO1: To define vector spaces and subspaces.
		CO2: To understand properties of vector spaces and subspaces.
		CO3: To solve examples on Linear Independence and Bases.
		CO4: To understand concept of Dual Spaces.
		CO5: To solve examples on Inner Product Spaces
		CO6: To understand and prove Schwarz inequality.
		CO7: To define R-module.
B. Sc. III (Semester-VI)	Ordinary Differential Equation-II (MAT-604)	CO1: To understand concept of Existence and Uniqueness Theorem.
		CO2: To identify homogeneous and non-homogeneous equations and solve it.
		CO3: To identify applications of ordinary differential equations.
		CO4: To discuss what is meant by Initial-Value-Problems.
		CO5: To describe what is meant by solutions of ordinary differential equations.
		CO6: To recognize ordinary differential equations concepts that is encountered in the real world.
		CO7: To Analyze real world scenarios to recognize ordinary differential equations are appropriate.

## DEPARTMENT OF BOTANY

### **Programme Outcome (POs):**

Following are the programme outcome of the Botany course

1. To identify taxonomic position of plants, methods of nomenclature system and systems of classification of plants
2. Information of medicinal plants and their utilization for solving health problems, disorders and diseases management of human beings.
3. To identify host-pathogen relationship of plant, symptoms, control measures and resolved the problem of crop and plant diseases.
4. To know and estimate phytochemical contents of plants
5. To obtain research oriented knowledge of plants and analyzed the data for further predictions.
6. To acquire information about conservation of rare and endangered, threatened plants for to maintain ecological balance.
7. Maintain biodiversity and create awareness about environmental issues and its importance for society and understand social responsibilities.
8. To understand scientific concepts and ideas about plants, ecosystem, ecology, morphology of higher vascular plants and their economic importance.
9. To understand the role of plant ecosystem and functioning at global level.
10. Evaluation of plant diseases caused by different causal organisms and plant diversity.

### **Programme Specific Outcomes (PSOs):**

After completion of course students are able to have a specific outcome which is listed as below

1. To understand the useful and harmful activities of every plants present in nature.
2. To understand the disease symptoms of plants, etiology and control measures plant diseases caused by viruses, bacteria and fungi etc.
3. To know the medicinal properties, economic importance of plants.
4. To obtain information of plant diversity and its conservation.
5. To understand different types tissues associated with plants.
6. To know the anatomical structure of monocotyledonous and dicotyledonous plants.
7. To understand concept of plant physiology, ecology, embryology, and plant science.
8. To understand developmental stages of double fertilization and triple fusion concept of an angiosperm plants.
9. To understand normal and abnormal secondary growth and development of woody plants.
10. Demonstration of different ecological factors like biotic and abiotic.
11. To understand concept of ecological adaptations, an ecosystem and it's functioning.
12. To understand identification of plants by using different key aspects like morphology, anatomy, embryology, cytogenetic, biochemistry etc.
13. To understand conceptual approaches of plant taxonomy, systematics, phylogeny, palynology, origin and evolution of an angiosperms.
14. To understand identification of plant diseases by using different parameters.
15. To know rules of ICBN (Indian Code of Botanical Nomenclature)and technique of Herbarium preparation and its importance.

16. To learn scope and importance of cell biology, molecular biology, genetics and biotechnology.
17. To understand the growth regulators of plants to develop the farming, crop improvement and agronomy.
18. To know about exploitation of hybrid variety and process of hybridization.
19. To understand the rate of transpiration, photosynthesis, photorespiration among plants.
20. To know the scope and importance of plant physiology and plant pathology.
21. Students will be able to access primary literature to identify relevant work for particular topic and evaluate scientific content of the work.
22. Students are able to identify, classify and describe the plants and also compare the characteristics of Algae, fungi, Bryophyte, Pteridophyte, Angiosperms, gymnosperms etc.
23. Accurate interpretation of collected plant material and use of taxonomical information to evaluate the taxonomic positions.
24. Evaluation of ideas regarding microorganisms, plant diseases, spores identification etc so as to recognize the broad classification and phylogenetic level of formulations.
25. Students will be able to demonstrate experimental techniques and methods of analysis in the area of life sciences.
26. Students will be able to explore the ideas and drawing upon knowledge of flower development, physiological adaptations, development, reproductions, growth, plant movement and different mode of life cycles and different forms of plants related to diversity.
27. Students will be able to explain life of earth, environmental consequences, structure of populations, ecological communities, and different ecosystems.
28. To access information and inculcate data of plant resources.
29. To formulate flora and fauna of local areas.
30. To explore the ideas of agriculture and forestry.

## Course Outcome (Cos):

Following are the Course outcome of the Botany course.

<b>Programme</b>	<b>Name of Course B.Sc.Botany</b>	<b>Course Outcome Botany</b>
<b>B.Sc.I</b>	<b>SEMESTER - I Diversity of Cryptogams - I</b>	CO1. To identifies the fungal spores. CO2. To understand the diseases caused by plants CO3. Clear the difference between flowering and Non flowering plants. CO4. Understand the non flowering plants CO5. To clarify difference between Algae, Fungi, Lichens and viruses.
	<b>Morphology of Angiosperms -II</b>	CO1. To identifies the plants on morphological Characters of plants. CO2. To understand the Morphoogy of flowering Plants. CO3. Clear the concept of modifications of root, Stem and leaf of plants. CO4. Understand the pollination mechanism of Flowering plants. CO5. Understand the botanical terms and Nomenclature system of plants. CO6. Inculcate the details study of morphological Structure of plants.
	<b>SEMESTER – II Diversity of Cryptogams - II</b>	CO1. To identifies Bryophytes and Pteridophytes plants on the basis of morphology and Adaptations. CO2. To understand concept of reproduction in Cryptogams. CO3. Clear the difference between Bryophytes and Pteridophyte plants. CO4. To know about Gymnosperm plants. CO5. To understand the developmental stages of cryptogrammic plants like bryophyte and Pteridophytes.
	<b>Histology, Anatomy and Embryology-VI</b>	CO1. To identifies different types of tissues. CO2. To understand Simple and complex tissue System of plants. CO3. To understand anatomical parameters used for Identification of plants. CO4. To study about anatomy of dicotyledonous and monocotyledonous plants CO5. To clarify difference between Dicot and monocot. CO6. Study of dicot and monocot embryo.

		<p>CO7. To understand the difference between Endosperms and embryo.</p> <p>CO8. To understand the different types of ovule, Endosperms and embryo.</p>
<b>B.Sc.II</b>	<b>SEMESTER – III Taxonomy of Angiosperms</b>	<p>CO1. To understand the terminology of taxonomy and Angiosperms.</p> <p>CO2. To understand taxonomic positions of plants. System of plants.</p> <p>CO3. To understand botanical terms of flower, Calyx, corolla, androecium and Gynoecium.</p> <p>CO4. To study of different types of flower like Unisexual, bisexual etc.</p> <p>CO5. To clarify difference between floral formula and floral diagram</p> <p>CO6. To Study of complete and Incomplete flower.</p> <p>CO7. To understand the description of flowering Plants form habitat to pollination.</p>
	<b>Plant Ecology</b>	<p>CO1. To understands the concept of ecology.</p> <p>CO2. Students will understand and explain life of earth, environmental consequences</p> <p>CO3. To understand the Structure of populations, Ecological communities and different Ecosystems.</p> <p>.CO4. To study of different types ecological Adaptations of pants.</p> <p>CO5. To clarify difference ecosystem and ecology.</p> <p>CO6. Student can understand the ecological Pyramids, environmental parameters.</p> <p>CO7. To know about hydrophytes, xerophytes, Epiphytes halophytes etc.</p> <p>CO8. To understand the water cycle, biogeochemical cycles, eutrophication etc.</p>
	<b>SEMESTER – IV Gymnosperms and Utilization of plants</b>	<p>CO1. To understand the concept of Gymnosperms.</p> <p>CO2. To understand systematic positions of plants. Naked of plants.</p> <p>CO3. To understand botanical terms of flower, And utilization of plants.</p> <p>CO4. To study of different types medicinal properties of plants</p> <p>CO5. Students can understand the phylogeny and Evolution of gymnosperms.</p> <p>CO6. To understand medicinal properties plants and Their utilization on curing some diseases..</p> <p>CO7. Student can avail the opportunity to understand</p>



		The economic importance of gymnosperms..
	<b>Plant Physiology</b>	CO1.To understand the concept of photosynthesis And synthesis of chlorophyll pigment. CO2. Student can learn and understand physiological Process of plants. CO3. Students can understand the PSI and PSII System. CO4.Students can understand the Calvin Cycle, Krebs cycle, HSK cycle, CAM pathway, Hills Reaction, Glycolysis etc. CO5. To understand the theories of plant movement.
<b>B.Sc.III</b>	<b>SEMESTER – V Cell Biology and Molecular Biology</b>	CO1.To understand about the cell organelles and Their role. CO2. Student can learn organization of different plant cell like bacterial cell, prokaryotes and Eukaryotes etc. CO3. To understand concept of cell biology and Molecular biology. CO4.To study of Nucleic acid and its structure. CO5. Students can understand the difference between DNA and RNA CO6. To understand the role of RNA in protein Synthesis. CO7. To understand the basics of amino acids and Polypeptide chain. CO8. To understand the process of cell division like Mitosis and Meiosis.
	<b>(C)Plant Pathology</b>	CO1.To understand plant diseases. CO2. To understand control measures and remedy for Crop plants. CO3. To inculcate and know the host pathogen Relationship. CO4.To knows about insecticides, pesticides, Herbicides and weedicides. CO5. Students can understand the sporic Development of plants. CO6. To understand medicinal properties plants and Their utilization on curing some diseases. CO7. To understand and resolve the diseases of crop plants
	<b>SEMESTER – VI Genetics and Biotechnology</b>	CO1.To understand the concept of genetics and biotechnology.

		<p>CO2. To understand Mendels dihybrid cross and ratios.</p> <p>CO3. To understand monohybrid cross and its ratio.</p> <p>CO4.To understand about supplementary and Complementary ratio.</p> <p>CO5. Students can understand sex linked inheritance and determinations.</p> <p>CO6. To understand chromosomal theory.</p> <p>CO7. To understand techniques of biotechnology like PCR, Gene mapping, gene cloning ,genetic Engineering etc.</p>
	<p><b>(C)Microbiology and Disease Management</b></p>	<p>CO1.To understand plant diseases and its Management.</p> <p>CO2. To understand control measures and remedy for Diseased plants.</p> <p>CO3. To inculcate and know the host pathogen Relationship.</p> <p>CO4.To knows about microspores leads to disease Cycle.</p> <p>CO5. Students can understand the factors causing diseases.</p>

## Programme Outcome (POs):

Following are the programme outcome of the M.Sc. Botany course

- **PO1. Effective communication skill:** Students can successfully transfer the scientific knowledge and develop their effective communication skill.
- **PO2. Environmental awareness and sustainability:** To insist significance of conservation and clean and safe environment and sustainable development.
- **PO3. Interaction with society:** During field study or botanical tour an effective interaction with society.
- **PO4. Ethics:** To incorporate biological and environmental ethics.
- **PO5. Critical thinking:** Application of knowledge of botany to develop scientific approach.
- **PO6. Lifelong learning:** The study will help directed and cope with growing competition for higher education and self-employment.
- **PO7.** Student can create environmental awareness among people and percolate knowledge, skill and ethics.

## Programme Specific Outcomes (PSOs):

After completion of course students are able to have a specific outcome which is listed as below

- **PSO1.** To inculcate strong fundamentals on classical and modern aspects of botany.
- **PSO2.** To create awareness and platform for higher educational studies in botany.
- **PSO3.** Facilitate students to take up successful career in botany.
- **PSO4.** To educate students around the Kannad Tahesil about plant sciences.
- **PSO5.** To built up life skill education in botany.
- **PSO6.** Student become to understand social responsibility.
- **PSO7.** Student are able to appear for different civil services.
- **PSO8.** Student go for RFO, DFO, and Agriculture officer by appearing in govt.examination by selecting Botany subject.
- **PSO9.** Student understand the problems of environment and climate change.
- **PSO10.** Student can stand in global world after getting knowledge and degree with botany subject.
- **PSO11.** Students can able to stand in the era of globalization and solve their won problems.

## Course Outcome (Cos)

Following are the Course outcome of the M.Sc. Botany course

<p><b>M.Sc.I</b></p>	<p><b>SEMESTER - I</b>  <b>BOT 401</b>  <b>Cell Biology</b></p>	<p>CO1. To understand about the cell organelles and Their role.            CO2. Student can learn organization of different plant cell like bacterial cell, prokaryotes and Eukaryotes etc.            CO3. To understand concept of cell biology and Molecular biology.            CO4. To study of Nucleic acid and its structure.            CO5. To understand the role of RNA in protein Synthesis.            CO6. To understand the basics of amino acids and Polypeptide chain.            CO7. To understand the process of cell division like Mitosis and Meiosis.</p>
	<p><b>BOT-402</b>  <b>Molecular Biology</b></p>	<p>CO1. To study of Nucleic acid and its structure.            CO2. To understand the role of RNA in protein Synthesis.            CO3. To understand the basics of amino acids and Polypeptide chain.            CO4. To understand the process of cell division like Mitosis and Meiosis.</p>
	<p><b>BOT 403</b>  <b>(Biology and Diversity of Algae, Fungi and microbes)</b></p>	<p>CO1. To identifies Bryophytes and Pteridophytes plants on the basis of morphology and Adaptations.            CO2. To understand concept of reproduction in Cryptogams.            CO3. Clear the difference between Bryophytes and Pteridophyte plants.            CO4. To know about Gymnosperm plants.            CO5. To understand the developmental stages of cryptogrammic plants like bryophyte and Pteridophytes.</p>
	<p><b>BOT 404</b>  <b>(Taxonomy of Angiosperms)</b></p>	<p>CO1. To understand the terminology of taxonomy and Angiosperms.            CO2. To understand taxonomic positions of plants. System of plants.            CO3. To understand botanical terms of flower, Calyx, corolla, androecium and Gynoecium.            CO4. To study of different types of flower like</p>

		<p>Unisexual, bisexual etc.</p> <p>CO5. To clarify difference between floral formula and floral diagram</p> <p>CO6. To Study of complete and Incomplete flower.</p> <p>CO7. To understand the description of flowering Plants form habitat to pollination.</p>
<b>M.Sc.I</b>	<b>SEMESTER -II</b> <b>BOT 406</b> <b>Cytology and Genetics</b>	<p>CO1. To clear the concept of cell biology.</p> <p>CO2. To understand the concept of genetics.</p> <p>CO3. To notify and understand the process of cell divisions.</p>
	<b>BOT 407</b> <b>Plant Development &amp; Reproduction</b> <b>Plant Development</b>	<p>CO1. To identifies different types of tissues.</p> <p>CO2. To understand Simple and complex tissue System of plants.</p> <p>CO3. To understand anatomical parameters used for Identification of plants.</p> <p>CO4. Study of dicot and monocot embryo.</p> <p>CO5. To understand the difference between Endopserms and embryo.</p> <p>CO6. To understand the different types of ovule, Endopserms and embryo.</p>
	<b>BOT 408</b> <b>Biotechnology</b>	<p>CO1. To understand the concept of genetics and biotechnology.</p> <p>CO2. To understand the different techniques of biotechnology such as RAPD, RFLP, DNA fingerprinting etc.</p> <p>CO3. To understand chromosomal theory.</p> <p>CO4. To understand techniques of biotechnology like PCR, Gene mapping, gene cloning, genetic Engineering etc.</p> <p>..</p>
	<b>BOT 409</b> <b>Plant Physiology and Metabolism</b>	<p>CO1. To understand the concept of photosynthesis And synthesis of chlorophyll pigment.</p> <p>CO2. Student can learn and understand physiological Process of plants.</p> <p>CO3. Students can understand the PSI and PSII System.</p> <p>CO4. Students can understand the enzyme substrate complex mechanism.</p> <p>CO5. To understand the theories of plant movement.</p>

M.Sc.II	<b>SEMESTER -III</b>  <b>BOT 501: Biology &amp; Diversity Of Bryophytes, Pteridophytes &amp; Gymnosperms</b>	CO1. To understand the difference between Bryophyte, Pteridophyte and Gymnosperms etc. CO2. To understand the phylogeny and concept of evolution of vascular and non-vascular plants. CO3. To understand the concept of Gymnosperms. CO4. To understand systematic positions of plants. Naked of plants. CO5. Students can understand the phylogeny and Evolution of gymnosperms. CO6. Student can avail the opportunity to understand The economic importance of gymnosperms
	<b>BOT 502: Ecology &amp; Conservation</b>	CO1. To understand the concept of ecology. CO2. Students will understand and explain life of earth, environmental consequences CO3. To understand the Structure of populations, Ecological communities and different Ecosystems. CO4. To study of different types ecological Adaptations of plants. CO5. To clarify difference ecosystem and ecology. CO6. Student can understand the ecological Pyramids, environmental parameters. CO7. To know about hydrophytes, xerophytes, Epiphytes halophytes etc. CO8. To understand the concept of conservation.
	<b>BOT- 521 – (Elective B) Plant Pathology-I</b>	CO1. To understand the different diseases of plants. CO2. Etiology of different crop plants. CO2. To know the symptoms and control measures of plant diseases.
	<b>BOT- 522 – (Elective B) Plant Pathology-II</b>	CO1. To understand plant diseases and its Management. CO2. To understand control measures and remedy for Diseased plants. CO3. To inculcate and know the host pathogen Relationship. CO4. To know about microspores leads to disease Cycle. CO5. Students can understand the factors causing diseases.
M.Sc.II	<b>SEMESTER-IV</b> <b>BOT 503</b> <b>Bioprospecting And Plant Resource Utilization</b>	CO1. To spread the knowledge of tribal peoples of plant resources and their utilization to common man. CO2. To understand the remedy and medicinal properties of plants.

	<b>BOT 504 Genetic Engineering and Bioinformatics</b>	CO1. To understand concept of genetic engineering. CO2. To know the details of vector plasmids and cloning vehicles.
	<b>BOT 523 (Elective B) Plant Pathology – III</b>	CO1.To identifies the fungal spores. CO2. To understand the diseases caused by plants CO5. To clarify and identify host of diseased plants and their causal organism.
	<b>BOT 524 (Elective B) Plant Pathology – IV</b>	CO1.To understand plant diseases. CO2. To understand control measures and remedy for Crop plants. CO3. To inculcate and know the host pathogen Relationship. CO4.To knows about insecticides, pesticides, Herbicides and weedicides. CO5. Students can understand the sporic Development of plants. CO6. To understand medicinal properties plants and Their utilization on curing some diseases. CO7. To understand and resolve the diseases of crop plants

## DEPARTMENT OF ZOOLOGY

### **Program Outcome**

PO1. Apply the knowledge of various branches of Zoology and Life Science useful both for a graduate course and for higher studies.

PO2. Increase positive attitude towards, animal conservation and sustainable development among the students

PO3. Recognize the unity of life with the rich diversity of organisms and their ecological and evolutionary significance

PO4. Achieve basic skills in the observation and study of nature, animals, experimental techniques, methods of analysis and scientific investigation, used in biology special in zoology

### **Program specific Outcomes:**

PSO1. Identify and list out common beneficial and harmful animals

PSO2. Explain different biochemical, physiological changes in animals and human bodies

PSO3. Understand the impact of environment on our bodies

PSO4. Familiarize various genetic abnormalities, knows the importance of genetic engineering

PSO5. Recognize the importance of nature

PSO6. Explain the role and impact of different environmental conservation programmes

PSO7. Identify various potential risk factors to health of humans

PSO8. Recognize the importance of genetic engineering

PSO9. Apply tools of information technology for all activities related to zoology



## B. Sc. I Year Zoology

Semester	Course Code	Paper No.	Title of Paper	Course outcome
I	ZOL-101	Paper – I	Protozoa to Annelida	<ol style="list-style-type: none"> <li>1. The student will be able to understand unicellular, multicellular, invertebrate animals</li> <li>2. The student understands the importance of classification of animals</li> <li>3. The student will be able to classify and identify the animals.</li> <li>4. The student knows his role in nature as caretaker conservator and promoter of life which he has achieved by learning, observing and understanding life</li> </ol>
	ZOL-102	Paper – II	Cell Biology	<ol style="list-style-type: none"> <li>1. Students able to know the details about life and functions at cellular level.</li> <li>2. Students will be able to understand the different cell organelles its structure and detail functions.</li> <li>3. To describe differences between prokaryotic and Eukaryotic cells.</li> <li>4. Understand cell cycles and its regulation</li> <li>5. Students get the thorough information of various molecular and cellular techniques used in the study of cell biology</li> </ol>
	ZOL-103	Paper – III	Practical based Upon Paper I & II	<ol style="list-style-type: none"> <li>1. Familiar with Scientific method</li> <li>2. Recognize molecular biology techniques</li> <li>3. Ability to observe chromosomal arrangements during cell division</li> </ol>

II	ZOL-201	Paper – IV	Arthropoda to Echinodermata And Protochordata	1.To develop good observation skills 2. To understand general characters and metamorphosis
	ZOL-202	Paper – V	Genetics - I	1.Student will be able to know the importance of genetics 2. Understand the principles of Mendelian inheritance.  2.To identify chromosomal mutations and in borne errors of metabolism 3.Understand various genetic abnormalities
	ZOL-203	Paper – VI	Practical based upon Paper IV & V	

### B. Sc. II Year Zoology

Semester	Course Code	Paper No.	Title of Paper	Course outcome
III	ZOL-301	Paper – VII	Vertebrate Zoology	1.Students able to understand the diversity in form, morphology and habitat of vertebrates 2. Students can describe general characteristics and classification of different classes of vertebrates
	ZOL-302	Paper – VIII	Genetics- II	1.Differentiate Classical Genetics and Molecular Genetics 2.Relate the conventional and molecular methods for gene manipulation in other biological systems.
	ZOL-303	Paper – IX	Practical based	1. Introduced with Scientific method

			upon Paper VII	2. Understand the importance of conservation 3. Demonstrate various types of Eggs Familiar with various stages involved in the developing embryo 4. Understand the initial developmental procedures involved in chick
	ZOL-304	Paper – X	Practical based upon Paper VIII	Distinguish different chromosomal aberrations in man
IV	ZOL-401	Paper – XI	Animal Physiology (Special Emphasis on Mammals)	1. Recognize the function of various systems 2. Understand the importance of biological components 3. Students are able to understand various biochemical changes
	ZOL-402	Paper – XII	Biochemistry & Endocrinology	Understand knowledge of conventional biotechnological procedures
	ZOL-403	Paper – XIII	Practical based upon Paper XI	Ability to perform routine blood analysis. Learn clinical procedures for blood & urine analysis
	ZOL-404	Paper – XIV	Practical based upon Paper XII	Demonstrate basic principles in physiology Develop skill in simple biochemical laboratory procedures

### B. Sc. III Year Zoology

Semester	Course Code	Paper No.	Title of Paper	
V	ZOL-501	Paper – XV	Ecology	1. Understand the evolutionary and functional basis of animal ecology

				<p>2. To identify Zoogeographical regions with their climatic and faunal Peculiarities</p> <p>3. Ability to construct food web</p> <p>4. To understand ecological adaptations</p> <p>5. To introduce methods of wildlife and conservation and endangered species</p>
	ZOL-502	Paper – XVI (Elective)	Fishery sciences –I	<p>1. Students will understand the importance and scope of fishery</p> <p>2. Students get the knowledge of different types of fishery</p> <p>3. Understand the environmental impacts of aquaculture</p> <p>4. Students get the knowledge of economic value of fishery industry</p> <p>5. Students achieve the skill of culture breeding and marketing techniques of common indigenous fishes</p>
	ZOL-503	Paper – XVII	Practical based upon Paper XV	<p>1. Engage in field-based activities to understand better the theoretical aspects taught besides learning techniques for collecting data in the field.</p> <p>2. Ability to Estimate water parameters</p> <p>3. Ability to identify soil parameters</p>
	ZOL-504	Paper – XVIII	Practical based upon Paper XVI	<p>1. Students are able to identify the major fishes</p> <p>2. Students get the knowledge of food value of fishes</p> <p>3. Develop <i>employable skills</i> in freshwater biological water quality analysis</p>
VI	ZOL-601	Paper – XIX	Evolution	<p>1. Students will be able to apply the evidence of comparative biology to understand how the theory of evolution offers the only scientific explanation for</p>

				<p>the unity and diversity of life on earth.</p> <p>2. Students will be able to use specific examples to describe how descent with modification has shaped animal morphology, physiology, life history, and behavior.</p> <p>3.Explain causes and role of extinction in evolution</p> <p>4.Identify the contributions of various evolutionists.</p> <p>5.Recognize that very similar mechanisms are used in very diverse organisms; and development is controlled through molecular changes resulting in variation</p>
ZOL-602	Paper – XX	A- Fishery sciences –II		<p>1.Students able to understand the fish culture systems</p> <p>2.Students are introduced to types of diseases of fishes</p> <p>3. Students get the knowledge of fish technology, processing and preservation etc.</p> <p>4. Students acquire the fishing techniques</p>
ZOL-603	Paper – XXI	Practical based upon Paper XIX		<p>1.Identify the contributions of various evolutionists.</p>
ZOL-604	Paper – XXII	Practical based upon Paper XX		<p>1.Students learn the importance of culturable fishes</p> <p>2.Students acquire the skill to identify various diseases of fishes</p> <p>3. Students get the technique of artificial fish breeding</p> <p>4. Students able to identify various fishing tools</p>