Vasantrao Naik Shikshan Prasarak Mandal, Aurangabad

# Vasantrao Naik Mahavidyalaya

AIRPORT ROAD, AURANGABAD - 431 003.
NAAC Reaccredited 'B++' Grade

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Principal
Prof.(Dr.) Anand V. Chaudhary

Ref. No. / VNMA / 2022-23

Date : 02/03/2023

## INTERNAL QUALITY ASSURANCE CELL

## 2.6 Student Performance and Learning Outcome

# Programme Outcomes (PO's), Course Outcomes (CO's) and Program Specific Outcome (PSO's)

PRINCIPAL
Vasantrao Naik Mahavidyalaya
Aurangabad

VASANTRAO NAIK SHIKSHAN PRASARAK MANDAL'S

# VASANTRAO NAIK MAHAVIDYALAYA

**Airport Road,**

**Aurangabad - 431003**

Program Outcome,

Program Specific Outcome

and

Course Outcome

PRINCIPAL
Vasantrao Naik Mahavidyalaya
Aurangabad

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# FACULTY OF ARTS

## Programme Outcome

**PO1: Conceptualization of basic Knowledge-** Through Environmental Science, Gender Equity, Indian Constitution and Computer Knowledge the program cultivates and nurtures the students into a responsible citizen. It also memorizes an idea of the behaviour of Indian and world economy, Indian Culture and history (BL1)

**PO2: To acquaint with the Social and Economic Issues -** The program explains various interdisciplinary fields using sociological knowledge, discusses various forms of social inequality and respect social diversity. Student identifies the role of theory and methodology in the production of historical knowledge (BL2)

**PO3: Social and Ethical Values -** The program promotes ethical and value - based learning, inculcates global competencies, imparts creativity and encourages entrepreneurship (BL3)

**PO4: Economical Intelligence -** The program enables the student to relate the theories of exchange among rational economics agents in variant market structure (BL4)

**PO5: Proficiency** – The program enables student to evaluate and recognize different interdisciplinary sections and achieve expertise (BL5)

**PO6 : Communication and Linguistic Skills** – Students will be able to develop communication skills and linguistic skills to acquire competency, acquire practical and technical proficiency

It will develop their vocabulary, writing skills and encourage their scientific temper through inspiring prose and poetry and language (BL5)

# B.A. (ENGLISH


## Course Outcome

**Paper No. II Compulsory English Learning Language Skills –I**
**CO1:** To acquaint students to Prose, poetry and grammar (literary genres )

**Paper No. II Written and Spoken Communication**
**CO1:** To develop four language skills

**Paper No. I B.A. optional The Structure of English**
**CO1:** To provide the students advanced knowledge of speech articulation and use of language

**Paper No.V optional Reading Literature**
**CO1:** To create awareness about literary genres

**Paper No. IV Comp. English Learning Language Skills**
**CO1:** To develop writing and literary skills

**Paper No. III & IV English for Entrepreneurs**
**CO1:** To help students achieve excellent business communication skills for better employment.
**CO2:** To prepare students to acquire writing skills (Business English) and prepare them for job opportunities.
**CO3:** To inspire them for entrepreneurship

**Paper No.V optional - Literature in English 1550-1750**
**CO1:** To enable the students to read and appreciate various forms of literature of the period and critically interact with them from different perspective.
**CO2:** To introduce the students to appropriate literary strategies to read literature.

**Paper No.VI optional - Literature in English 1750-1900**
**CO1:** To enable the students to read and appreciate various forms of literature of the period and critically interact with them from different perspective

**Paper No.IX & XIII optional Twentieth century English Literature**
**CO1:** To make the students understand how the Twentieth literature of the modern period relates to the important trends of the period.

**Paper No.X & XIV optional Introduction to Literary Criticism**
**CO1:** To develop critical attitude to analyse literature. To make the students competent as critics

**Paper No.XIB optional Indian Writing in English**
**CO1:** To differentiate the contexts of British and Indian Writing in English.
**CO2:** To study pattern of Indian writing and understand Indian mode of thinking.

**CO3:** To achieve perfection in writing skills

**Paper No.XII & XVI optional Project work on History of English Literature**
**CO1:** Study of historical knowledge of English literature

**Choice Based Credit System (CBCS) Curriculum w .e. f- 2021-22 and 2022-23**
**Dr. Babasaheb Ambedkar Marathwada University, Aurangabad**

**B.A./B.Com./B.Sc. First Year Compulsory English**
**CO1:**To make the students acquainted with the language patterns.
**CO2:**To develop vocabulary of the students.
**CO3:**To make the students competent and confident in grammar and spoken as well as written skills.
**CO4:**To install application based skills of the language .
**CO5:** To make the students acquainted with thought provoking prose and poetry in order to make them responsible citizens..
**CO6:** To develop business English skills

**B.A. First year optional I to IV**
**CO1:**To introduce to the students the basic concepts of literature and literary forms.
**CO2:**To study and understand social and cultural traits through literary works.
**CO3:**.To develop among the students creative and artistic bent of mind.
**CO4:**To develop their taste for literature.

**B.A./B.Com./B.Sc. Second Year Compulsory English**
**CO1:** To develop linguistic skills like reading, writing, spoken and listening .
**CO2:** To enhance communicative ability level
**CO3:** To install application based skills of the language
**CO4:**To make the students acquainted with thought provoking prose and poetry in order to make them responsible citizens..
**CO5:** To develop business English skills

**B.A. Second Year Optional V to VIII**
**CO1:**To make the students aware of the literary tradition.
**CO2:**To study and understand social and diverse cultural traits through literary works.
**CO3:**To develop among the students creative and artistic bent of mind.
**CO4:**To develop their taste for literature.
**CO5:**To introduce the students post colonial situation through current academic scene of the world.
**CO6:**To make the students aware of the current developments in literatures and discourse.

# B.A. (HINDI)

## Course outcome

**Paper code Hin –AECC-1 , AECC-2 Sem 1/2 (सामान्य हिंदी भाग 01,02 )**

**CO1:**साहित्य संवेदना एवं अस्वादन का विकास कराना

**CO2:**हिंदी कहानी की रसास्वादन क्षमता का विकास कराना

**CO3:**हिंदी कविता की रसास्वादन क्षमता का विकास कराना

**CO4:**प्रयोजनमूलक भाषा का अध्ययन एवं प्रयोग की क्षमता का विकास कराना

**CO5:**हिंदी संप्रेषण की क्षमता का विकास कराना

**CO5:**भाषा कौशल का विकास कराना

**CO6:**पत्रलेखन की क्षमता का विकास कराना

**Sem 1/2 (हिंदी साहित्य का साहित्य, कथा साहित्य 01,02) Paper code : Hin CC-1A, Hin CC- 1C**

**CO1:**हिंदी साहित्य की लेखन परंपरा से परिचय कराना

**CO2:**साहित्य और युगबोध के संबंधों का अध्ययन कराना

**CO3:**साहित्य का अस्वादन व एवं अभिरुचि का परिसंस्कार कराना

**CO4:**जीवन मूल्यों की स्थापना कराना

**CO5:**समाज, राजनीति, परिवेश को समझने योग्य बनना

**CO6:**चिंतन क्षमता का विकास कराना

**CO7:**कथा लेखन क्षमता का विकास करना

**Sem 1/2 (आधुनिक कविता, मध्ययुगीन कवित 03, 04)**
**Paper code: Hin CC- 1B, Hin CC- 2C**

**CO1:**साहित्य का अस्वादन व एवं अभिरुचि का परिसंस्कार कराना

**CO2:**जीवन मूल्यों की स्थापना कराना

**CO3:**हिंदी कविता विधा से परिचय कराना

**CO4:**चिंतन क्षमता का विकास करना

**CO5:**नैतिक मूल्यों के संस्कार कराना

**CO6:**कविता आस्वादन एवं सृजन क्षमता का विकास कराना

**CO7:**संत कव्य की परंपरासे परिचय कराना

**Sem 3/4 (सामान्य हिंदी भाग 3, 4) Paper code : Hin -133, Hin -134**

**CO1:**प्रयोजन मूलक भाषा का अध्ययन एवं प्रयोग क्षमता का विकास कराना

**CO2:**हिंदी संप्रेषण की क्षमता का विकास कराना

**CO4:**भाषा कौशल का विकास कराना

CO5:अत्याधुनिक इलेक्ट्रॉनिक मध्यमो का परिचय कराना
CO6:भाषा प्राद्योगिकी, विज्ञापन कला व ज्ञान कराना
CO7:माध्यमोपयोगी हिंदी का अध्ययन कराना
CO8जनसंचार माध्यमों का अध्ययन कराना
CO9:अनुवाद प्रक्रिया का अध्ययन कराना


**Sem 3/4 (कथेत्तर गद्य साहित्य, आधुनिक हिंदी कविता 05, 07)**
**Paper code: Hin-05-13, Hin-07-13**
CO1:साहित्य अस्वादन अभिरुचि का परिसंस्कर कराना
CO2:जीवन मूल्यों की स्थापना कराना
CO3:हिंदी कथेत्तर गद्य संवेदना की परंपरा से परिचय कराना
CO4:हिंदी यात्रा साहित्य से परिचय कराना
CO5:हिंदी आत्मकथा साहित्य से परिचय कराना
CO6:आधुनिक हिंदी की विविध काव्य धाराओं से परिचय कराना
CO7:काव्य सृजन की क्षमता का विकास कराना
CO8:काव्यास्वादन क्षमता का विकास कराना

**Sem 3/4 (प्रयोजनमुलक हिंदी 06, 08) Paper code : Hin -0-13, Hin -03-13**
CO1:प्रयोजनमूलक भाषा का अध्ययन एवं प्रयोग क्षमता का विकास कराना
CO2:हिंदी संप्रेषण की क्षमता का विकास कराना
CO3:भाषा कौशल का विकास कराना
CO4:प्रयोजनमूलक हिंदी के प्रयोग की क्षमता का निर्माण कराना
CO5:देवनागरी लिपि से परिचय कराना
CO6:प्रयोजनमूलक हिंदी के अधुनातन आयामो से परिचय कराना
CO7:राजभाषा हिंदी के विविध पहलुओं से परिचय कराना
CO8:अनुवादक की क्षमता का विकास करना कराना

**Sem 5/6, (हिंदी साहित्य का इतिहास 10, 14) Paper code : Hin -09-13, Hin -13-13**
CO1:जीवन मूल्यो के प्रती आस्था निर्माण कराना
CO2:हिंदी साहित्य की परंपरा से परिचय कराना
CO3:साहित्य आस्वादन अभिरुचि का परिसंस्कार कराना
CO4:हिंदी साहित्य की लेखन परंपरा से परिचय कराना
CO5:नैतिक मूल्यों के संस्कार कराना
CO6:हिंदी साहित्य की लेखन क्षमता का विकास कराना
CO7:हिंदी साहित्य के विविध कालो से परिचय कराना

**Sem 5/6 (प्रादेशिक भाषा साहित्य 09, 13 ) Paper code : Hin -10-13 , Hin -14-13**

**CO1:**जीवन मूल्यो के प्रती आस्था निर्माण कराना

**CO2:**साहित्य अस्वादन अभिरुचि का परिसंस्कर कराना

**CO3:**प्रादेशिक भाषा साहित्य से परिचय कराना

**CO4:**प्रादेशिक भाषा साहित्य के प्रति रुचि निर्माण करना कराना

**CO5:**मराठी कहानी साहित्य से परिचय कराना

**CO6:**अनुवादक की क्षमता का विकास कराना

**Sem 5/6 (साहित्यशास्त्र 11,15 ) Paper code : Hin -11-13, Hin -15-13**

**CO1:**साहित्य चिंतन का अध्ययन कराना

**CO2:**साहित्यालोचन क्षमता का विकास कराना

**CO3:**शब्द शक्ति से परिचय कराना

**CO4:**आलोचना के भेदो से परिचय कराना

**CO5:**साहित्य के सिद्धान्तो से परिचय कराना

**Sem 5/6 (प्रकल्प लेखन 12,16 ) Paper code : Hin -12-13, Hin -16-13**

**CO1:**जीवन मूल्यो के प्रति आस्था निर्माण कराना

**CO2:**साहित्य अस्वादन अभिरुचि का परिसंस्कर कराना

**CO3:**नैतिक मूल्यों के संस्कार कराना

**CO4:**प्रकल्प लेखन कौशल का विकास

**CO5:**अनुसंधान सिद्धांतो तथा अनुसंधान क्षमता के संस्कार कराना

**CO6:**चिंतन क्षमता का विकास कराना

**CO7:**लेखन कौशल के परिसंस्कार कराना

# B.A. (Marathi)

## Course Outcome

**प्रोग्राम कोड - MAR 001/MAR002 कोर्स-बी.ए**
**प्रोग्राम गद्य पद्य उपयोजित मराठी सत्र १/२ पेपर क्रमांक १/२**
**CO1:**भाषिक आकलन आविष्करण
**CO2:**पायाभूत वाङ्मयीन व भाषिक ज्ञान उपलब्ध करून देणे.
**CO3:**वाचन, सस्कृती वृध्दंगत करणे.
**CO4:**वाङ्मयाचा आशय समजावून घेणे.
**CO5:**सामाजिक सांस्कृतीक मुल्यांचे आकलन करून देणे.
**CO6:**व्यावाहारिक ज्ञान तंत्रज्ञानाचा व्यवहारातील उपयोग समजावणे.

**प्रोग्राम कोड - MAR 003/MAR004 कोर्स-बी.ए**
**प्रोग्राम -गद्य पद्य व उपयोजित मराठी सत्र ३/४ पेपर**
**कोर्स आऊटकम**
**CO1:** भाषिक आकलन आविष्करण समृध्द करणे.
**CO2:** व्यावहारिक भाषिक कौशल्याचे ज्ञान करून देणे.
**CO3:** गद्य पद्य वाङ्मयाचा आशय समजावणे.
**CO4:** दैनदिन भाषा वापर, साहित्यातील उपयोग व कार्यालयीन उपयोजनाचे आकलन करून देणे.

**प्रोग्राम कोड MAR 001/MAR002 कोर्स -बी.एस्सी**
**प्रोग्राम -गद्य पद्य व उपयोजित मराठी सत्र १/२ पेपर क्रमांक १/२**
**कोर्स आऊटकम**
**CO1:** भाषिक आकलन आविष्करण समृध्द करणे.
**CO2:** पायाभूत वाङ्मयीन व भाषिक ज्ञान उपलब्ध करून देणे.
**CO3:** वाचन संस्कृती वृध्दिंगत करणे.
**CO4:** वाङ्मयाचा आशय समजावून देणे.
**CO5:**सामाजिक सांस्कृतिक मुल्यांचे आकलन करून देणे.
**CO6:**व्यावहारिक ज्ञान तंत्रज्ञानाचा व्यवहारातील उपयोग समजावणे.

**प्रोग्राम कोड MAR 003/MAR004 कोर्स -बी.एस्सी**
**प्रोग्राम -गद्य पद्य व उपयोजित मराठी**
**सत्र ३/४ पेपर क्रमांक ३/४**
**कोर्स आऊटकम**
**CO1:**भाषिक आकलन आविष्करण समृध्द करणे.
**CO2:**व्यावहारिक भाषिक कौशल्याचे ज्ञान करून देणे.
**CO3:**गद्य पद्य वाङ्मयाचा आशय समजावणे.
**CO4:**दैनदिन भाषा वापर, साहित्यातील उपयोग व कार्यालयीन उपयोजनाचे आकलन करून देणे.

**कोर्स आऊटकम**

**CO1:**भाषिक आकलन आविष्करण समृध्द करणे.

**CO2:**पायाभूत वाङ्मयीन व भाषिक ज्ञान उपलब्ध करूण देणे.

**CO3:**वाचन संस्कृती वृध्दिंगत करणे.

**CO4:**वाङ्मयाचा आशय समजावून देणे.

**CO5:**सामाजिक सांस्कृतिक मुल्यांचे आकलन करून देणे.

**CO6:**व्यावहारिक ज्ञान तंत्रज्ञानाचा व्यवहारातील उपयोग समजावणे.

**प्रोग्राम कोड MAR C01/MARC02 कोर्स -बी. कॉम**

**कोर्स आऊटकम**

**CO1:**वाणिज्य व्यवसायात मराठी भाषेचे आकलन करूण देणे.

**CO2:**कार्यालयीन, व्यवसायिक कामकाजात होणारा वापर गरज व स्वरूप विषयांची माहिती करूण देणे.

**CO3:**व्यवसायाच्या माध्यमातून मराठी भाषेला स्थान मिळवून देणे.

**CO4:**वाचनप संस्कृतीच्या माध्यमातून व्यवसायाला पूरक व मूलभूत सहाय्य करणे.

**प्रोग्राम कोड MAR 001/MAR 102 कोर्स -बी. ए**

**प्रोग्राम - काव्यात्म साहित्य/ नाट्यात्म साहित्य**

**सत्र १ पेपर क्रमांक १/२**

**कोर्स आऊटकम**

**CO1:**काव्य वाङ्मयाचे आकलन - आस्वाद व रसग्रहण क्षमता विकसित करणे.

**CO2:**कावतील सामाजिक सांस्कृतीक मूल्य समजावणे.

**CO3:**नाट्य वाङ्मयाचा परिचय करूण देणे.

**CO4:**नाट्य वाङ्मयाचे आकलन आविष्करण समृध्द करणे.

**प्रोग्राम कोड MAR 103/MAR 104 कोर्स -बी. ए**

**प्रोग्राम - काव्यात्म साहित्य/ मुद्रित माध्यमांसाठी लेखन कौशल्य.**

**सत्र २ पेपर क्रमांक ३/४**

**कोर्स आऊटकम ;ब्वनतेम व्नजबवउमद्ध**

**CO1:**जून्या नव्या कलाकृती परिचय करूण देणे.

**CO2:** कथांश सिध्द करूण देणे.

**CO3:** माध्यमांच्या दृष्टिने अध्यायनाचा कक्षा रूंदावणे

**CO4:** माध्यमांसाठी लेखन तंत्र विकसित करणे.

**प्रोग्राम कोड MAR 105/MAR 106 कोर्स -बी. ए**

**प्रोग्राम** - आधुनिक मराठी वाङ्मयाचा इतिहास ;१८००.१९२०द्ध

**दृकश्राव्य माध्यमांसाठी लेखन कौशल्य सत्र ३पेपर क्रमांक ५/६**

**कोर्स आऊटकम;Course Outcome)**

**CO1:**वाङ्मयीन इतिहासाचा सर्वांगीण अभ्यास करणे.

**CO2:**सामाजिक, सांस्कृतीक पार्श्वभूमी, विचारप्रणाली व सामाजिक चळवळींचा वाङ्मयावरील प्रभाव अभ्यासणे.

**CO3:**वाङ्मय निर्मितीची पार्श्वभूमी, प्रेरणा,प्रवृत्ती, प्रवाह इत्यादींचा परिचय करूण देणे.

**CO4:**माध्यमांसाठी लेखन तंत्र विकसित करणे.

**CO5:**द्रकश्राव्य माध्यमांचे महत्व- विशेष पटवून देणे व लेखन कौशल्य विकसित करणे

**प्रोग्राम कोड MAR 107/MAR 108 कोर्स -बी. ,**
**प्रोग्राम** - आधुनिक मराठी वाङ्मयाचा इतिहास ;१८००.१९२०द्ध
**साहित्य प्रकारांतर आणि साहित्याचे माध्यमांतर**
**सत्र ४ पेपर क्रमांक ७/८**
**कोर्स आऊटकम; Course Outcome)**
**CO1:** वाङ्मयातील विविध प्रकारांचा तसेच ग्रंथकारांचा - परिचय करून देणे.
**CO2:** कालखंडातील सामाजिक, सास्कृतीक पार्श्वभूमी विचारप्रणालीचा परिचय करून घेणे.
**CO3:** साहित्य प्रकारांतराची संकल्पना स्पष्ट करणे.
**CO4:** माध्यम लेखनात साहित्याचे महत्व विशद करणे.
**CO5:** माध्यमांचा साहित्याशी असणारा अनुबंध उलगडून दाखवणे.

**प्रोग्राम कोड MAR 109 MAR 110 कोर्स -बी. ए**
**प्रोग्राम** - भारतीय साहित्य विचार / भाषाविज्ञान
**सत्र ५ पेपर क्रमांक ९/१०**
**कोर्स आऊटकम ;ब्वनतेम व्नजबवउमद्ध**
**CO1:** भारतीय साहित्य विचारांचा परिचय करून देणे.
**CO2:** साहित्य समीक्षणात्मक दृष्टिकोण विकसित करणे.
**CO3:** आधुनिक भाषविज्ञानाचा परिचय करून देणे.
**CO4:** भाषा निर्मितीसिध्दांत -वापर विकासाचा परिचय व अभ्यास करणे.

**प्रोग्राम कोड MAR 113 MAR 114 कोर्स -बी. ए**
**प्रोग्राम** - पाश्चात्य साहित्यविचार/व्याकरण व निबंधलेखन
**सत्र ६ पेपर क्रमांक १३/१४**
**कोर्स आऊटकम ;Course Outcome)**
**CO1:** पाश्चात्य साहित्य विचारवंतांचा परिचय देणे.
**CO2:** साहित्याचे प्रयोजन, निर्मिती प्रक्रिया, साहित्यातील विविध वादांचा परिचय करून देणे व समीक्षणात्मक लेखनाचा दृष्टिकोण विकसित करणे.
**CO3:** शास्त्रीय मराठी व्याकरणाचा परिचय व अभ्यास करणे.
**CO4:** शब्दसंग्रहाचा परिचय, व्याकरणातील मुलभूत संकल्पनांचा अभ्यास करणे.
**CO5:** वाङ्मयीन वैचारिक लेखनाचे कौशल्य विकसित करणे.

**प्रोग्राम कोड MAR 115 MAR 116 कोर्स -बी. ए**
**प्रोग्राम** - मध्ययुगीन वाङ्मयाचा इतिहास ;१६०१ ते १८१८द्ध / प्रकल्प कार्यभाग २
**सत्र ६ पेपर क्रमांक १५/१६**
**कोर्स आऊटकम ;Course Outcome)**
**CO1:** शिवकालीन - पेशवेकालीन सामाजिक, सांस्कृतीक धार्मिक स्थितीचा आढावा घेणे.
**CO2:** ग्रंथनिर्मितीच्या प्रेरणा व परिणामांचा अभ्यास करणे.
**CO3:** तत्कालीन ग्रंथ-ग्रंथकार-ग्रंथविशेषांचे आकलन करून घेणे.

**CO4:** भाषा साहित्य - साहित्येतिहास- साहित्यशास्त्र भाषाविज्ञान इत्यादी विषयांचे आकलन व लेखन कौशल्ये वाढविणे.

## Choice Based Credit System (CBCS) Curriculum w .e. f – 2022-23
## Dr. Babasaheb Ambedkar Marathwada University, Aurangabad

**कोर्स आऊटकम - COURSE OUTCOME**

**प्रोग्राम कोड- AECC-1 MAR / AECC-2 MAR कोर्स -बी.ए.CBCS**

**प्रोग्राम- भारतीय भाषा : मराठी (भाग-१-२)**

सत्र 1/2 पेपर क्रमांक 1/2

**CO1:**भाषिक आकलन आविष्करण समृद्ध करणे

**CO2:**पायाभूत वाङ्मयीन व भाषिक ज्ञान उपलब्ध करून देणे

**CO3:**वाचन संस्कृती वृद्धिंगत करणे

**CO4:**वाङ्.मयाचा आशय समजावून देणे

**CO5:**सामाजिक सांस्कृतिक मूल्यांचे आकलन करून देणे

**CO6:**व्यावहारिक ज्ञान तंत्रज्ञानाचा व्यवहारातील उपयोग समजावणे

**प्रोग्राम कोड- MAR 003/MAR004 कोर्स -बी.ए.**

**प्रोग्राम- गद्य पद्य व उपयोजित मराठी**

सत्र 3/4 पेपर क्रमांक 3/4

**CO1:**भाषिक आकलन आविष्करण समृद्ध करणे

**CO2:**व्यावहारिक भाषिक कौशल्याचे ज्ञान करून देणे

**CO3:**गद्य पद्य वाङ्.मयाचा आशय समजावणे

**CO4:**दैनंदिन भाषा वापर, साहित्यातील उपयोग व कार्यालयीन उपयोजनाचे आकलन करून देणे

**प्रोग्राम कोड- AECC -1 MAR /AECC-2 MAR कोर्स -बी.एस्सी.CBCS**

**प्रोग्राम- भारतीय भाषा मराठी (भाग-१-२)**

सत्र 1/2 पेपर क्रमांक 1/2

**CO1:**भाषिक आकलन आविष्करण समृद्ध करणे

**CO2:**पायाभूत वाङ्मयीन व भाषिक ज्ञान उपलब्ध करून देणे

**CO3:**वाचन संस्कृती वृद्धिंगत करणे

**CO4:**वाङ्.मयाचा आशय समजावून देणे

**CO5:**सामाजिक सांस्कृतिक मूल्यांचे आकलन करून देणे

**CO6:**व्यावहारिक ज्ञान तंत्रज्ञानाचा व्यवहारातील उपयोग समजावणे

**प्रोग्राम कोड- MAR 003/MAR004 कोर्स -बी.एस्सी.**

**प्रोग्राम- गद्य पद्य व उपयोजित मराठी**

सत्र 3/4 पेपर क्रमांक 3/4

**CO1:**भाषिक आकलन आविष्करण समृद्ध करणे
**CO2:**व्यावहारिक भाषिक कौशल्याचे ज्ञान करून देणे
**CO3:**गद्य पद्य वाङ्.मयाचा आशय समजावणे
**CO4:**दैनंदिन भाषा वापर, साहित्यातील उपयोग व कार्यालयीन उपयोजनाचे आकलन करून देणे

**प्रोग्राम कोड- MAR 001/MAR002 कोर्स -बी.कॉम.CBCS**
**प्रोग्राम- भारतीय भाषा मराठी (भाग १-२)**
सत्र 1/2 पेपर क्रमांक 1/2
**CO1:**भाषिक आकलन आविष्करण समृद्ध करणे
**CO2:**पायाभूत वाङ्मयीन व भाषिक ज्ञान उपलब्ध करून देणे
**CO3:**वाचन संस्कृती वृद्धिंगत करणे
**CO4:**वाङ्.मयाचा आशय समजावून देणे
**CO5:**सामाजिक सांस्कृतिक मूल्यांचे आकलन करून देणे
**CO6:**व्यावहारिक ज्ञान तंत्रज्ञानाचा व्यवहारातील उपयोग समजावणे

**प्रोग्राम कोड- MAR C01/MAR C02 कोर्स -बी.कॉम**
**प्रोग्राम-मराठी भाषा आणि वाणिज्य व्यवहार/व्यावसायिक मराठी आणि वाणिज्य व्यापार**
सत्र 3/4 पेपर क्रमांक 3/4
**CO1:**वाणिज्य व्यवसायात मराठी भाषेचे आकलन करून देणे
**CO2:**कार्यालयीन, व्यावसायिक, कामकाजात होणारा वापर ,गरज व स्वरुप विषयांची माहिती करून देणे
**CO3:**व्यवसायाच्या माध्यमातून मराठी भाषेला स्थान मिळवून देणे
**CO4:**वाचन संस्कृतीच्या माध्यमातून व्यवसायाला पूरक व मूलभूत साहय करणे

**प्रोग्राम कोड- CC-1A(1) / CC-1A(2) कोर्स -बी.ए.CBCS**
**प्रोग्राम- अभंग आविष्कार / निवडक कथा**
सत्र 1 पेपर क्रमांक 1/2
**CO1:** संत साहित्य प्रवाहाचा परिचय व अभंग प्रकाराचे स्वरुप विशेष लक्षात आणून देणे
**CO2:** निवडक अभंगाचा आशय-मूल्यविचार व उपयुक्तता स्पष्ट करणे
**CO3:**कथा वाङ्मयाचे स्वरुप-विशेष-परंपरा व प्रकारांचा परिचय देणे
**CO4:**निवडक कथेच्या माध्यमातून-आकलन-आस्वादाला चालना देऊन कलामूल्ये व जीवनमूल्यांचा परिचय देणे

**प्रोग्राम कोड- CC-1(B)3 / CC-1B(4) कोर्स -बी.ए.CBCS**
**प्रोग्राम- निवडक ललित गद्य / निवडक आधुनिक कविता**
सत्र 2 पेपर क्रमांक 3/4
**CO1:** ललित गद्याचे स्वरुप विशेष परंपरा व वेगळेपण समजावणे
**CO2:** लेखकाच्या तरल, संवेदनशील,विचारशील प्रवृत्तीचा शोध घेऊन विद्यार्थांना ललित लेखनाच्या सर्ज3शीलतेसाठी उद्युक्त करणे

**CO4:** काव्य वाङ्मयाचा परिचय व कवितेच्या काळातील स्पंदने ,कलावंताची संवेदनशीलता उलगडवून आकलन व आस्वाद क्षमता वाढीस लावणे

**CO5:** काव्याच्या माध्यमातून सामाजिक बांधिलकीचे मूल्ये रुजवून काव्य प्रवाह-प्रवृत्ती,अभिव्यक्ती यांचा परिचय करुन देणे


**प्रोग्राम कोड- MAR 105/MAR106 कोर्स -बी.ए.**

**प्रोग्राम- आधुनिक मराठी वाङ्मयाचा इतिहास (१८००-१९२०)दृकश्राव्य माध्यमांसाठी लेखन कौशल्ये**

सत्र 3 पेपर क्रमांक 5/6

**CO1:**वाङ्मयीन इतिहासाचा सर्वांगीण अभ्यास करणे

**CO2:**सामाजिक, सांस्कृतिक पार्श्वभूमी, विचारप्रणाली व सामाजिक चळवळींचा वाङ्.मयावरील प्रभाव अभ्यासाने

**CO3:**वाङ्मय निर्मितीची पार्श्वभूमी, प्रेरणा, प्रवृत्ती, प्रवाह इत्यादींचा परिचय करून देणे

**CO4:**माध्यमांसाठी लेखन तंत्र विकसित करणे

**CO5:**द्रुकश्राव्य माध्यमांचे महत्त्व -विशेष पटवून देणे व लेखन कौशल्य विकसित करणे

**प्रोग्राम कोड- MAR 107/MAR108 कोर्स -बी.ए**

**प्रोग्राम- आधुनिक मराठी वाङ्मयाचा इतिहास (१८००-१९२०)**

साहित्य प्रकारांतर आणि साहित्याचे माध्यमांतर

सत्र 4 पेपर क्रमांक 7/8

**CO1:**वाङ्.मयातील विविध प्रकारांचा तसेच ग्रंथकारांचा- ग्रंथाचा परिचय करून देणे

**CO2:**कालखंडातील सामाजिक, सांस्कृतिक पार्श्वभूमी, विचारप्रणालींचा परिचय करून घेणे

**CO3:**साहित्य प्रकारांतराची संकल्पना स्पष्ट करणे

**CO4:**माध्यम लेखनात साहित्याचे महत्त्व विशद करणे

**CO5:**माध्यमांचा साहित्याशी असणारा अनुबंध उलगडून दाखवणे

**प्रोग्राम कोड- MAR 109/MAR110 कोर्स -बी.ए.**

**प्रोग्राम- भारतीय साहित्य विचार / भाषाविज्ञान**

सत्र 5 पेपर क्रमांक 9/10

**CO1:**भारतीय साहित्य विचारांचा परिचय करून देणे

**CO2:**साहित्य समीक्षणात्मक दृष्टिकोन विकसित करणे

**CO3:**आधुनिक भाषाविज्ञानाचा परिचय करून देणे

**CO4:**भाषा निर्मितीसिद्धांत -वापर- विकासाचा परिचय व अभ्यास करणे

**प्रोग्राम कोड- MAR 111/MAR112 कोर्स -बी.ए.**

**प्रोग्राम- मध्ययुगीन मराठी वाङ्मयाचा इतिहास (प्रारंभ -१६००)/ प्रकल्प कार्य भाग -१**

सत्र 5 पेपर क्रमांक 11/12

**CO1:**यादवकालीन सामाजिक, सांस्कृतिक, धार्मिक स्थिती गतीचा परिचय देणे

**CO2:**ग्रंथनिर्मितीच्या प्रेरणा- परिणाम समजावणे, ग्रंथकार व ग्रंथ विशेष यांचे आकलन करून देणे.

**CO3:**संशोधनात्मक तसेच समीक्षणात्मक दृष्टीचा विकास करणे

**CO4:**भाषा, साहित्य, साहित्येतिहास, साहित्यशास्त्र, भाषाविज्ञान इत्यादी विषयांचे आकलन व भाषिक लेखन कौशल्य विकसित करणे


**प्रोग्राम कोड- MAR 113/MAR114 कोर्स -बी.ए.**

**प्रोग्राम- पाश्चात्य साहित्यविचार / व्याकरण व निबंधलेखन**

सत्र 6 पेपर क्रमांक 13/14

**CO1:**पाश्चात्य साहित्य विचारवंतांचा परिचय देणे

**CO2:**साहित्याचे प्रयोजन, निर्मिती प्रक्रिया, साहित्यातील विविध वादांचा परिचय करून देणे व समीक्षणात्मक लेखनाचा दृष्टिकोन विकसित करणे

**CO3:**शास्त्रीय मराठी व्याकरणाचा परिचय व अभ्यास करणे

**CO4:**शब्दसंग्रहाचा परिचय, व्याकरणातील मूलभूत संकल्पनांचा अभ्यास करणे

**CO5:**वाङ्मयीन -वैचारिक लेखनाचे कौशल्य विकसित करणे

**प्रोग्राम कोड- MAR 115/MAR116 कोर्स -बी.ए.**

**प्रोग्राम- मध्ययुगीन मराठी वाङ्मयाचा इतिहास ( १६०१-१८१८) / प्रकल्प कार्य भाग-२**

सत्र 6 पेपर क्रमांक 15/16

**CO1:**शिवकालीन -पेशवेकालीन सामाजिक, सांस्कृतिक धार्मिक स्थितीचा आढावा घेणे ग्रंथनिर्मितीच्या प्रेरणा व परिणामांचा अभ्यास करणे

**CO2:**तत्कालीन ग्रंथ- ग्रंथकार -ग्रंथविशेषांचे आकलन करून घेणे

**CO3:**संशोधनात्मक, समीक्षात्मक लेखनाचा दृष्टिकोन -कौशल्य विकसित करणे

**CO4:**भाषा- साहित्य- साहित्येतिहास- साहित्यशास्त्र -भाषाविज्ञान इत्यादी विषयांचे आकलन व लेखन कौशल्ये वाढविणे

# B.A. (PUBLIC ADMINISTRATION)


## Course Outcomes

**Paper No. PUB-1: Principles and Concepts of Public Administration**

**CO1:** Explain basic concept of Public Administration, Meaning, Nature and Scope of Public Administration.
**CO2:** Describe the types of Administration.
**CO3:** Explain basic concept of Organization, its Meaning, Bases, Types, of Organization.
**CO4**: Describe the Principles of organization.
**CO5**: Explain important concepts of Public Administration.

**Paper No. PUB-2: Public Administration In India**
**CO1**: Focus on evolution of public administration set□up in India.
**CO2**: Explain Constitutional Framework of India.
**CO3**: Explain the public administration set□up in India.
**CO4**: Draw the structure of public administration in India i.e. Union Government, Union Legislature and Union Judiciary.
**CO5**: Describe Statutory and non statutory bodies.

**Paper No. PUB -3: Maharashtra Administration**
**CO1**: Explain formation of Maharashtra State.
**CO2**: Describe silent features of Maharashtra Administration.
**CO3**: Explain the Maharashtra administration set□up.
**CO4**: Draw the structure of Maharashtra administration i.e. State Executive , State Legislature and State Judiciary
**CO5**: Describe Statutory and non statutory bodies.

**Paper No. PUB-4: District Administration**
**CO1**: Focus on evolution and Importance of District Administration in India.
**CO2**: Explain Role, Power and Functions of District Collector.
**CO3**: Describe Law and Order set□up.
**CO4**: Describe key posts in District Administration.
**CO5**: Describe Statutory and non statutory bodies.

**Paper No. PUB -5 Personnel Administration**
**CO1:** Explain Importance and aspect of Personnel Administration.
**CO2:** Explain Public Services in India i.e. All India Services, Central and State Services.
**CO3:** Describe Training and Training Instructions.
**CO4:** Describe problems of Personnel Administration and grievance redressal setup in India.

**Paper No. PUB -6 Panchyatraj and Rural Development**
**CO1:** Focus on evolution of Panchyatraj in India.
**CO2:** Explain Constitutional Framework for Panchyatraj in India.

**CO3:** Explain the salient features of 73 rd Constitutional Amendment.
**CO4:** Explain the Panchyatraj System in Maharashtra.
**CO5:** Analyze role of Panchyatraj and rural development agency in Rural Development.

**Paper No. PUB -7 Financial Administration**
**CO1:** Explain importance of Financial Administration.
**CO2:** Explain concept and principles of good budgeting.
**CO3:** Describe monitoring system of budgetary process.
**CO4:** Describe the Principles of organization.
**CO5:** Explain important concepts of Public Administration.

**Paper No. PUB -8 Urban Local Self Government and Urban Development**
**CO1:** Explain concept of Urban Development.
**CO2:** Explain Constitutional Framework for Urban Local Self Government in India.
**CO3:** Explain the salient features of 74 rd Constitutional Amendment.
**CO4:** Explain the Urban Local Self Government institutions.
**CO5:** Analyze role of Urban Development Agencies in urban development.

**Paper No. PUB -9 Human Resource Development**
**CO1:** Explain the importance of human resources and their effective management in organizations
**CO2:** Explain role of various institutions in Human Resource Development. .
**CO3:** Analyze Means of Human Resource Development.
**CO4:** Demonstrate a basic understanding of human resource planning and needs.

**Paper No. PUB -10 Educational Administration in India**
**CO1:** Explain concept and objective of Education .
**CO2:** Describe historical background of Education.
**CO3:** Explain role of various institutions in higher education.
**CO4:** Analyze challenges before higher education in India and suggest the remedies and solution in resolving the issues.
**CO5:** Explain impact of Globalization on Higher Education.

**Paper No. PUB -11 Administrative Thinkers.**
**CO1:** Explain the administrative philosophies by different administrative thinkers.
**CO2:** Analyze the principle and theories for the different organizational set-up.
**CO3:** Apply the principles and philosophies in the administration of organization.
**CO4:** Compare the philosophies of administrative thinkers in India and overseas.
**CO5:** Describe the growth of public administration based on the Indian philosophical thoughts.

**Paper No. PUB -12 Public Policy and Development.**

**CO1:** Explain the significance and types of public policy.
**CO2:** Describe Public Policy Formation and Implementation Process.
**CO3:** Focus on some Public Policies in India.
**CO4:** Analyze challenges before Development and suggest the remedies and solution in resolving the issues.

**Paper No. PUB-13 Health Administration in India.**

**CO1:** Explain concept of health care administration.
**CO2:** Explain Status of Indian Health Care System.
**CO3:** Describe role of Health and Family Welfare Ministry.
**CO4:** Explain aims and importance of National Rural Health Mission.
**CO5:** Analyze challenges before Indian Health Care System and suggest the remedies and solution in resolving the issues.

**Paper No. PUB-14 Recent Trends in Public Administration and Importance Laws**

**CO1:** Explain recent trends in public administration.
**CO2:** Describe impact of recent trends on public administration.
**CO3:** Explain importance laws of administration.

**Paper No. PUB-15 Project Work.**

**CO1:** Enlist and introduced to students issues in India administration
**CO2:** Analyze the causes of issues in India administration.
**CO3:** Developed research attitude among the students.
**CO4:** Describe the major parameters affecting the administration and society.
**CO5:** Describe the new devices in Administration as to resolve the issues.
**CO6:** Suggest the remedies and solution in resolving the issues through project.

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**Paper No. PUB-1 : Introduction to Public Administration - I**

**CO1:** Demonstrate Broad understanding of public administration including principles of management and organization.
**CO2:** Identify the core mechanism of Public Administration
**CO3:** Explain the development of discipline.
**CO4:** Illustrate knowledge of Organization Theory.
**CO5:** Understanding the working constitution –legal aspects and manifestations of administration ( IAS, IPS, NGOs, research Think Tanks, Project Managers, government consultancy, Policy Administrators, Policy Analysts, etc)

**Paper No. PUB-2 Indian Administration I**

**CO1:** Explain the development of Indian Administration.
**CO2:** Acquire broad understanding of Constitutional Values, Rights and Duties.
**CO3:** Identify the Institutional mechanism of Indian Administration at Union level.
**CO4:** Illustrate knowledge of Legislature, Executive and Judiciary's working.

**Paper No. PUB -3 Introduction to Public Administration - II**

**CO1:** Acquire an understanding of the features and principles of organization.
**CO2:** Identify and understand the principles of Administrative Organization and Agencies
**CO3:** Familiarize with administrative behavior.

**Paper No. PUB-4 Indian Administration II**

**CO1:** Understanding the Constitutional Institution viz- Election Commission of India and Union Public Service Commission.
**CO2:** Acquire broad understanding of Federal System.
**CO3:** Identify the Institutional mechanism of Indian Administration at Union Level.
**CO4:** Acquire knowledge of Legislature, Executive and Judiciary's working
**CO5:** Understanding the significant aspects of Citizen Inter Face.

# B.A. (SOCIOLOGY)

## Course Outcome

**Paper No.I Introduction to sociology**

**CO1**: Understand nature of sociology and introduction of sociology.
**CO2**: To create an awareness of the impact of sociology on the society.
**CO3**: To understand the basic concept of society, social system social groups & social institutions.
**CO4**: The students will learn perspective in sociology by various concepts like functionalist and conflict.
**CO5**: The students will learn new to analysis of social problem, evaluation of social change by the knowledge of society.

**Paper No. II Individual & Society**

**CO1:** Understand nature of culture in society.
**CO2**: To able to understand social stratification
**CO3**: To able to understand caste system.
**CO4**: To able to understand class system.
**CO5**: To learn various social change & barriers in social change.
**CO6**: To understand the concepts of conformity and deviance.

**Paper No. III Introduction to subfields of sociology**

**CO1**: To understand difference between urban sociology and rural sociology.
**CO2**: To able to understand basic concepts of sociology Psychology.
**CO3**: To able to understand basic concepts of politics psychology.
**CO4**: To able to understand concepts of Anthropology
**CO5**: To learn applications of sociology.

**Paper No.IV India Social Compositions**

**CO1**: To understand features of Indian society.
**CO2**: To understand forms of diversity in India.
**CO3**: No able to understand India population and his characteristics.
**CO4**: To learn population planning & population control program.
**CO5**: To understand democracy and secularism concept.
**CO6**: To able to understand rural and agrarian strong of India society.

**Paper No. V Problems of Rural India**

**CO1**: Student got ability to highlights institutional issues.
**CO2**: Student enables to understand domestic violence and dowry.
**CO3**: Student enables to know problem of illiteracy.
**CO4**: Student enables to know education heart.
**CO5**: Student knows the major issues in development.
**CO6**: Students understand and analyze the problem of rural economy.

**Paper No. VI Contemporary Urban Issues**

**CO1**: Student got knowledge of concepts of urbanization.
**CO2**: Student enables to understand the concepts of migration.

**CO3**: Student understands and analyzes the problem of urbanization.
**CO4**: Student enables to understand urban planning.
**CO5**: Student understands implications of globalization for cities and planning.


**Paper No. VII Population in India**
**CO1**:In understand causes and consequences of population.
**CO2**:Student understands basic concepts of fertility, mortality.
**CO3**:Students view increased of population growth and environment effects.
**CO4**:Introduce to student demographic transition
**CO5**:Students got knowledge of new population policy of India.
**CO6**:Students were awareness of how to control population growth.

**Paper No. VIII Sociology of Development**
**CO1**:Students enable to demonstrate of conceptual perspective on development.
**CO2**:Students enable to understanding of sustainable development.
**CO3**:Analysis and understanding the problem of weaker section.
**CO4**:To study and understand development issues.
**CO5**:To understand development approach, capitalist, socialist and mixer approach
**CO6**:Create the awareness among the student of government schemes.

**Paper No. IX Sociological Tradition**
**CO1**: Understand the emergence of sociological thought
**CO2**: Understand about the period of enlightenment.
**CO3**: To study and understand the sociological thinkers like August Compte, Herbert Spencer and Emile Durkheim.
**CO4**: To understanding of sociological thought and to know about pioneer sociologists stated theories.
**CO5**: To study the Karl Max and his theory of class struggle.
**CO6**: To study the Max Weber and also analysis theory of spirit of capitalism and protestant ethics.

**Paper No. X Introduction to Research Methodology**
**CO1**: Develop understanding on various kinds of research objection of doing research, research designs & sampling.
**CO2**: Have basic knowledge on qualitative research techniques.
**CO3**: Have adequate knowledge on measurement & scaling techniques as well as the quantitative date analysis.
**CO4**: Have basis awareness of date analysis and hypothesis testing procedures.

**Paper No. XI Social Problems in India**
**CO1**:Conceptual analysis of social problems.
**CO2**:Findings of the pattern of social problems causes and extents.
**CO3**:To understand and diagnose the patterns of the extent of deviances.
**CO4**:To study the problems of Inequality.
**CO5**:To analysis the problems of commercial rout ion of agriculture.
**CO6**:Students can demonstrate an understanding of the diverse forms & sources of social inequality and difference that exist in society.

**Paper No. XIII Sociological Theories**

**CO1**: Through the development of an understanding on sociological theories and concepts student can demonstrate the role of theory in sociology.

**CO2**: To understand social theory and describe its role in building sociological know.

**CO3**: To analysis compare and contrast basic theoretical orientations.

**CO4**: Describe how sociology differs from and is similar to other social science and give examples of these different

**CO5**: Demonstrate the historical cultural context in which theories were developed.

**CO6**: Apply basic theories of theoretical approach in at least one area of social reality. Apply the sociological imagination, sociological principles and concepts to her/his own life.

**Paper No. XIV Social Research Methods**

**CO1**: To understand primary techniques of the use of social research.

**CO2**: To study and understand basic methodologies approaches and describe the general to role of methods in building sociological knowledge.

**CO3**: Demonstrate an understanding of the computer application and statistics.

**CO4**: To study society and social structure and design a research study in an area of choice and explain why.

**CO5**: Develop understanding on various finds of research objectives of doing research, research process research designs and sampling.

**CO6**: Have adequate knowledge of welfare schemes.

**Paper No. XV Social Disorganization in contemporary India**

**CO1**: To study problem of disorganization and causes of social disorganization.

**CO2**: To analyze the violence and social disorder in the society and have awareness of naxalism and Terrorism in India

**CO3**: Understand the concept of Regionalism.

**CO4**: Conceptual analysis of regional imbalance

**CO5**: Solve the problem of disorganization and also think independently and draw a logical conclusion as solution

**CO6**: Create an awareness of the impact of regionalism on the society.

# B.A. (POLITICAL SCIENCE)

## Course Outcomes

**Paper No. Pol 101 Basic concepts of political science**
**CO1**: Students will know about the meaning of state, Government, sovereigns, Citizenship and lights.
**CO2**: Students will learn theories of origin of state.
**CO3**: Students will understand types of government and organs of government.
**CO4**: Students should aware about types of rights and duties of citizen

**Paper No. Pol-102 Government and politics of Maharashtra**
**CO1**: Will able to, learn on completion of course students.
**CO2**: To know historical and political Background of Maharashtra State.
**CO3**: To know state reorganization commission.
**CO4**: To understand and study the movements in Maharashtra.

**Paper No. Pol. 103 Basic consents of political science**
**CO1**: On completion of course students will able to learn.
**CO2**: To know meaning definition and types of Liberty, Equality, and justice.
**CO3**: To know the Rights of Human.
**CO4**: Students will understand the democracy system.
**CO5**: To know welfare state.

**Paper No. Pol. 104 Government and Politics of Maharashtra**
**CO1**: To know historical background of Panchyati Raj.
**CO2**: To study composition and functions of panchyati system.
**CO3**: To I get information about political parties in Maharashtra.

**Paper No. Pol. 105 Indian Government and politics**
**CO1**: To introduce Indian constitution.
**CO2**: To know fundamental rights.
**CO3**: To study Indian government.
**CO4**: To understand budgetary process:

**Paper No. Pol. 106 International Relations**
**CO1**: Information about international relation.
**CO2**: To study approaches of international relations.
**CO3**: To know foreign policy.
**CO4**: To understand the concepts of National interest and national power.
**CO5**: To introduce the international relations.

**Paper No. Pol. 107 Indian Government and politics**
**CO1**: To know about Supreme Court.
**CO2**: To introduce center state Relations.
**CO3**: To study ideology and program of political parties in India to know importance of Election Commission.

**Paper No. Pol. 108 International Relations**
**CO1**: To know about collective security to study deterrence
**CO2**: Introduce major issues in internationalism:
**CO3**: To know International and Regional organizations:

**Paper No. Pol. 109 Indian Political Thinkers**
**CO1**: To study thoughts of Raja Ram Mohan Roy
**CO2**: To know the thoughts of Dayanand Sarasvati.
**CO3**: To know the thoughts of Gopal Krishna Gokhale
**CO4**: To understand the views of Lokmanya Tilak
**CO5**: To study views of Mahatma Gandhi

**Paper No. Pol. 110: Western Political Thinkers**
**CO1**: On the completion of course students will able to
**CO2**: To study views of plate
**CO3**: To knows thoughts of Aristotle
**CO4**: To understand thoughts of Machjaveli
**CO5**: To study views of Thomas Hobbes.
**CO6**: To know thoughts of John Locke

**Paper No. Pol. 111 Political Ideologies**
On the completion of course students will able to.
**CO1**: Introduce to Nationalism
**CO2**: To understand Liberalism
**CO3**: To know democracy.
**CO4**: To study imperimism
**CO5**: To study feminism

**Paper No. Pol. 112 Indian Political Thinkers**
**CO1**: To study views of Maulana Azad.
**CO2**: To know thoughts of Jawaharlal Nehru.
**CO3**: To criticize views of M.N. Roy.
**CO4**: To understand the importance of Dr. Babasaheb Ambedkars thoughts .
**CO5**: To study thoughts of Jai Prakash Narayan.

**Paper No. Pol. 113 Western Political Thinkers**
**CO1**: To study views of Jean Jacqes Roussean
**CO2**: To analyze views of John Stuart Mill
**CO3**: To understand thoughts of Jeremy Bentham
**CO4**: To know importance of karl mart thoughts.
**CO5**: To study views of Harold Laski.

**Paper No. Pol. 114 Political Ideologies**
**CO1**: To introduce socialism.
**CO2**: To study communism.
**CO3**: To understand Fascism.

**CO4**: To know anarchism
**CO5**: To study environmentalism.

**Paper No. Pol. 115 Project**
**CO1**: On the completion of Course students will able etc.
**CO2**: To learn about research.
**CO3**: To improve scientific approach in the students.
**CO4**: Students will get basic know ledge about research.

# B.A. (ECONOMICS)

## Course outcome

**Paper No. II 102 Indian Economy**

**CO1**: To able to understanding characteristics, features structural changes in Indian Economy.
**CO2**: To able to understand the size of structure of population and their bad or good impact on our Indian Economy.
**CO3**: To able to understand the increasing problems of unemployment, poverty and their effect on Indian Economy.
**CO4**: To able to Evaluating the changing agriculture role, Industrial and service sector trade in Foreign sector.
**CO5**: To able to understand the rising social inequality problems and regional imbalances in India.
**CO6**: To able to understand the role of planning commission and National Development Council (NDC) in Indian Economy.
**CO7**: To able to understand the nature, scope and impact of New Economic Reforms in 1991 on the Indian Economy.

**Paper No. III 103 Price Theory**

**CO1**: Indentifying the nature of theory of production.
**CO2**: Comprehending the Isoquaint curve.
**CO3**: To understand cost and Revenue.
**CO4**: Realizing various production theories.
**CO5**: Clarifying the meaning of marginal, average total revenue, and marginal average and total cost and its implication.
**CO6**: Awareness of different markets structure.
**CO7**: Understanding pricing in different markets.
**CO8**: Judging the factor pricing.
**CO9**: To understanding pricing methods
**CO10**: To knowledge of Bain's model.

**Paper No. IV104 Money, Banking and Finance**

**CO1**: To able to understand the money and banking is essential understand the monetory and Banking system in India.
**CO2**: To able to understand the kinds of paper currently and methods of Note issue.
**CO3**: To able to understand the meaning, definition, functions and types of money.
**CO4**: To able to understand the functions and credit creation process of commercial banks and co-operative Banks.
**CO5**: To able to understand the functions of NABARD, RRB's and foreign Banks.
**CO6**: To able to understand the New concepts in Banking for e.g. core Banking, ATM, Credit card, E-Banking etc.
**CO7**: To able to understand the meaning, functions, organization and management of RBI.
**CO8**: To able to understand the concept of Money measures, meaning and objectives of Monetary policy and methods of credit control of RBI.

**Paper No. V 105 Macro Economics**

**CO1**: After getting knowledge about this subject students will be able to understand meaning, nature and scope of macro economics.

**CO2**: Students will be able to understand various concepts of national income, measurement of national income and what should be include and what should be not include in national income.

**CO3**: Student will be able to understand how the high growth rate achieve and maintaining has for long in developing country.

**CO4**: To be understand how to accelerate the growth rate.

**CO5**: To be understand how the employment generated in the economy with the help of leeynesian employment theories.

**CO6**: Student will be understand the difference phases of trade cycles and the impact of cyclical fluctuation on the growth rate of economy.

**CO7**: To be understand what is inflation and uses of monetary and fiscal policy for.

**Paper No. VI106 Development Economics**

**CO1**: Basic knowledge of development planning economy and its growth theory.

**CO2**: Knowledge of development growth theory.

**CO3**: to understand the basic characteristic of economics development and growth of India economy.

**CO4**: To understand the agriculture as the foundation of economics growth and development.

**CO5**: To know about Indian planning.

**CO6**: Understanding the concept and aspects of economics development.

**CO7**: Measuring the concept and issues of economic planning.

**CO8**: Discussing the need, types and necessary conditions of economics planning.

**CO9**: Can become the master in the area of urban planning development and management regional planning, housing transport, planning infrastructure planning or in other related disciplines.

**Paper No. VII 107 Public Finance**

**CO1**: After studies this subject student will be understand what public finance is all about and its importance for economy.

**CO2**: Student to be understand the classification of taxes between direct tax and indirect tax, also its help students to understand importance of tax in economy.

**CO3**: To be understand difference between private finance and public finance.

**CO4**: To be understand the principles and role of public expenditure in developing economy.

**CO5**: To be understand concept and importance of public debt as well as sources of public debt.

**CO6**: To be understand components of union budget and types of budget.

**Paper No. VIII 108 Statistical Methods**

**CO1**: On completion of the course student would health to demonstrate the role of and statistical techniques in the field of business/industry, illusory different types of equations solve.

**CO2**: Collect appropriate data concept mean, median, mode, concept of statistical averages use and apply central tendency, dispersion, skewness and kurtosis.

**CO3**: Explain concept of correlation, analyze and interpret covariance and correlation coefficient, illustrate ordinary least squares and uses estimate regression coefficient.

**CO4**: Describe the components of time series, apply time series analysis in business scenarious, illustrate the different types of Index numbers and calculate Index number.

**CO5**: Measure mortality rates, population growth reproduction rate of natural increase net reproduction rate knowledge in understanding how the population profile of a country is changing estimate population trend.

**Paper No. IX 109 International Economics**

**CO1**: To able to elaborating the importance of study of International Economics

**CO2**: To able to understanding the similarities and differences in Inter-regional and International trade.

**CO3**: To able to knowing the changes in the trade and import-export policies of India.

**CO4**: To able to evaluating various types of exchange rates in open economy and its merits or demerits.

**CO5**: To able to understanding the types and effects of tariffs and Non-tariffs bari (Quotas) in International Trade.

**CO6**: To able to judging the function, merits and demerits of IMF, IBRD (World Bank), WTO, SAARC, ADB and other International organizations.

**CO7**: To able to understanding the difference between Balance of Payment and Balance of Trade and Realizing the volume composition and direction of BOT and BOP.

**Paper No. X 110 Agricultural Economics**

**CO1**: After studies this subject student will be understand the importance of agriculture sector for any country.

**CO2**: Student will be able to draw distinctive features of rural and urban economy or agricultural and non-agricultural which can influence the whole economy.

**CO3**: Student will be able to understand applicability of agricultural economics, which encompasses all aspects of crop production including horticulture, livestock rearing, fisheries etc.

**CO4**: Student will be understand agriculture as a business aims at maximum net return through the management of land labour, water and capital employing the knowledge of various sciences for production of food, feed, etc

**Paper No. XI 111 History of Economic Thought**

**CO1**: Acquaintance with the economic thought of classical, Nationalist and socialist thinkers.

**CO2**: Judging the development of economies thought

**CO3**: Comprehend the development of the theory of Economics in historical perspective.

**CO4**: Comprehend emerging paradigam and aberration with its reasons.

**CO5**: Debute similarities and differences among different economy scholars subject.

**CO6**: History of Economic thought is every more Important now.

**CO7**: Keynes criticized 'classical economics' which was a comprehensive concept for him it included both new classical and classical economics.

**Paper No. XIII 113 Research Methodology**

**CO1**: To able to understand research methodology deals with importance of social research.

**CO2**: To able to understand meaning, nature, scope and objectives of social research.

**CO3**: To able to understand the theory, concepts hypothesis stages of scientific Research.

**CO4**: To able to understand meaning and need of Research design and types of Research design ex. descriptive. Exploratory, diagnostic and experimental etc.

**CO5**: To able to understand the methods of data collection, data presentation and data analysis.

**CO6**: To able to understand arrange the content sequence of report writing.

**CO7**: To able to understand the importance of hypothesis and concept of hypothesis testing methods.

**CO8**: To able to understand the graphs, charts, line chart diagrams and Tabular presentation.
**CO9**: To able to understand the importance of student package for social science (SPSS) in Research Methodology.

**Paper No. 114 Industrial Economic**
**CO1**: Student will be understand need and importance of industries sector in economic development for any country.
**CO2**: To be understand the linkage between industry and agriculture sector.
**CO3**: To be understand the organization and varies ownership structure of industry, like public, private & MNCs etc.
**CO4**: To be understand importance of location for industry with the help of theories of location.
**CO5**: To be understand composition of industry sector into large scale industry, Agro processing industries etc.

**Paper No. XV115 Indian Economic Thinkers**
**CO1**: Realizing the economic concept and theories of Neo-classical and Indian thinkers.
**CO2**: Evaluating the development of Indian economic thoughts.
**CO3**: To gain knowledge on the perspectives of thought Koutilya
**CO4**: To knowledge of the Economic ideas of Netaji, Rande and Datt.
**CO5**: To understand the Dr. B.R. Ambedkar Economic ideas.
**CO6**: To knowledge of Economic thought of Amartya Sen.
**CO7**: Identifying the Economic welfare and social choice.


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Course outcomes-
**Paper name- Micro Economics Paper no. - CC-1A**
**CO-1** To describe the various ideas on Economics and its related Concept.
**CO-2** To evaluate and discuss the law of Demand and Supply.
**CO-3** To impart knowledge on Indifference Curve.
**CO-4** Identify the various concept Market Equilibrium.
**CO-5** To understand Low of Supply and Supply Curve.
**CO-6** Identify the various concept of Price Line.
**CO-7** To knowledge of the Consumers Behaviour and Demand.
**CO-8** To knowledge of revelled Preference theory.
**CO-9** Identify and knowledge of kinds of Equilibrium, Static and Dynamic Equilibrium and General Equilibrium.

B.A.F.Y SEMISTER-1
**Course outcomes**
**Paper name - Macro Economics Paper no. - CC-1B**
CO-1 After getting knowledge about this subject student will be able to Understand meaning, nature and scope of Macro Economics.

**CO-2** student will be able to understand various concepts of National Income, Measurement of National Income and what should be included and what Should be not including in National Income.
**CO-3** Student will be able to understand how the high growth rate achieve and Maintaining has for long in developing country.
**CO-4** To be understand how to Accelerate the Growth rate.
**CO-5** To be understand how the Employment generated in the economy with The help of Keynesian Employment theories.
**CO-6** student will be understand the difference phases of trade Cycles and the Impact of cyclical fluctuation on the Growth rate of Economy
**CO-7** To be understand what is Inflation? And uses of Monetary Fiscal Policy For controlling Inflation Rate in Economy.

SEMISTER-2
**Course outcomes**
**Paper name- Micro Economics Paper no. - CC-1C**
Upon completion of Micro Economics student should be able to:
**CO-1** Identifying the Nature theory of production.
**CO-2** Comprehending the ISO curve.
**CO-3** To understand Cost and Revenue.
**CO-4** Realizing various Production theories.
**CO-5** Classifying the meaning of Marginal average.
**CO-6** Awareness of different Markets Structure.
**CO-7** Understanding Pricing in different Markets.
**CO-8** Judging the Factor Pricing.
**CO-9** To understanding Pricing Methods.

SEMISTER-2
**Paper name- Macro Economics Paper no. - CC-2C**
**Course outcomes-**
**CO-1** Analyse the value of Money and its Measurement.
**CO-2** Course specific outcomes of Money Banking Finance one given below.
**CO-3** Understand measures to control Inflation and Deflation.
**CO-4** To able to understand the kind of Paper currency and methods of Note Issue
**CO-5** Analyse trade Cycles and its Effects.
**CO-6** To able to understand the meaning Definition, function and types of Money
**CO-7** Understand how Monetary and Fiscal policy can be used to achieve policy Goals.
**CO-8** To able to understand the functions and credit creation process of Commercial Banks and Co-operative Banks.
**CO-9** Identify the social consequences of National and International Economics Activity
**CO-10** To able to understand the functions of NABARD, RRBS and Foreign Banks

# B.A. (HISTORY)

## Course outcomes

**Paper No. I Chhatrapati Shivaji and his times [1630-1707]**

**CO1**: Shivaji Maharaj history is useful to students for MPSC Exam
**CO2**: Students got knowledge of concept of Shivaji and his times
**CO3**: Students view increased of Nationalism and secularism
**CO4**: Student got knowledge of administration of Shivaji Maharaj
**CO5**: Introduced to students social, economic and religious condition

**Paper No. II History of Modern Maharashtra [1818-1905]**

**CO1**: Students got knowledge of concept history of modern Maharashtra
**CO2**: Modern Maharashtra History is very useful to students for MPSC examination.
**CO3**: Modern Maharashtra History is useful to student for NET-SET exam
**CO4**: Student got knowledge of Maharashtra philosophers and their philosophy
**CO5**: Students got knowledge of modern Maharashtra social Reform

**Paper No. III History of Maratha [1707-1818] Peshwa**

**CO1**: History of Maratha. History is useful to students for MPSC examination.
**CO2**: Students view increased of Nationalism and secularism.
**CO3**: Students got knowledge of administration of History of Maratha (Peshwa period)
**CO4**: Introduced of student to social, Economical and Religious condition.
**CO5**: History of Maratha [Peshwa period] History is very useful to student for all - competitive exam.

**Paper No. IV 20th Century Maharashtra: 1905 to 1960]**

**CO1**: Student got knowledge of concept 20$^{th}$ century.
**CO2**: 20$^{th}$ century Maharashtra 1905-1960 is very useful to student for MPSC exam.
**CO3**: 20$^{th}$ Century Maharashtra is very useful to student for Net-SEt and all competitive exam.
**CO4**: Students got knowledge of 20$^{th}$ century Maharashtra philosopher and social Reformer.

**Paper No. V History of Early India" [upto B.C. 300]**

**CO1**: Ancient Indian History is very importance for UPSC examination.
**CO2**: When students doing study if ancient history that time they know about original culture religion and society.
**CO3**: History of Early India is very importance for all competitive exam [Set. Net, MPSC]
**CO4**: Increasing student's wideness.
**CO5**: Student capable for discuss any social issue.

**Paper No. VI History of Delhi sultanat [A.D. 1200 to 1526]**

**CO1**: History of Delhi sultanat History is important for UPSC exam.

**CO2**: 'History of Delhi sultanat' History is very important section as far as the syllabus of any competitive examination is possible, especially civil service exams.
**CO3**: Students enable to understand the medieval political history.
**CO4**: Increasing student's wideness.
**CO5**: When students doing study of History of Delhi sultans' that times they know about original culture religion and society.

**Paper No. VII History of Mughal India [1526-1707]**
**CO1**: Medieval culture with a view understands the student.
**CO2**: Student introduced nature of medieval Indian society economy, state formations and the main religious currents of the time.
**CO3**: History of Mughal India, History is very important for UPSC exam.
**CO4**: Students enable to understand the medieval political, Economical, Social and Agriculture History.

**Paper No. VIII History of India [B.C. 300 to A.D. 650]**
**CO1**: 'History of India' is very importance for UPSC exam.
**CO2**: When students doing study is 'History of India' that times they know about original culture Religion and society.
**CO3**: Increasing students wideness.
**CO4**: Students capable for discuss any social issue.
**CO5**: 'History of India' is very importance for all competitive exam [Set-Net, MPSC]


**Paper No. IX Historiography**
**CO1**: Students know source of History.
**CO2**: Practically student know to how much write history.
**CO3**: Increased the knowledge of Research in History.
**CO4**: Students know external and internal criticism.
**CO5**: Students know Historian works.
**CO6**: Students got knowledge of History writing theory.
**CO7**: History writing trends in the world introduced to students.

**Paper No. X History of Indian National Movement [1885-1947]**
**CO1**: "History of Indian National Movement" topic as a part of History is a very important section as far as the syllabus of any competitive examination is possible, especially civil services exams.
**CO2**: Students understand of the stages of development in modern India, why certain events happened and analysis of the consequences of such developments that power an impact on our society, Economy and our political system.
**CO3**: 'History Indian National Movement" importance for competitive examination.
**CO4**: To made them awareness of the multi-dimensionality of History of Indian National Movement'.

**Paper No. XI Womens struggle in Modern India**
**CO1**: Students got knowledge of concept of "Women struggle in modern India"

**CO2**: Students view Increased of feminism.
**CO3**: Student got knowledge of female Reformers.
**CO4**: Students know source of history.
**CO5**: To helps to understand the situation of women in modern India.


**Paper No. XII Project Work**
**CO1**: Student gets information about forts.
**CO2**: Students get information about caves.
**CO3**: Students understand local history.
**CO4**: Students acquire knowledge about historical monuments.
**CO5**: Students get information about historical coins.
**CO6**: Students get information about museums, saints, social workers, Inscriptions, peasant movement, labour movement, temples, archieves, Hyderabad freedom struggle etc.

**Paper No. XIII Fields of History**
**CO1**: Students know source of history.
**CO2**: Practically student known to how much write history.
**CO3**: Students know historian works.
**CO4**: Students got information about culture.
**CO5**: It helps students to understand the Indian Architecture.
**CO6**: It helps students to understand monumentful things by fieldwork.
**CO7**: Students got great experiences by visiting.

**Paper No. XIV Landmark of the History of Modern world**
**CO1**: Students got knowledge of concept in word history.
**CO2**: Students got global event knowledge it is use for increased intellectual level.
**CO3**: World trend of thinking, Marxist, communalism Dictatorrship, Empearalism, nazizurm, Faskism, Terrorism, Feminism, Globalization etc introduced to students.

**Paper No. XV Glimpses of the History of Marathwada (up to 1948)**
**CO1**: Students got knowledge of concept glimpses of the History of Marathwada.
**CO2**: Students got knowledge of Religious movement in Marathwada.
**CO3**: Students got knowledge of socio-economical and culture History of under the Nizam state.
**CO4**: Students got knowledge of Hyderabad freedom struggle.
**CO5**: 'Glimpses of the History of Marathwada' is very useful to student for Net,Set, MPSC and all competitive exam.
**CO6**: When students doing study it 'Glimpses of the history of Marathwada' that times they know about original culture Religion and society.

**Paper No. XVI Project Work**
**CO1**: Students get information about forts.
**CO2**: Students get information about caves.
**CO3**: Students understand local history.

**CO4**: Students acquire knowledge about Historical monuments.
**CO5**: Student gets information about historical coins.
**CO6**: Students get information about museums, saints, social workers, present movement, labour movement, temples, Hyderabad freedom struggle etc


**Choice Based Credit System (CBCS) Curriculum w .e. f- June 2022**
**Dr. Babasaheb Ambedkar Marathwada University, Aurangabad**

**History Of Marathas – (A.D.1630-1707) Paper No. 01**

**CO1** - Students understood History Of Marathas; speacially, Chhatrapati Shivaji Maharaj and his concept of Swarajya.
**CO2** - Students got knowledge about concept of "Maharashtra Dharma".
**CO3** - Students analysed social, political, religious and economic changes during Medieval period.
**CO4** - Students got examine the Maratha-Mughal conflict.
**CO5** - Students analysed administrative measures and strategies adopted by Chhatrapati Shivaji Maharaj for military control.

**History Ancient India (Beginning 320 A.D.) :- Paper No.- 02**

**CO1** - Students understood the stages of evolution of human.
**CO2** - Students got understand significant contributions of important kingdoms and dynasties for ex. Satvahana, Gupta, Shung, Kushana dynasty.
**CO3** - Students got understand basic ideas and values of various religions and systems of thought during ancient period.
**CO4** - Students understood different types of sources of history and now they know how to use the historical sources for better understand the history.
**CO5** - Students got the knowledge of how to trace the changes in practices, customs, techniques of past and present through coins, paintings, monuments, museums.
**CO6** - Students learned about the progress of ancient Indian art and literature.

**History of Marathas (A.D.1707-1818) – Paper No. – 03**

**CO1** - Students understood very well how Maratha empire expanded in Peshwa's period.
**CO2** - Students get understand the causes and effects behind the third battle of Panipat.
**CO3** - Students get knowledge of social-Political and economic administration changes, during medieval (Peshwa) Period.
**CO4** - Students got knowledge for social condition, Education, Women's life, sculpture, literature etc. in Medieval Period.
**CO5** - Students understood the Various incidences of History of Maratha.
**CO6** - Students studied History of Maratha (Peshva's Period) and using historical event to get ability how to overcome the problems with using intelligence, courage and skills.

**History of Ancient History (A.D. 320 to A.D. 1206) Paper No. – 04**

**CO1** - Students get understand the political, social, religious and economical condition of Ancient Indian History.

**CO2** - When students doing study of ancient indian history, they that times original culture, religion and society.

**CO3** - Students capable for discuss any social issue.

**CO4** - From this segment of the syllabus student aware about the history of Ancient India from 320 A.D. TO 1206 A.D.

**CO5** - Students got knowledge about various dynasties ex. Gupta, Vakataka, Vardhan, Chalukya, Rashtrakuta dynasty.

# FACULTY OF COMMERCE

## B.Com

## Programme Outcome

**PO1: Conceptualization of basic Knowledge-** Through Environmental Science, Gender Equity, Indian Constitution and Computer Knowledge the program cultivates and nurtures the students into a responsible citizen. It also memorizes an idea of the behaviour of Indian and world economy, Indian Culture and history (BL1)

**PO2:Management Skills -** This program provides administrative competence knowledge of Accountancy as a trained professional required for banking sectors, Industries financial sectors and skills to become successful entrepreneurs (BL1)

**PO3:Problem Analysis-** Learners can apply in-depth knowledge of accounting, business law, financial principles and taxation to complex business problems and develop solutions. Finally, they can use their communication skills to present and discuss their findings and potential solutions with stakeholders (BL3)

**PO4:Professional Ethics -** After the programme students will gain a thorough knowledge in the fundamentals of commerce and finance. Learners will be able to recognize features and roles of businessmen entrepreneur, managers, consultants, which will help learners to possess knowledge and other soft skills and to react aptly when confronted with critical decision making (BL2)

**PO5: Professional Skills -** Learners can also acquire practical skills to work as tax consultant audit assistant and other financial supporting services (BL3)

**PO6: Communication and Linguistic Skills** – Students will be able to develop communication skills and linguistic skills to acquire competency, acquire practical and technical proficiency

It will develop their vocabulary, writing skills and encourage their scientific temper through inspiring prose and poetry and language (BL5)

## Course Outcome

**Paper No. I Financial Accounting**

**CO1**: To impart the knowledge of various accounting concepts.

**CO2**: To install the knowledge about accounting procedures methods and techniques.

**CO3**: To acquaint them with practical approach to accounts writing by using by using software package.

**Paper No. V Business and Industrial Economics**

**CO1**: To expose students of commerce to basic Microeconomics concepts and Inculcate an analytical approach to the subject matter.

**CO2**: To stimulate the student interest by showing the relevance and use of various economic theories.

**CO3**: To apply economic reasoning to problems of business.

**Paper No. IV Business mathematics and statistics**

**CO1**: To understand the concept of shares and to calculate dividend.

**CO2**: To understand the concept of population and sample.

**CO3**: To make frequency distribution to make decision.

**CO4**: To understand and to calculate various types of averages and variations.

**CO5**: To understand the concept and application of profit and loss in business.

**CO6**: To solve LPP to maximize the profit and to minimize the cost.

**CO7**: To use correlation and regression analysis to estimate the relationship between two variables.

**CO8**: To understand the concept and techniques of different types of index numbers

**Paper No. VII Entrepreneurship Development**

**CO1**: To make the students aware about the Business Environment.

**CO2**: To create entrepreneurial awareness among students.

**CO3**: To motivate students to make their mind set for taking up entrepreneurship as carrier.

**CO4**: To empower students with sufficient knowledge to start their venture with confidence.

**Paper No. VI Business communication and Information Technology and Application in Business**

**CO1**: Be able to apply knowledge of computing and mathematics appropriate to the discipline.

**CO2**: Be able to design, implement, and evaluate a computer based system, process or programme to meet desired needs.

**CO1**: Be able to function effectively on teams to accomplish a common goal.

**CO2**: Be able to analyze the local and global impact of computing on individuals, organizations and society.

**Paper No. III Corporate Accounting**

**CO1**: To enable the students to develop awareness about Corporate Accounting in conformity with the provision of Companies Act and Accounting as per Indian Accounting Standards.

**CO1**: To make aware the students about the conceptual aspect of corporate accounting.
**CO2**: To enable the students to develop skills of computerized Accounting.
**CO3**: To enable the students to develop skills about accounting standards.

**Paper No. VII Banking and Insurance**
**CO1**: To create the awareness among the students of Indian Banking System.
**CO2**: To enable students to understand the reforms and other developments in the Indian Banking.
**CO3**: To provide students insight into the functions and role of Reserve Bank of India
**CO4**: To enable students to understand the rural Banking system and self help groups.

**Paper No. IV Cost Accounting**
**CO1**: To impart the knowledge of Basic cost concepts.
**CO2**: To impart the knowledge of elements of cost.
**CO3**: To impart the knowledge of Ascertainment of material and labour cost.
**CO4**: To impart the knowledge of overheads in the O cost.
**CO5**: To impart the knowledge regarding costing techniques.

**Paper No. VI Goods and Service Tax**
Goods and Service Tax is expected to bring together state economics and improve overdue economic growth of the nation. GST is a comprehensive indirect Tax Levy on manufacturer as well as services at the national level. It will replace all indirect taxes levied on Goods and services by states and central.
**CO1**: Goods and Service Tax
**CO2**: Goods and service Tax is the biggest indirect tax return of India GST is a single tax on the supply of goods and services.
**CO3**: It is a destination based tax. GST will subsume Central Excise Law, Service Tax Law, VAT, Entry Tax, Octrio etc.

**Paper No. V Information Technology & Application in Business**
**CO1**: Describe the concept of programming.
**CO2**: Understand the features of programming.
**CO3**: Understand the features of pointer in C
**CO4**: Understand the use of Array in C
**CO5**: Understand the function of union and structure.

**Paper No. XXXVI Management Accounting**
**CO1**: Explain the three primary purposes of management accounting namely inventory valuation, decision support and cost control.
**CO2**: Compare traditional and contemporary costing approaches for the above purpose.
**CO3**: Learn how costs are analyzed for different product costing centexts such as job order process or joint product systems.
**CO4**: Develop and apply standards and budgets for planning and controlling purposes.
**CO5**: Apply incremental analysis to a range of business scenarios.

**Paper No. XXXIX New Auditing Trends**

**CO1**: To acquaint the concept and principles of Auditing, Audit process, Assurance standards Tax Audit, and Audit of computerized systems.

**CO2**: To get knowledge about preparation of Audit Report.

**CO3**: To understand the basic concepts and to acquire knowledge about computation of Income, Submission of Income Tax Return, Advance Tax, and Tax deducted at source Tax collection Authorities under the Income Tax Act, 1961

**Paper No. XXXIV Banking & Insurance**

**CO1**: To acquaint with financial markets and its various segments.

**CO2**: To understand the operations and developments in financial markets in India.

**CO3**: To enable to gain an insight into the functioning and role of financial institutions in the Indian Economy.

**Paper No. XXXVII Cost Accounting**

**CO1**: To provide knowledge about the concepts and principles application of overheads.

**CO2**: To provide also understanding various methods of costing and their application.

**CO3**: To import knowledge regarding costing techniques.

**CO4**: To provide training as regards concepts, procedures and legal provisions of cost Audit.

**Paper No. XXXV Advance Financial Accounting**

**CO1**: Read and analyze consolidated financial statements including accounting and other information disclosures.

**CO2**: Conduct practical research in the accounting discipline.

**CO3**: Discuss and solve accounting issues that arise from inter-entity relationship.

**CO4**: Explain the consolidation process and prepare consolidated financial statements based on relevant accounting standards.

# FACULTY OF SCIENCE

## Program Outcome

**PO1: Conceptualization of basic Knowledge-** Learners are encouraged to apply the knowledge of science to various solutions of complex problems. Student is exposed to wide range of topics in various subjects and is given intensive training in each of the courses that have experimental work with analytical and numerical methods. Through Science, Gender Equity, Indian Constitution and Computer Knowledge the program cultivates and nurtures the students into a responsible citizen. (BL1)

**PO2: Scientific Temperament** – The program develops scientific temperament and approach to necessary skills. The program also brings in the ability of logical thinking, problem solving, data collection and decision making among the students. (BL2)

**PO3: Interpretation** – By using numerical data, student can execute and implement the information in new situations/real world problems. Having acquired knowledge of subjects students are trained to think out of box, design and conduct an experiment that reflects their understanding of methods and process involved. (BL3)

**PO4: Critical Thinking** - Identify problems and independently propose solutions using creative approaches, acquired through interdisciplinary experiences and a depth and breadth of knowledge/expertise in the field of science and technology. This in turn helps the learner to develop a holistic approach from real time solutions. (BL3)

**PO5: Approach in Problem Solving** - Students are able to identify, formulate, interpret and analyze scientific problems to reach concrete solutions using various principle of science. This enables students to obtain results from experiments and draw suitable conclusions. (BL6)

**PO6: Communication Skills and Linguistic Ability** – Students will be able to develop communication skills and linguistic skills to acquire competency, acquire practical and technical proficiency. It will develop their vocabulary, writing skills and encourage their scientific temper through inspiring prose and poetry and language. The programme caters to ensure that learner become effective clear communicator, develop writing and oral skills and became capable of explaining complex issues with scientific community and society at large, make presentations, design documentation.(BL5)

# B.Sc. BOTANY

## Course Outcome

### B.Sc. F.Y Sem-I Paper-I Diversity of Cryptogams-I

**CO1:** Introduction about basic plant groups like Viruses, Bacteria, Algae and Fungi.
**CO2:** To equip the learners with all life science fundamental practical skills.
**CO3:** To aware learners about the economic and medicinal value of cryptogrammic plants.
**CO4:** Utility of various microbes in human life.

### B.Sc. F.Y Sem-I Paper-II Morphology of Angiosperms

**CO1:** To introduce to basic structure of plants.
**CO2:** To extend the knowledge of morphology and reproduction of plant.
**CO3:**

### B.Sc. F.Y Sem-II Paper-III Diversity of Cryptogams-II

**CO1:** Comparing taxonomical position of Bryophytes and Pteridophytes.
**CO2:** To understand morphological features of Bryophytes and Pteridophytes.
**CO3:** Interpreting evolution of heterospory in pteridophytes.

### B.Sc. F.Y Sem-II Paper-IV Histology, Anatomy and Embryology

**CO1:** To understand internal structure of plant parts.
**CO2:** To understand the functions of every tissue in plants
**CO3:** To apply theoretical knowledge in wood industry, forensic science.
**CO4:** To understand the development of seed and seed certification.

### B.Sc. S.Y Sem-III Paper-VII Taxonomy of Angiosperms

**CO1:** To familiarize with basic terminology, plant systematic and identification of plants
**CO2:** Classification and nomenclature of plants on the basis of morphological aspects
**CO3:** Relation of plant taxonomy to anatomy, embryology, palynology, ecology and cytology
**CO4:** Understand the utility of different plant products, plant family study.

### B.Sc. S.Y Sem-III Paper-VIII Plant Ecology

**CO1:** The role of climatic factors in plant development.
**CO2:** Bio-geographical regions and ecological adaptations in India
**CO3:** Students cop up with community and ecosystem.

### B.Sc. SY Sem-IV Botany Paper- XII Plant Physiology

**CO1:** To understand plant physiology, life process, plant enzymes and growth hormones.
**CO2:** To understand transportation in plants.
**CO3:** To use the theoretical knowledge for advance study in plant sciences.
**CO4:** Use of this knowledge in agriculture

## B.Sc. TY Sem-V Paper- XV Cell Biology and Molecular Biology

**CO1:** To understand the basic concepts about cell and chromosomes
**CO2:** To understand cell at molecular level
**CO3:** To enhance critical thinking among students about cell and molecular biology

## B.Sc. TY Sem-V Paper- XVI (A) Diversity of Angiosperms–I

**CO1:** To create awareness about Biodiversity and its conservation.
**CO2:** To study the major hotspots and threats to biodiversity in world.
**CO3:** To create awareness about addressing biodiversity issues and its conservation.
**CO4:** Classification of plant genera and their importance in human life

## B.Sc. TY Sem-VI Paper- XIX Genetics and Biotechnology

**CO1:** To acquire terms in Mendelian and non-Mendelian genetics.
**CO2:** Creating the mechanism of sex determination and inheritance, insight of gene
**CO3:** Application of modern biotechnology in Indian agriculture

## B.Sc. TY Sem-VI Paper- XX (A) Diversity of Angiosperms – II

**CO1:** Identification of plants
**CO2:** Classification and nomenclature of plants on the basis of morphological aspects
**CO3:** To study numerical taxonomy, and modern methods of taxonomy
**CO4:** Understand the utility of different plant products, plant family study.

# B.Sc. CHEMISTRY

## Course Outcome

**Paper No.I Inorganic Chemistry**

**CO1**: To understand the structure of atom with the help principals and theories

**CO2**: To study the periodic properties and their trends in periodic table.

**CO3**: To provide an insight into some of the fundamental concepts and Principles those are very essential in the study of chemistry.

**CO4**: To understand the properties of S and P- block elements.

**Paper No.II Organic Chemistry**

**CO1**: To predict the outcome and mechanism of some simple organic reactions, using a basic understanding of the relative reactivity of functional groups.

**CO2**: To make students capable of understanding and studying nomenclature and classification of organic compounds, organic reactions

**CO3**: To know stereochemistry and various possible conformations of organic compounds and how it affects the reaction outcome

**CO4**: To understand the role of various reaction intermediates like carbanion, carbocation, carbenes, radicals etc. in organic reactions

**CO5**: To familiarize compounds like alkanes, alkenes and aromatic compounds chemistry and their importance.

**CO6**: To enable the students to learn about the chemical and properties of alkyl and aryl halides.

**Paper No. IV Physical Chemistry**

**CO1**: To understand basic mathematical concepts - logarithmic relations, curve sketching, linear graphs and calculation of slopes, differentiation

**CO2**: To study the postulates and kinetic gas equation, Vander waals equation for gases

**CO3**: To learn the laws of chemical kinetics, reaction rates and factors affecting reaction rates

**CO4**: To understand basics of liquid and solid state - Intermolecular forces, structures, liquid crystals.

**CO5**: To study solids, Miller Indices, laws of crystallography, X-ray diffraction by crystals. Derivation of Bragg equation.

**CO6**: To familiarize learners with colloidal state.

**Paper No.V Inorganic Chemistry**

**CO1**: To understand chemical properties of the noble gases and chemistry of xenon compounds.

**CO2**: To enable the students to get a clear idea about the molecular structure To understand types of bonds, bonding between molecules and Theories of bonding

**CO3**: To have a basic idea about nuclear Chemistry and its applications

**CO4**: To study theory of volumetric analysis - Types of titrations, indicators used in titrations.

**Paper No. III & VI Lab Course**

**CO1**: To impart the students a thorough knowledge of Systematic qualitative analysis of mixtures containing two acid and two basic radicals

**CO2**: To develop skills for quantitative estimation using the volumetric Analysis

**CO3**: To develop skills required for the qualitative analysis of organic compounds,

**CO4**:To learn the preparation organic compounds practically.

**CO5**: To develop skills required for the handling of equipments to perform instrumental non instrumental experiments.

**Paper No.VII Organic Chemistry**

**CO1**: To understand structure, reactivity, methods of preparation and chemical reactions of alcohols,

**CO2**: To enable the students to understand and study Phenols, properties and reactions mechanisms.

**CO3**: The students will understand some fundamental aspects of organic chemistry. They will learn mechanism of some organic reactions

**CO4**: To understand the basic functional group transformations, aromatic electrophilic substitution reactions, nucleophilic additions.

**CO5**: To acquaint knowledge on carboxylic acids and their reactions.

**CO6**: To provide an insight into the nitrogen compounds and their reactions with mechanism.

**Paper No. VIII Physical Chemistry**

**CO:1** To understand the concept of thermodynamic and Laws of thermodynamics.

**CO:2** To study the concept of enthalpy, Hess law and Kirchhoff's equation.

**CO:3** To learn Thermodynamic derivation of the law of chemical equilibrium

**CO4:** To provide an insight into the characteristics of different types of solutions and electrochemical phenomena.

**CO5:** To learn ionic equilibrium and electrical properties of ions in solution

**Paper-X Inorganic Chemistry**

**CO1**: To familiarize students with first transition series elements with reference to characteristics, position in periodic table and variation in periodic properties.

**CO2**: To understand concepts and theories in coordination compounds EAN rule, isomerism, chelates.

**CO3**: To familiarize students with lanthanide and actinide series elements

**CO4**: To understand the magnetic properties of complexes for the interpretation of their structure of actinides

**CO5**: To learn the concepts of acids and bases, pH and buffer solutions.

**CO6**: To study chemical reaction in non-aqueous solvents.

**Paper No. XI Physical Chemistry**

**CO1**: To study phase diagrams and elementary idea of catalysis.

**CO2**: Students to learn about electro chemistry. To study EMF, pH and their applications.

**CO3**: Electrochemistry discussed electrical properties of ionic solutions. Different applications are there of this course.

**CO4**: To learn about the Concept, types and electrochemical theory.

**Paper No. IX & XII Lab Course**

**CO1**: To enable the students to know about principles and applications of Analytical techniques,

**CO2**: Evaluation of Analytical data, Statistical texts and data, Theory of Quantitative Analysis, Gravimetric methods

**CO3**: Enable the students to estimate the binary mixtures of metallic ions by volumetric and gravimetric methods

**CO: 4** To study and understand the different physical properties by using instrumental and non instrumental methods

**CO: 5** To develop the instruments handling techniques and improve scientific temper.

**Paper No. XIII Physical Chemistry**

**CO1**: To understand concepts in Quantum Mechanics, Schrödinger wave equation and postulates of quantum mechanics.

**CO2**: To enable the students to solve the simple quantum mechanical models such as simple harmonic oscillator, particle in a 1D- box, rigid rotor, H atom etc.

**CO3**: To impart a thorough knowledge of the fundamentals of microwave, infra red, Raman, electronic and magnetic resonance spectroscopy.

**CO4**: To understand the Photochemical processes, laws of photochemistry with examples.

**CO5**: To study some physical properties and their relation with the assingment of molecular structure.

**CO6**: This course also discusses details of synthesis, structure of some specific nano molecules.

**CO7**: To enable students to solve numerical problems.

**Paper No.XIV Organic Chemistry**

**CO1**: To introduce learners to organic spectroscopy and to identify organic compound using UV, IR and PMR spectroscopic techniques and elucidate the structure of compounds by analyzing the spectral data

**CO2**: To familiarize students with organometallic compounds - Structure, methods of synthesis and synthetic applications.

**CO3**: To understand organic synthesis via enolates, Active methylene compounds, its synthetic applications.

**CO4**: This course will give insight into the processes involved in the production of soaps, detergents, cosmetics

**Paper No.XVI Inorganic Chemistry**

**CO1**: To understand nature of metal-ligand bonding in transition metal complexes - crystal field theory

**CO2**: To familiarize with electronic spectra of transition metal complexes.

**CO3**: To introduce organo metallic compounds - classification, nomenclature, synthesis and reactions.

**CO4**: To study the roles and biological functions of metals in biological systems.

**CO5**: To introduce chromatography - types, classification and applications.

**Paper No. XVII Organic Chemistry**

**CO1**: To study the heterocyclic compounds, their aromatic characters of five and six member heterocyclic compounds.

**CO2**: To enable the students to learn about carbohydrates, amino acids and hetero cyclic compounds.

**CO3**: To understand synthesis and properties of some polymers, polymerization reactions.

**CO4**: To understand constitution, classification, synthesis, properties and applications of some drugs.

**Paper No. XV & XVIII Lab Course**

**CO1**: Students will gain an understanding of methods of analysis related to chemical analysis such as detection of function groups.

**CO2**: To develop basic skills in the techniques of crystallization, distillation, TLC .

**CO3**: To learn the separation and purification of an organic mixture by chemical/solvent separation methods,

**CO4**: To Enable the students for preparation organic compounds and its characterisation.

**CO5:** To develop and use the separation techniques using chromatographic TLC methods.

**Choice Based Credit System (CBCS) Curriculum w .e. f- June 2022**
**Dr. Babasaheb Ambedkar Marathwada University, Aurangabad**
**B. Sc. F.Y. (Semester-I)**

**CO'S Chemistry**

**Inorganic Chemistry (Paper No-I) Paper Code CHE – 111**

**CO: 1** To understand the structure of atom with the help principals and theories
**CO: 2** To study the periodic properties and their trends in periodic table.
**CO: 3** To enable the students to get a clear idea about the formation of Ionic bonds
**CO: 4** To understand the formation of chemical bond using VBT and VSEPR theories.
**CO: 5** To study the formation of structure and bonding in molecules using MOT.

**Organic Chemistry (Paper No-II) Paper Code CHE – 112**

**CO: 1** To understand the fundamental concept of organic reactions with mechanism.
**CO: 2** To know stereochemistry and various possible conformations of organic compounds
**CO: 3** To understand the aromaticity by huckel rule, physical,chemical properties of Benzene.
**CO: 4**To enable the students to learn about the chemical and properties of alkyl and aryl halides.
**CO: 5** To study the preparation , properties and named reactions of Alcohol and Phenol.

**Laboratory Course – 1 (CHE – 121)**

**CO: 1** To impart the students a thorough knowledge of Systematic qualitative analysis of mixtures containing two acid and two basic radicals
**CO: 2** To develop skills for quantitative estimation using the volumetric Analysis
**CO: 3** To develop skills required for the qualitative analysis of organic compounds,
**CO: 4** To learn the preparation organic compounds practically.

**B. Sc. F.Y. ( Semester-II)**
**CO'S Chemistry**

**Physical Chemistry (Paper No-III) Paper Code CHE – 211**

**CO: 1** To understand the concept of thermodynamic and Laws of thermodynamics.
**CO: 2** To study the concept of enthalpy, Hess law and Kirchhoff's equation.
**CO: 3** To learn Thermodynamic derivation of the law of chemical equilibrium
**CO: 4** To study the postulates and kinetic gas equation, Vander waals equation for gases
**CO: 5** To learn the laws of chemical kinetics, reaction rates and factors affecting reaction rates

**Applied Chemistry (Paper No-IV) Paper Code CHE – 212**

**CO: 1**To understand the different techniques of chromatography and its applications.
**CO: 2**To study the classification of drugs, Synthesis and properties of aspirin, paracetamol, ibuprofen and chloromycetin.
**CO: 3**To study the physical, chemical properties and process manufacture of glass.
**CO: 4**To understand the principle and applications of UV spectroscopy.
**CO: 5**To study the types of fertilizer and analysis of fertilizers using different methods.

**Laboratory Course – 2 (CHE – 221)**

**CO: 1**To study and understand the different physical properties by using instrumental and non instrumental methods
**CO: 2**To develop the instruments handling techniques and improve scientific temper.
**CO: 3** To develop and use the separation techniques using chromatographic methods

# B.Sc PHYSICS

## Course Outcome

**Choice Based Credit System (CBCS) Curriculum w .e. f- June 2022**
**Dr. Babasaheb Ambedkar Marathwada University, Aurangabad**

**B. Sc. F.Y. (Semester-I)**
**Mechanics and Properties of Matter**

**CO1.** Understand Newton's laws and apply them in calculations of the motion of simple systems.
**CO2.** Use the free body diagrams to analyze the forces on the object.
**CO3.** Understand the concepts of friction and the concepts of elasticity, fluid mechanics and be able to perform calculations using them.
**CO4.** Apply the laws of thermodynamics to formulate the relations necessary to analyze a thermodynamic process.
**CO5.** Demonstrate quantitative problem solving skills in all the topics covered

**Semester – I**
**Heat and Thermodynamics**

**CO1:** Develop an understanding on the concepts of Heat and Thermodynamics.
**CO2:** Describe and apply the physical concepts of heat, transport phenomena and laws of thermodynamics.
**CO3:** Perform calculations of heat conduction in various geometries.
**CO4:** To develop ability among the students to identify, remember and grasp the meanings, definitions and laws of heat and thermodynamics.
**CO5.** To develop attitudes such as concern for accuracy and precision, objectivity and enquiry

**Semester –II Optics**
**CO1**: Acquire the basic concept of optics and its applications.
**CO2:** Explain how image formation takes place in lenses
**CO3:** Understand the operations of many modern optical devices
**CO4:** Understand the optical phenomenon such as interference and diffraction

**Semester – II Electricity and Magnetism**
**CO1:** Develop an understanding on the concepts of Electricity and magnetism.
**CO2:** To understand the knowledge of various mathematical operations required for electrostatics and magnetostatics.
**CO3:** Explain the fundamental concepts and operations of vector analysis.
**CO4:** To increase the ability to perform calculations of various mathematical expressions and laws.
**CO5:** To develop ability among the students to identify, remember and grasp the meanings, definitions and laws of electricity and magnetism.

**BSc TY**

**PHY 302: Semester V Paper XVI Electrodynamics**

**CO1.** To state Gauss law and its application to obtain electric field for different cases.

**CO2.** Describe and explain the relationship between the electric field and the electrostatic potential.

**CO3**. Understand the relation between Electric displacement vector D, Susceptibility, Permittivity, Dielectric constant

**CO4**. To understand Faradays laws of EM induction .

**CO5**. To understand the concept of electromagnetic induction, self induction of solenoid, mutual induction of coaxial solenoid

**BSc TY**

**PHY 305: Paper XIX Atomic and Molecular Physics and LASERS**

Upon successful completion of this course it is intended that a student will be able to:

**CO1**. To explain Thomson atom model, Rutherford Nuclear model.

**CO2.** To explain Bohr's atom model, Bohr's theory of spectral lines.

**CO3**. Diagrammatic representation of Hydrogen atom spectra.

**CO4**. State and explain the key properties of vector atom model and the importance of the Pauli Exclusion Principle.

**CO5**. To explain the observed dependence of atomic spectral lines on externally applied electric and magnetic fields.

**CO4**. To state and justify the selection rules for various optical spectroscopies in terms of thesymmetries of molecular vibrations.

**CO5**. Describe theories explaining the structure of atoms and the origin of the observed spectra

**CO6**. Identify atomic effect such as space quantization and Zeeman Effect.

**BSc SY**

**PHY 202: Semester III Paper VIII Modern and Nuclear Physics**

**CO1.** To understand concept of Photoelectric effect.

**CO2.** To study different methods to determine photoelectrons, Lenards method to study e/m, Richardson and Compton expt.

**CO3**. To study various types of photoelectric cells and their applications.

**CO4.** To understand the Origin and nature of x-ray.

**CO5.** To study various experimental methods such as Laue, powder crystal methods.

**CO6**. To understand Bragg's law and Bragg's spectrophotometer.

**BSC SY**

**PHY 205: Semester IV Paper XI: General Electronics**

**CO1**. To study construction, I/O characteristics and working of various semiconductor devices such as diode, transistor, FET and MOSFET.

**CO2**. To study various biasing methods of transistor biasing, stability factors, Q point.

**CO3.** To study various amplifier circuits using transistor.

**CO4.** To study noise and feedback in amplifiers.

**CO5.** To study OPAMP, its characteristics, configuration and applications as a adder and subtractor.

**CO6.** To understand principle of oscillators and multivibrators. H parameters, various oscillator circuits.

**BSC SY Semester III**

**Paper code -201 Paper VII Mathematical, Statistical Physics and relativity**

**CO.1** To know limit of function, partial differentiation, successive total exact differentiation chain rule.

**CO.2** To understand solution of first order and second order linear differentia equation with constant coefficient.

**CO.3** To get knowledge homogeneous and inhomogeneous equation.

**CO.4** To understand special case of exponential right hand to find P.I.

**CO.5** To understand permutation and combination macrostate and microstate phase space

**CO.6** To know need of quantum statistics

**B.Sc SY Semester III**

**Paper code -206 Solid state physic paper XII**

**CO.1** To understand crystal lattice, plane lattice space lattice

**CO.2** To get knowledge translation vector, unit cell primitive, non primitive, Wigner Sietz Cell

**CO.3** To understand basis, symmetry operation to know point and space group.

**CO.4** To understand types or lattices 2-Dimentional and 3-Dimentional

**CO:5** To understand miller Indices, equation for inter planer spacing, simple crystal structure.

**CO:6** To understand inter atomic forces cohesive energy and types of bonding ionic, covalent and metallic bond secondary bonds vander walls bond & hydrogen bond

**B.Sc Semester VI**

**Non conventional energy source and optical Fibber PAPER XX**

**CO.1** Study Biomass, wind energy and understand, tidal energy ocean energy geothermal energy, biogas hydro energy

**CO.2** Study and understand solar energy, wind energy.

**CO.3** To study terms and definition of wind farm, wind turbine vertical axis wind turbine (VAWT, Horizotal axis wind turbine)

**CO.4** To understand wind mill types of wind turbines.

**CO.5** To understand monoblade (HAWT) Twin blade (HAWT)

**CO.6** To understand merits and limitations of wind energy

# BSc. MATHEMATICS

## Course Outcome

**Paper No. 101 Differential and vector calculus**

**CO1:-** Define limit continuity, function, hyperbolic function

**CO2:-** Find nth order derivative of the products of the powers of sines and cosines

**CO3:-** Prove Leibnitz's theorem.

**CO4:-** State Rolle's Theorem, lagrange's mean theorem, Cauchy's mean value theorem

**CO5:-** Prove Taylor's theorem

**CO6:-** Define: Limit of a function of two variable continuity of a function of two variable at a point, homogeneous function.

**CO7:-** State Euler's theorem on homogeneous functions, total differentials, differentiate implicit function.

**CO8:-** Define: Scalar and Vector valued point functions, directional derivative of point functions along co-ordinate axes.

**CO9:-** Define: Gradient, Operator, Divergence and curl.

**Paper No. 201 Integral calculus and vector calculus**

**CO1:-** Understand case of non-repeated linear factors, case of non-repeated linear or repeated linear factors, case of linear or quadratic non-repeated factors.

**CO2:-** Solve integration of $\sin^n x$, $\cos^n x$ and reduction formulae for integration of $\sin^{-n} x$, $\cos^n x$.

**CO3:-** State fundamental theorem.

**CO4:-** Find areas of plane regions, length of plane cureves, volumes and surfaces of revolution.

**CO5:-** Define line integrals, circulation, irrotational vector point functions, surface and volume integral

**CO6:-** Interpretation of Gauss theorem.

**Paper No. 301 Number Theory**

**CO1:-** State and prove division algorithem, Find GCD

**CO2:-** State Euclidean algorithm and Diophantine equation ax+by =c

**CO3:-** State Fundamental theorem of arithemetic

**CO4:-** Solve basic properties of congruences.State and Fermat's and wilson's theorem

**CO5:-** Introduce Eulers phi-function, T and 6

**CO6:-** State Euler's theorem Find the Mobius inversion formula.

**Paper No. 401 Numerical Anaylsis**

**CO1:-** State Bisection method, newton's-Raphson method

**CO2:-** Find finite differences, forward differences, backward differences, differences of a polynomial

**CO3:-** Describe symbolic relation and separation of symbols

**CO4:-** Calculate Newton's formulae for interpotetion

**CO5:-** Understand Lagrange's interpolation formula

**CO6:-** State Hermite's interpolation formula

**CO7:-** Calculate divided differences and their properties
**CO8:-** State newton's general interpolation formula
**CO9:-** Use Least-squares curve fitting procedures
**CO10:-** Understand fitting a straight line
**CO11:-** Find chebyshev polynomials
**CO12:-** Find solutions of different linear system of equations
**CO13:-** Find Numberical solution of ordinary differential equations

**Paper No. 501 Abstract Algebra**
**CO1:-** Understand sets, functions, integers
**CO2:-** Define group
**CO3:-** Understand subgroup, Normal subgroup, quotient groups
**CO4:-** Define homomorphism and automorphism
**CO5:-** Describe different types of rings
**CO6:-** Understand vector spaces and modules

**Paper No. 303 Mechanics**
**CO1:-** Define Rigid body, forces, Equilibrium, statics
**CO2:-** Understand complete theory of forces acting of a particle
**CO3:-** Describe theory related with equilibrium of forces acting on a particle
**CO4:-** Find forces acting on a rigid body
**CO5:-** Understand centre of gravity
**CO6:-** Define velocity and acceleration in terms of derivatives
**CO7:-** Describe Newton's law of motion, matter, Linear momentum, Angular momentum, work, energy.
**CO8:-** Illustrate rectilinear motion, projectile Motion of projectile, projectile to pass trough a given point
**CO9:-** Understand theory related to central orbits.

**Paper No.102 Differential Equation**
**CO1:-** Explain meaning of differential equation
**CO2:-** Classifies the differential equations as per order and linearity
**CO3:-** Solve first order linear differential, exact differential & Bernoulli's equations
**CO4:-** Solves the Linear differential equations with constant coefficients as well as variable coefficients of higher order.
**CO5:-** Solves the simultaneous and special form of differential equations
**CO6:-** Solves the first order partial differential equation find out partial derivatives.

**Paper No.202 Geometry**
**CO1:-** To understand geometrical terminology for planes, lines, spheres, cones and cylinder, the conicoid
**CO2:-** Solves the problems on different concepts of every subtopic
**CO3:-** Develop the theoretical formulae for different concepts

**Paper No.302 Integral Transform**

**CO1:-** Student will able to

**CO2:-** Explains the concept of Laplace transform.

**CO3:-** Explains basic properties of Laplace transform.

**CO4:-** Find Laplace transform of derivative integral, multiplication by t, division by t, unit step function of f(t).

**CO5:-** Express inverse Laplace transform & develop all formulae

**CO6:-** Solves linear differential equation using Laplace transform

**CO7:-** Explain the special functions Beta & Gamma functions its transformations & solves the examples.

**CO8:-** Student will able to Solve linear as well as non-linear partial differential equations.

**CO10:-**Solves the partial differential equations of first degree and any order by methods Charpit's Methods & Jacobies Method.

**CO11:-**Determine complementary function and particular integral of given partial differential equations

**CO12:-** Solves partial differential equations of $2^{nd}$ order

**CO13:-** Classify the $2^{nd}$ order partial differential equations in canonical forms.

**Paper No.501 Real Analysis**

**CO1:-** Define the concepts of sets, subsets, finite, infinite power, singletons sets

**CO2:-** Explains all sets operations

**CO3:-** Define functions as well as different types of functions

**CO4:-** Define real valued, complex valued functions as well as countable & uncountable set & study all existing sets.

**CO5:-** Define sequences & services

**CO6:-** Established theorems and solve problems related to sequences & series

**CO7:-** Explain concept of Jacobians & solve examples on this concepts.

**Paper No. 504 Ordinary Differential Equation – I**

**CO1:-** Define complex number and its properties, construct theory & solve examples on it.

**CO2:-** Solves determinant for given system.

**CO3:-** Explains the linear differential equations, develop theory of homogeneous & non-homogeneous equations & solves examples on it.

**CO4:-** Define linear equations of $2^{nd}$ order homogeneous & non-homogeneous equations.

**CO5:-** Solve the examples & establish the theory related to it.

**Paper No.601 Real Analysis**

**CO1:-** Define concept of Metric space, limit in metric space.

**CO2:-** Familiar with the concept of basic proof techniques & fundamental concepts such as connectedness, completeness & compactness.

**CO3:-** Explain the Riemann integral & its properties solve examples on it.

**CO4:-** Explain the concept of Fourier series & solve examples on it.

**Paper No.604 Ordinary Differential Equations -II**

**CO1:-** Explain the linear differential equations with variable coefficient. Develop the theory related initial value problem i.e. existence & uniqueness theorems

**CO2:-** Explain the concept of wroskian as well as apply theoretical concept to solve the examples

**CO3:-** Solves homogeneous equations with analytical coefficients

**CO4:-** Solve Legendre equations

**CO5:-** Study linear equations with regular singular points and solve examples on it.

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**MAT 102: Differential Calculus**

**CO2:-** After completion of the course students will be able to;

**CO3:-** Classify the sequences

**CO4:-** Check the limit and continuity of functions

**CO5:-** Evaluate the derivative of functions

**CO6:-** Find the curl divergence and gradient of functions

**MAT 202: Integral Calculus**

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

**CO1:-** Apply method of integration to find the integral of functions

**CO2:-** Find the area, surface and volume of given shape

**MAT101 Geometry**

**CO1:-** Identify and study equation of plane, basic idea of lines, sphere, cones and cylinder also solve examples on it

**MAT201: Number Theory**

**CO1:-** Evaluate the greatest common divisor and solve Diophantine equation

**CO2:-** Under starring concept of divisibility, prime number and usefulness of confidence

**CO3:-** Use the result to solve problems

# B.Sc. ZOOLOGY

## Course Outcome

**Paper No. I Protozoa to Annelida**

**CO1**:-To understand the life cycle and classification of Animal.

**CO2**:-To study the development and control measures.

**CO3**:-To study the whole cell organelles with their structure and functions.

**Paper No. V Arthropoda to Echinodermata and Protochordata**

**CO1**:-To demonstrate solve and understand of major concept in all discipline of Zoology.

**CO2**:-To know the characters and development of the animals to the students.

**CO3**:-To use modern zoological tools, models and charts equipment.

**Paper No. IX Vertebrate Zoology**

**CO1**:-To understand the study of the life cycle and development of animals.

**CO2**:-To study General Character and Embryological and placenta of mammals.

**Paper No. XII Biochemistry and Endocrinology**

**CO1**:-To understand digestion and absorption of protein, carbohydrate & lipids

**CO2**:-To understand fat bodies, structure, physiology biochemistry, function of fatty acid metabolism

**Paper No. XVIII Fishery Science I**

**CO1**:- To understand the fish culture and preparation, management of fish culture and ponds

**CO2**:- Transport of fish seeds and brood fish and harvesting, preservation, processing of fish and fish pathology

**CO3**:- Students acquire knowledge through practical work in field and laboratory

**Paper No.XXII Fishery Science II-**

**CO1**:-To study definition and history.

**CO2**:-To study the brackish water, major reservoir and capture fisheries.

**Paper No. II Cell Biology**

**CO1**:-To describe the components, types of cells and its organelles

**CO2**:-To study the role of cell system and tissue organization

**CO3**:-To study the cell organelles and its role in cell function

**CO4**:-To understand the cellular components underlying mitotic cell division

**Paper No. V Genetics I**

**CO1**:- To Understand the principles of Heredity and Variations

**CO2**:- To study role of genetics in Evolution

**CO3**:- To analyze and solve the problems based on Genetics I
**CO4**:- To analyze and solve the problems based on Genetics

**Paper No. VIII Genetics II**
**CO1:-** To understand the role of genes
**CO2:-** To study the central dogma
**CO3:-** To Study of genetic variation within populations in population genetics
**CO4:-** To familiarize the applications and techniques of modern genetic technology

**Paper No. XI Animal Physiology**
**CO1:-** To understand physiological processes
**CO2:-** To study functions and skills in regards to life regulating process

**Paper No. XV Ecology**
**CO1**:- To Discern the knowledge of Ecological systems at different spatial and temporal level
**CO2:-** To Perceive the types of abiotic and biotic factors
**CO3:-** To develop deeper understanding of food chains and food webs, ecological pyramids
**CO4:-** To describe the ecological successions and various ecosystems

**Paper No.XIX Evolution**
**CO1:-** To understand the evidences of evolution through different theories
**CO2:-** To Aware of environment, natural elemental forces in evolution
**CO3:-** To study the process of speciation
**CO4:-** To identify role of heredity and variation in evolution

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**B. Sc. F.Y. (Semester-I)**
**Paper No. I Animal Diversity I Protozoa to Echinodermata**
**CO1:-** To know characters and classification of non chordates
**CO2:-** To understand the diversity and complexity of life forms

**Paper No. II Cell Biology**
**CO1:-** To Understand the structure and function of cell in animal cells
**CO2:-** To understand the cellular environments
**CO3:-** To study the biology of cancer

**Paper No. IV Diversity of Chordate II Protochordata to Mammals**
**CO1:-** To know the general characters and classification of chordates
**CO2:-** To understand the increasing complexity of organization of life forms from lower to higher chordates

**(Semester-II)**

**Paper No. V Genetics**

**CO1:-** To Understand the principles of Heredity and Variations

**CO2:-** To study the role of genetics in Evolution

**CO3:-** To analyze and solve the problems based on Genetics

**CO4:-** To learn the genetic disorders and its chromosomal role

# B.Sc. Computer Science (Optional)

## Course Outcome

**Paper No. CSO1 Computer Fundamentals**

**CO1:-** On successful completion of this subject the students have overall introduction to Computer Hardware.

**CO2:-** Understanding the concept of input and output devices of Computers and how it works and recognize the basic terminology used in computer programming

**Paper No. CSO2 Digital Electronics**

**CO1:-** Understand the current voltage characteristics of semiconductor devices.

**CO2:-** Analyze dc circuits and relate ac models of semiconductor devices with their physical Operation

**CO3:-** Design and analyze of electronic circuits

**CO4:-** Evaluate frequency response to understand behaviour of Electronics circuits

**Paper No. CSO4 Operating System**

**CO1:-** Analyze the structure of OS and basic architectural components involved in OS design

**CO2:-** Analyze and design the applications to run in parallel either using process or thread models of different OS

**CO3:-** Analyze the various device and resource management techniques for timesharing and distributed systems

**CO4:-** Understand the Mutual exclusion, Deadlock detection and agreement protocols of Distributed operating system

**Paper No. CSO5 Programming in C**

**CO1:-** To demonstrate the ability to design creative solutions to real life problems faced by the industry.

**CO2:-** To communicate technical topics in written and verbal forms.

**CO3:-** Develops the use of the C programming language to implement various algorithms, and develops the basic concepts and terminology of programming in general

**Paper No. CSO7 Advance C Programming**

**CO1:-** To demonstrate the ability to design creative solutions to real life problems faced by the industry.

**CO2:-** To communicate technical topics in written and verbal forms.

**CO3:-** Develops the use of the C programming language to implement various algorithms, and develops the basic concepts and terminology of programming in general.

**Paper No. CSO8 - Data Structure**

**CO1:-** Select appropriate data structures as applied to specified problem definition.

**CO2:-** Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various data structures.

**CO3:-** Students will be able to implement Linear and Non-Linear data structures.

**CO4:-** Implement appropriate sorting/searching technique for given problem.

**Paper No. CSO11 - Programming in CPP**

**CO1:-** Be able to understand the difference between object-oriented programming and procedural oriented language and data types in C++.

**CO2:-** Be able to program using C++ features such as composition of objects, Operator overloading, inheritance, Polymorphism etc.

**CO3:-** At the end of the course students will able to simulate the problem in the subjects like Operating system, Computer networks and real-world problems.

**Paper No. CSO12 DBMS Using SQL**

**CO1:-**Understand, analyze and apply common SQL statements including DDL, DML and DCL statements to perform different operations.

**CO2:-** Design different views of tables for different users and to apply embedded and nested queries.

**CO3:-** Design and implement a database for a given problem according to well known design principles that balance data retrieval performance with data consistency.

**Paper No. CSO15 -Software Engineering**

**CO1:-**Understand and demonstrate basic knowledge in software engineering.

**CO2:**Identify requirements, analyze and prepare models.

**CO3:-** Plan, schedule and track the progress of the projects.

**CO4:-** Design & develop the software projects.

**CO5:-** Identify risks; manage the change to assure quality in software projects.

**CO6:-** Apply testing principles on software project and understand the maintenance concepts.

**Paper No. CSO16 -Web Designing**

**CO1: -** Understand the functions of clients, servers, the HTTP protocol and HTML with scripting languages

**CO2: -** Be able to write a well-formed HTML page.

**CO3: -** Be able to employ Cascaded Style Sheets

**CO4: -** Perform a simple analysis of the structure of the web.

**Paper No. CSO19 –Data Communication and Networking**

**CO1:-** To explain how communication works in computer networks and to understand the basic terminology of computer networks.

**CO2:-** To explain the role of protocols in networking and to analyze the services and features of the various layers in the protocol stack.

**CO3:-** To understand design issues in Network Security and to understand security

threats, security services and mechanisms to counter them.

**Paper No.CSO20 -E-Commerce**

**CO1:-** Understand the basic concepts and technologies used in the field of management information systems.

**CO2:**Be aware of the ethical, social, and security issues of information systems

**Choice Based Credit System**

**(w.e.f Academic year 2022-2023)**

**CMP-111 Computer Fundamental**

**CO1** Knowledge of computer fundamental, CPU and its functionality.
**CO2** Understanding of block diagram of hardware peripherals.
**CO3** Understanding the algorithms and flowcharts.
**CO4** Understanding the concept of software and its types

**CMP-112 Operating System**

**CO1** Gain knowledge of system software program and process.
**CO2** Understand type of operating system, basic of operating system, evaluation of operating system.
**CO3** Understand the concept of process. Process control block and thread.
**CO4** Understand the CPU scheduling non-preemptive and preemptive scheduling algorithm.
**CO5** Study about Memory and I/O management techniques.

**CMP-211 Digital Electronic**

**CO1** Understand the computer system architecture, working gates and its functionality.
**CO2** To impart basic knowledge in digital logic and circuit and to introduce basic concepts of data communication.
**CO3** Learn to design basic logical circuit using commonly used combinational and sequential circuits.

**CMP-212 Basic C Programming**

**CO1** Understand algorithmic thinking and problem solving and impart moderate skill in programming using C language in an industry standard.
**CO2** Learn basic features, create, and execute simple C programs using conditional statements, loops and arrays.

# BCA MANAGEMENT SCIENCE

## Program Outcome

**PO1: Managerial Skills:** Students can apply knowledge of Computing Fundamentals as well as Accounting, Business Law and Management Knowledge appropriate for the conceptualization of Computing Managerial model (**BL1**).

**PO2: Professional Ethics**: Students can use ethical practices and cyber regulations in computing and management principles (**BL3**).

**PO3: Problem Solving Approach**: Use of Research based knowledge, research methods for analyze and interpretation of data at definitive alternative to provide valid conclusion (**BL4**).

**PO4: IT tools:** Learners recognize the need and adopt appropriate tools and techniques for modern management process and IT tools (**BL3**)

**PO5: Learning**: Students will develop analytical and problem-solving skills by learning the subject through case-based approach (**BL3**).

**PO6: Communication**: Communicate effectively on complex business management activities, with logical and relevant business information in effective manner (**BL5**).

## Courses Outcomes

**Paper No.I Financial Accounting I**

**CO1:-** To prepare students about important financial accounting concepts

**CO2:-** To give the practical knowledge of accounting to the students. To make the students competent in preparation of Accounts for the Business Entities.

**CO3:-** To study the fundamental Accounting concepts, terms, jargons and learn the process of recording of financial transactions in the books of Accounts.

**CO4:-** To develop the foundation for higher studies in the field of accounting

**Paper No. II Industrial Economics**

**CO1:-** The objective of this subject is to develop a basic understanding about the Principles of Economics.

**Paper No.III Business Statistic's**

**CO1:-** To impart the required knowledge of Mathematics and statistics for managerial activities among students

**Paper No. IV Operating System**

**CO1:-** Ability to apply CPU scheduling algorithms to manage tasks.

**CO2:-** Initiation into the process of applying memory management methods and Allocation policies.

**CO3:-** Knowledge of methods of prevention and recovery from a system deadlock

**Paper No. V Communication Skill I**

**CO1:- Reading Skills: -** Ability to read English with ability to read English with understanding and decipher paragraph patterns, writer techniques and conclusions.

**CO2:- Writing Skills: -** Skill to develop the ability to write English correctly and master the mechanics of writing the use of correct punctuation marks and capital letter.

**CO3:- Listening Skills: -** Ability to understand English when it is spoken in various contexts.

**CO4:- Speaking Skills: -** Develop the ability to speak intelligibly using appropriate word stress, sentence stress and elementary intonation patterns.

**Paper No. VI Basics of Web Technology**

**CO1:-** Ability to develop web pages using HTML and Cascading Style Sheets.

**CO2:-** To introduce knowledge in web technological concepts and functioning internet

**Paper No. VII Accountancy II**

**CO1:-** Introduction to Goodwill of Partnership, Accounts of Non trading Concern

**CO2:-** Knowledge of Company final Accounts, Single Entry System

**Paper No. VIII Industrial Organization**

**CO1:-** Learn the concept of Industrialization, Scale of Operation and size of Business Knowledge about concept of concentration of power, Industrial policy, Corporate structure of Business

**Paper No. IX Mathematics**

**CO1:-** Develops formal reasoning, Creates habit of raising questions.

**CO2:-** Knowledge regarding the use of Mathematics in Computer Science, Helpful in formulating questions.

**Paper No. X Programming in C**

**CO1:-** Learn how to build by the algorithms for problems, how to create pictorial representations of the program.

**CO2:-** Learn how to apply logic for problems, Enhance their programming skills

**Paper No. XI Principle of Management**

**CO1:-** To acquaint the students with the basic Business Management concept & process.

**CO2:-** To provide a basis of understanding to the students with reference to working of business organization through the process of management.

**CO3:-** To familiarize the students with the basic Management concept & process

**Paper No. XII Basics of Web Technology II**

**CO1:-** Ability to develop web pages using HTML and Cascading Style Sheets.

**CO2:-** Skill to create XML documents and, languages to build dynamic web pages.

**CO3:-** Familiarization with Web Application Terminologies, Internet Tools, E – Commerce and other web services, ability to develop database applications with MySQL

**Paper No XIII Principles of Management**

**CO1:-** To learn and acquaint the student with the basics of management ,Managerial planning and decision making, staffing and organization ,directing controlling and Recent Trends in Business Management

**Paper No. XIV Oops using CPP**

**CO1:-** Know the principles of OOPs concept and control structure

**CO2:-** Analyse the concept of classes and object, array, functions, constructor and destructor

**CO3:-** Understand the concept of inheritance and classification, pointers, virtual function and polymorphism

**CO4:-** Able to work with files, file pointers and its manipulations

**Paper No. XV Business Law I**

**CO1:-** Learn Indian Contract Act 1987,Sell Of Goods Act 1939,Negotiable Instrument Act 1881,Consumer Protection Act(Amended Act 2002) and Cyber and IT Act 2000..

**CO2:-** Understand the basic structure, rules & powers of consumer protection act.

**CO3:-** To know the provision regarding strikes and lock outs under industrial dispute act.

**Paper No. XV Business Law**

**CO1:-** Learn Indian Contract Act 1987,Sell Of Goods Act 1939,Negotiable Instrument Act 1881,Consumer Protection Act(Amended Act 2002) and Cyber and IT Act 2000..

**CO2:-** Understand the basic structure, rules & powers of consumer protection act.

**CO3:-** To know the provision regarding strikes and lock outs under industrial dispute act.

**Paper No. XVII E-Business Essentials**

**CO1:-** To prepare students to acquire the knowledge of recent trends in e-commerce. Also, students are prepared for website management which can helpful in industry

**Paper No.XVIII RDBMS**

**CO1:-** To inculcate knowledge on RDBMS concept and programming with oracle

**CO2:-** Give an introduction about RDBMS, data models, a schema, E-R Diagram, relational database and benefits of database.

**CO3:-** understand the basic concepts of Relational Database, procedures, functions and transactions

**Paper No XIX Cost Accountancy**

**CO1:-** Understand the concept of Cost accounting, costs.

**CO2:-** Learn how to prepare of cost sheets

**CO3:-** Use of material and wages in Business

**Paper No. XX Business Law II**

**CO1:-** Learn Companies Act, Negotiable Instruments Act, Factories Act and Payment of Wages Act

**Paper No. XXI Entrepreneurship**

**CO1:-** Understand the Concept, Philosophy evolution , development and qualities of Entrepreneur

**CO2:-** Prepare a functions and settings of Entrepreneur and SSI

**Paper No. XXII Java Programming**

**CO1:-** Understand the concept of OOP as well as the purpose and usage of inheritance, polymorphism, encapsulation and method overloading.

**CO2:-** Identify classes, objects, members of a class and the relationships among them needed for a specific problem.

**CO3:-** Create Java application programs using sound OOP practices (e.g., interfaces and APIs) and proper program structuring (e.g., by using access control identifies, automatic documentation through comments, error exception handling).

**CO4:-** Use testing and debugging tools to automatically discover errors of Java programs as well as use versioning tools for collaborative programming/editing.

**CO5:-** Develop programs using the Java Collection API as well as the Java standard class library

**Paper No. XXIII MIS & DSS**

**CO1:-** Introduction to MIS,DIS

**CO2:-** Learn how to make decision by using various methods.

**CO3:-** Use of Framework, Components of MIS and DSS

**Paper No. XXIV Networking and Web Design**

**CO1:-** Learn the need to create a Network, different layers and protocols present in those layers.

**CO2:-** Learn to configure the network devices, IP -Addressing.

**CO3:-** Ability to develop web pages using HTML and Cascading Style Sheets.

**CO4:-** To introduce knowledge in web technological concepts and functioning internet•

**Paper No. XXV Management Accounting**

**CO1:-** To familiarize the students with the basic Management Accounting concept & process.

**CO2:-** Learn Analysis and Interpretation of Financial statement, Funds flow analysis, Cash Flow analysis, Ratio Analysis

**Paper No. XXVI Organisation Behaviou**

**CO1:-** To prepare students to understand Human Behaviour at work

**CO2:-** To study Human behaviour at work

**CO3:-** To get knowledge of Individual & Interpersonal perspectives

**CO4:-** To get in depth knowledge of motivation, leadership and organizational change

**Paper No. XXVII Business Elective**

**CO1:-** Banking & Insurance Knowledge of Basics of Banking, Bank Deposit Account, Negotiable Instruments and Insurance

**CO2:-** Learn Business needs fund for establishment, growth ,and Development

**Paper No. XXVIII RDBMS using Oracle**

**CO1:-** To inculcate knowledge on RDBMS concept and programming with oracle

**CO2:-** Give an introduction about RDBMS, data models, a schema, E-R Diagram, relational database and benefits of database.

**CO3:-** Understand the concepts of database architecture, client server architecture, parallelism concepts and distributed database concepts

**CO4:-** Learn about indexes, sequences, data integrity, creating and maintaining tables and user privileges

**CO5:-** understand the basic concepts of Relational Database, procedures, functions and transactions

**Paper No. XXIX VB**

**CO1:-** know the working environment of visual basics using a control structure

**CO2:-** Understand the module, components and menu editor and its concept in a simple manner

**CO3:-** Analyze a control such text box, rich text box and etc.

**CO4:-** Write coding easily
**CO5:-** develop the project with database using ODBC, DAO, ADO and visual data manager
**CO6:-** Include the active controls and other control to perform particular task

**Paper No. XXX IT Elective**

**CO1:-** Internet ProgrammingKnowledge of Basic of Internet like WWW, Protocols Domain name
**CO2:-** Knowledge of client-side (JavaScript) and server-side scripting (PHP, ASP.NET) languages to build dynamic web pages.
**CO3:-** Familiarization with Web Application Terminologies, Internet Tools, E – Commerce and other web services

**Paper No. XXXI Business Law II**

**CO1:-** Learn the Concept of cyber crime and the IT Act 2000,contracts and copyright and Digital Signatures.
**CO2:-** Learn how the protection of cyber consumers in India

**Paper No. XXXII Business Elective II- Service Marketing**

**CO1:-** Understand concepts, philosophies, processes and techniques of managing the service of operations of a firm

**Paper No. XXXIII Elements of Commercial Portal**

**CO1:-** Learn the basic terminology of internet Technology, Various Mark-up Languages
**CO2:-** Comprehensive knowledge of Internet and its working.
**CO3:-** Ability to use services offered by internet.
**CO4:-** Skill to develop websites using HTML and DHTML, Web server and Web server software

**Paper No. XXXIV System Programming**

**CO1:-** Learn about components of system programming
**CO2:-** Learn about Machine structure, Machine Language and Programming Languages

**Paper No. XXXV IT Elective Mobile Computing**

**CO1:-** Identify constraints, uncertainties and risk of the system (social, cultural, legislative, environmental, business etc).
**CO2:-** Identify and apply relevant problem solving methodologies.
**CO3:-** Design components, systems and/ or processes to meet required specification.
**CO4:-** Demonstrate research skills.

**Paper No. XXXVI Project**

**CO1:-** Skill to apply Software Development Cycle to develop a software module.
**CO2:-** Ability to use the techniques, skills and modern engineering tools necessary for software development.
**CO3:-** Develop a software product along with its complete documentation

# B.Sc COMPUTER SCIENCE

## Program Outcome

**PO1:Engineering Knowledge:** Apply the knowledge of algorithm, and programming to the solution of real time problems (**BL1**).

**PO2:Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences (**BL4**).

**PO3:Problem Solving Approach**: Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline (**BL3**).

**PO4:Skilled human resource for IT industry:** The Programme assists to produce skill oriented human resource (**BL6**).

**PO5:Scientific Problems:** To formulate and analyse complex scientific problems (**BL4**).

**PO6:Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the computer science practice (**BL3**).

## Course Outcome

**Paper No. Paper No. CS101 T Computer Fundamentals**

**CO1:-** On successful completion of this subject the students have overall introduction to Computer Hardware.

**CO2:-** Understanding the concept of input and output devices of Computers and how it works and recognize the basic terminology used in computer programming

**Paper No. CS102 T Digital Electronic**

**CO1:-** Design and analyze of electronic circuits

**CO2:-** Evaluate the working of digital circuits such as register, filp flop, etc... response to understand behaviour of Electronics circuits

**Paper No. CS103 T Microprocessor-I**

**CO1:-** Assess and solve basic binary math operations using the microprocessor and explain the microprocessor internal architecture and its operation within the area of manufacturing and performance.

**CO2:-** Apply knowledge and demonstrate programming proficiency using the various addressing modes and data transfer instructions of the target microprocessor.

**CO3:-** Analyze assembly language programs

**Paper No. CS104 T C Programming - I**

**CO1:-** On successful completion of this subject the students have the knowledge about S/W and what are the languages to develop that.

**CO2:-**Understand the fundamentals of C programming including programming ability.

**CO3:-** Choose the loops and decision making statements to solve the problem.

**CO4:-** Implement different Operations on arrays

**Paper No. CS105 T Communication Skill-I**

**CO1:-** Understand the process of communication and its effect on giving and receiving information.

**CO2:-** Learn about historical and theoretical developments in the field of communication.

**CO3:-** Apply effective communication skills in a variety of public and interpersonal settings.

**CO4:-** Develop analytical, research, and organizational skills

**Paper No. CS106 T Mathematical Foundation**

**CO1:-** Ability to apply mathematical logic to solve problems.

**CO2:-** Understand sets, relations, functions and discrete structures.

**CO3:-** Able to use logical notations to define and reason about fundamental mathematical concepts such as sets relations and functions.

**CO4:-** Able to model and solve real world problems using graphs and trees

**Paper No. CS201 T Data Structure**

**CO1:-** Select appropriate data structures as applied to specified problem definition.

**CO2:-** Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various data structures.

**CO3:-** Students will be able to implement Linear and Non-Linear data structures, sorting / searching technique for given problem

**Paper No. CS202 T Operating System**

**CO1:-** Analyze the structure of OS and basic architectural components involved in OS design.

**CO2:-** Analyze and design the applications to run in parallel either using process or thread models of different OS.

**CO3:-** Analyze the various device and resource management techniques for timesharing and distributed systems.

**CO4:-** Understand the Mutual exclusion, Deadlock detection and agreement protocols of Distributed operating system.

**Paper No. CS203 T Microprocessor – II**

**CO1:-** The students will be able to implement 8086 assembly language programming

**Paper No. CS204 T C Programming - II**

**CO1:-** To demonstrate the ability to design creative solutions to real life problems faced by the industry.

**CO2:-** Develops the use of the C programming language to implement various algorithms, and develops the basic concepts and terminology of programming in general.

**Paper No. CS205 T Communication Skill - II**

**CO1:-** To demonstrate his verbal and non-verbal communication ability through presentations.

**CO2:-** To stimulate their Critical thinking by designing and developing clean and lucid writing skills.

**CO3:-** To demonstrate his verbal and non-verbal communication ability through presentations.

**Paper No. CS206 T Numerical Computation Method**

**CO1:-** Apply various interpolation methods and finite difference concepts.

**CO2:-** Work out numerical differentiation and integration whenever and wherever routine methods are not applicable.

**CO3:-** Work numerically on the ordinary differential equations using different methods through the theory of finite differences

**Paper No. CS301 T Advance Data Structure**

**CO1:-** To access how the choices of data structure & algorithm methods impact the performance of program.

**CO2:-** To Solve problems based upon different data structure & also write program

**CO3:-** Choose an appropriate data structure for a particular problem

**Paper No. CS302 T Unix Operating System**

**CO1:-** To have the ability to use a variety of common Unix commands and utilities.

**CO2:-** To have the ability to execute shell commands interactively and write shell scripts for at least two Unix Shells.

**CO3:-** Be familiar with basic Unix communications and networking commands.

**Paper No. CS30 T PC Maintenance**

**CO1:-** Introduced to a variety of operations and maintenance techniques, as well as safety and anti-virus procedures.

**CO2:-** Able to install and add operating system software and hardware, customize operating features, configure networks and provide basic PC support services.

**CO3:-** Personal Computer (PC) maintenance and repair, such as hardware and software installation, system optimization and basic troubleshooting

**Paper No. CS304 T Programming in CPP**

**CO1:-** Be able to understand the difference between object oriented programming and procedural oriented language and data types in C++.

**CO2:-** Be able to program using C++ features such as composition of objects, Operator overloading, inheritance, Polymorphism etc.

**CO3:-** At the end of the course students will able to simulate the problem in the subjects like Operating system, Computer networks and real world problems.

**Paper No. CS305 T DBMS**

**CO1:-** Understand, analyze and apply common SQL statements including DDL, DML and DCL statements to perform different operations.

**CO2:-** Design different views of tables for different users and to apply embedded and nested queries.

**CO3:-** Design and implement a database for a given problem according to well known design principles that balance data retrieval performance with data consistency

**Paper No. CS306 T Statistical Method**

**CO1:-** Organize, manage and present data.

**CO2:-** Analyze statistical data graphically using frequency distributions and cumulative frequency distributions.

**CO3:-** Analyze statistical data using measures of central tendency, dispersion and location.

**CO4:-** Identify the type of statistical situation to which different distributions can be applied

**Paper No. CS401 T Software Engineering**

**CO1:-** Understand and demonstrate basic knowledge in software engineering.

**CO2:-** Identify requirements, analyze and prepare models.

**CO3:-** Plan, schedule and track the progress of the projects.

**CO4:-** Design & develop the software projects.
**CO5:-** Identify risks; manage the change to assure quality in software projects.
**CO6:-** Apply testing principles on software project and understand the maintenance concepts.

**Paper No. CS402 T Fedora**
**CO1:-** Student get understand graphical environment which include GNOME and KDE.
**CO2:-** Understand the features of Fedora with installation.

**Paper No. CS403 T Basic of Networking**
**CO1:-** To explain how communication works in computer networks and to understand the basic terminology of computer networks.
**CO2:-** To explain the role of protocols in networking and to analyze the services and features of the various layers in the protocol stack.
**CO3:-** To understand design issues in Network Security and to understand security threats, security services and mechanisms to counter them

**Paper No. CS404 T Core Java**
**CO1:-** Explore the Java programming language.
**CO2:-** Work with Primitive Types, Strings and Interactive Input/Output.
**CO3:-** Manipulate the Flow of Control, Design/Create/Use Classes and Methods, Manipulate Classes and Methods.
**CO4:-** Program with Inheritance

**Paper No. CS405 T Adv. DBMS**
**CO1:-** To understand the basic concepts regarding database, know about query processing and techniques involved in query optimization and understand the concepts of database transaction and related database facilities including concurrency control, backup and recovery
**CO2:-** To understand the difference between DBMS and advanced DBMS and use of advanced database concepts and become proficient in creating database queries.

**Paper No. CS406 T Web Fundamental**
**CO1:-** Understand the functions of clients, servers, the HTTP protocol and HTML.
**CO2:-** Be able to write a well-formed HTML page.
**CO3:-** Be able to employ Cascaded Style Sheets.
**CO4:-** Be able to create simple web forms and process them with PHP.
**CO5:-** Understand elementary graph theor
**CO6:-** Perform a simple analysis of the structure of the web.•

**Paper No. CS501 T Software Cost Estimation**
**CO1:-** An ability to use the techniques, skills, and modern engineering tools necessary

for engineering practice.

**CO2:-** An ability to identify, formulate, and solve engineering problems.

**CO3:-** An ability to design a hardware and software system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability•

**Paper No. CS502 T Basic of Android O.S**

**CO1:-** Install and configure Android application development tools.

**CO2:-** Design and develop user Interfaces for the Android platform.

**CO3:-** Save state information across important operating system events.

**CO4:-** Apply Java programming concepts to Android application development.

**Paper No. CS503 T Core JAVA - II**

**CO1:-** Implement object oriented programming concepts.

**CO2:-** Use and create package and interfaces in a Java program.

**CO3:-** Use graphical user interface in Java programs

**CO4:-** Create applets.

**CO4:-** Connect with DataBase with JDBC

**Paper No. CS504 T Basic of Computer Graphics**

**CO1:-** the basics of computer graphics, different graphics systems and applications of computer Understand graphics

**CO2:-** Discuss various algorithms for scan conversion and filling of basic objects and their comparative analysis.

**CO3:-** Use of geometric transformations on graphics objects and their application in composite form.

**CO5:-** Extract scene with different clipping methods and its transformation to graphics display device

**Paper No. CS506 T Basic of ASP.Net**

**CO1:-** Be able to design web applications using ASP.NET.

**CO2:-** Be able to use ASP.NET controls in web applications.

**CO3:-** Be able to debug and deploy ASP.NET web applications.

**CO4:-** Be able to create database driven ASP.NET web applications and web services

**Paper No. CS508 T Advanced Networking**

**CO1:-** Demonstrate Data Communications System and its components.

**CO2:-** Identify the different types of network devices and their functions within a network.

**CO3:-** Diagnose and resolve problems of a LAN and WAN.

**CO4:-** Familiarity with the basic protocols of computer networks, and how they can be used to assist in network design and implementation

**Paper No. CS601 T Software Quality & Testing**

**CO1:-** Apply modern software testing processes in relation to software development and project management.

**CO2:-** Create test strategies and plans, design test cases, prioritize and execute them.

**CO3:-** Manage incidents and risks within a project.

**CO4:-** Contribute to efficient delivery of software solutions and implement improvements in the software development processes.

**CO5:-** To gain expertise in designing, implementation and development of computer based systems and IT processes

**Paper No. CS602 T Android Application Development**

**CO1:-** Understand both the basic and advanced concepts of Android Development.

**CO2:-** Explain and use key Android programming concepts.

**CO3:-** Build Basic level mobile applications with Java on Android.

**CO4:-** Deploy the application on Google Play

**Paper No. CS603 T Theory of Computation**

**CO1:-** Will apply knowledge of computing and mathematics appropriate to the discipline.

**CO2:-** will function effectively as a member of a team in order to accomplish a common goal

**Paper No. CS604 T Advanced Computer Graphics**

**CO1:-** To make the students familiar with techniques of clipping, three dimensional graphics and three dimensional transformations

**CO2:-** The computer graphics course prepares students for activities involving in design, development and testing of modelling, rendering, shading and animation

**Paper No. CS606 T Programming Language: C#**

**CO1:-** Knowledge of the structure and model of the programming language C #.

**CO2:-** Use the programming language C # for various programming technologies.

**CO3:-** develop software in C # (application)

**Paper No. CS607 T e-Commerce**

**CO1:-** Understand the basic concepts and technologies used in the field of management information systems.

**CO2:-** Be aware of the ethical, social, and security issues of information systems

### CS-111T Computer Fundamental

**CO1:**Knowledge of computer fundamental, CPU and its functionality.
**CO2:**Understanding of block diagram of hardware peripherals.
**CO3:**Understanding the computer based application such as email and video conferencing.
**CO4:**Understanding the concept of software and its types

### CS-112T Digital Electronics

**CO1:**Understand the computer system architecture, working gates and its functionality.
**CO2:**To impart basic knowledge in digital logic and circuit and to introduce basic concepts of data communication.
**CO3:**Learn to design basic logical circuit using commonly used combinational and sequential circuits.

### CS-113T Operating Systems

**CO1:**Gain knowledge of system software program and process.
**CO2:**Understand type of operating system, basic of operating system, evaluation of operating system.
**CO3:**Understand the concept of process. Process control block and thread.
**CO4:**Understand the CPU scheduling non-preemptive and preemptive scheduling algorithm.
**CO5:**Understand the concept of synchronization and deadlock

### CS-114T Programming in C

**CO1:**Understand algorithmic thinking and problem solving and impart moderate skill in programming using C language in an industry standard.
**CO2:**Learn basic features, create, and execute simple C programs using conditional statements, loops and arrays.

### CS-115T Mathematical Foundation

**CO1:**Know how to represent various statement using set, relations, function, permutation and combination, group, graph, and tree.
**CO2:**Use logical notation to formulate and reason about fundamental mathematical concept such as sets, relation, function and algebraic structure.
**CO3:**Model and solve real world problem using graphs and trees.
**CO4:**Apply mathematical logic to solve problem, pigeonhole principle to solve real time problem.

### CS-116T: Programming methodology

**CO1:**Learn the history and type of programming.

**CO2:**Learn various approach of writing program.
**CO3:**Learn to develop simple algorithm and flowchart to solve a problem.

**CS-131T: English communication skill**
**CO1:**Understand the different style of communication.
**CO2:**Understand the effective speaking skills and develops effecting reading comprehensions.
**CO3:**Understand how to write a good personal profile and improve one's presentation skill.
**CO4:**Develop good writing skill.

**CS-132T: Marathi / Hindi**
**CO1:**मराठीतील वैविध्यपूर्ण सुजनाविष्काराचा आस्वाद घेण्याची अभिरुची निर्माण करून कलाकृतीतील सौंदर्य स्थळांचा शोध घेण्याची वृत्ती वाढीस लावणे.
**CO2:**राष्ट्रीय एकात्मता व बंधुभाव वाढीस लागण्यास मदत करणे.
**CO3:**निवडक गद्य व काव्याच्या अनुषंगाने मराठी साहित्यातील विविध प्रवाहांचा परिचय करून घेणे.
**CO4:**उपयोजित मराठीच्या माध्यमातून रोजगाराभिमुख शिक्षण देऊन व्यावसायिक वृत्ती वाढविणे व स्वावलंबी बनवण्यास मदत करणे.

**CS-211T Data Structures**
**CO1:**Ability to understand fundamental data structures like arrays, linked-lists, stack, queues, trees, graphs.
**CO2:**Ability to understand abstract data types.
**CO3:**Ability to program data structures and use them in implementations of abstract data types.
**CO4:**Understanding of basic algorithmic complexity.
**CO5:**Ability to sensibly select appropriate data structures and algorithms for problems and to justify that choice.
**CO6:**Ability to understand searching and sorting algorithms, their implementation and suitable applications.

**CS-212T 8086 Microprocessor**
**CO1:**Functional block diagram of 8086 microprocessor
**CO2:**Functions of each pin of 8086 microprocessor
**CO3:**Use of instructions in different addressing modes
**CO4:**Write an assembly language program.

**CS-213T Operating System-II**
**CO1:**Gain knowledge of Memory Management, Paging and Segmentation.
**CO2:**Understand concept of File, Operation of file, File allocation methods.
**CO3:**Understand Disk fundamental, Disk Scheduling, Disk management.
**CO4:**Understand Dedicated devices, Shared devices, I/O Devices, I/O Hardware, Interrupts
**CO5:**Understand Security Policy Mechanism- Protection and Authentication.
**CO6:**Understand the basic introduction to Android Operating System.

## CS-214T Advance Programming in C

**CO1:**Develop and implement modular applications in C using functions
**CO2:**Develop applications in C using structures and pointers
**CO3:**Design applications using sequential and random-access file processing
**CO4:**Identify the difference between call by value and call by reference.

## CS-215T Numerical Methods M-2

**CO1:**Different number theory algorithms.
**CO2:**Calculate approximate value for using approximation techniques.
**CO3:**Solve numerical problems using different numerical methods.
**CO4:**Write algorithms of different numerical techniques.

## CS-216T Database Management System

**CO1:**Design a database.
**CO2:**Normalize a database.
**CO3:**Create a database perform various operations on database.

## CS-231T English Communication Skill (Soft Skill Development)

**CO1:**Understand the significance and essence of a wide range of soft skills.
**CO2:** Learn how to apply soft skills in a wide range of routine social and professional settings.
**CO3:**Learn how to employ soft skills to improve interpersonal relationships
**CO4:**Learn how to employ soft skills to enhance employ ability and ensure workplace and career success.

## CS-232T Marathi / Hindi

**CO1:**मराठीतील वैविध्यपूर्ण सुजनाविष्काराचा आस्वाद घेण्याची अभिरुची निर्माण करून कलाकृतीतील सौंदर्य स्थळांचा शोध घेण्याची वृत्ती वाढीस लावणे.
**CO2:**राष्ट्रीय एकात्मता व बंधुभाव वाढीस लागण्यास मदत करणे.
**CO3:**निवडक गद्य व काव्याच्या अनुषंगाने मराठी साहित्यातील विविध प्रवाहांचा परिचय करून घेणे.
**CO4:**उपयोजित मराठीच्या माध्यमातून रोजगाराभिमुख शिक्षण देऊन व्यावसायिक वृत्ती वाढविणे व स्वावलंबी बनवण्यास मदत करणे.

# M.Sc CHEMISTRY

## Program Outcome

**PO1:** Identify problems and independently propose solutions using creative approaches, acquired through interdisciplinary experiences, and a depth and breadth of knowledge/expertise in the field of chemistry
**PO2:** To understand basic facts and concepts in Chemistry while retaining the exciting aspects of Chemistry so as to develop interest in the study of chemistry as discipline
**PO3:** To develop problem solving skills. To develop skills in the proper handling of apparatus and chemicals
**PO4:** To be exposed to the different processes used in industries and their applications.
**PO5:** Synthesize complex information appropriate to the discipline
**PO6:** Exhibit disciplined work habits as an individual.
**PO7:** Students will employ critical thinking and the scientific method to design, carry out, record and analyze the results of chemical experiments and get an awareness of the impact of chemistry on the environment, Society and other cultures outside the scientific community.
**PO9:** To build a scientific temper and to learn the necessary skills to succeed in research or industrial field.

# M.Sc CHEMISTRY

## Program Specific Outcome

**PSO1:** To enable the students to learn about the extraction principles and mechanism of some addition reaction.

**PSO2:** The ability to explain chemical nomenclature, structure, reactivity, and function in their specific field of chemistry.

**PSO3:** To enable the students to know about the radio activity, acid and bases, the role of solvent in chemical reactions.

**PSO4:** To learn the different theories of reaction rates and factors affecting reaction rates

**PSO5:** To give an outline of applied organic chemistry and the applications of organic chemistry in various spheres of chemical sciences.

**PSO6:** To be able to define and resolve new problems in Chemistry and participate in the future development of Chemistry

**PSO7:** To impart students a broad outline of the methodology of science in general and Chemistry in particular

## Course Outcome

**Paper No. CHE-101 Analytical Chemistry**

**CO1:**This course will provide an insight into some of the fundamental concepts and Principles those are very essential in the study of spectroscopic methods and analysis of compounds using these techniques.

**CO2:**To learn the concepts of different separation techniques, different types of chromatographic techniques and Gas, HPLC,

**CO3:**To be able to define and resolve new problems on statistical treatment of analytical data

**Paper No. CHE-102 Inorganic Chemistry**

**CO1:**This course gives the student idea about role of essential elements in biological system such as Fe, Cu, Zn, Mn etc.

**CO2:**To understand the general characteristics, synthesis of transition metal complexes

**CO3:**To impart students to learn group theory and symmetry of the elements.

**CO4:**To understand the magnetic properties of complexes and to know how magnetic moments can be employed for the interpretation of their structure

**Paper No. CHE-103 Organic Chemistry**

**CO1:**To predict the outcome and mechanism of some simple organic reactions, using a basic understanding of the relative reactivity of functional groups.

**CO2:**To enable the students to get knowledge about nature of chemical bonding with examples.

**CO3:**To learn reaction mechanism of aliphatic nucleophilic and electrophilic substitution reactions and their intermediates.

**CO4:**To know stereochemistry and various possible conformations of organic compounds and how it affects the reaction outcome

**Paper No. CHE-104 Physical Chemistry**

**CO1:**To enable the students to get a clear idea about chemical dynamics and classical thermodynamics.

**CO2:**Enable the student to get understand the laws of thermodynamics, Adsorption, chemical equilibrium, Ionic equilibrium and biological reactions

**CO3:**To know the basic concepts in classical thermodynamics and to learn the thermodynamic aspects of various processes and reactions.

**CO4:**To enable the students to know concepts and theories in electrochemistry and surface chemistry.

**Paper No. CHE-205 Spectroscopic Methods of Analysis**

**CO1:**The students will understand some fundamental aspects of spectral methods of analysis.

**CO2:**To give the students a thorough knowledge of the different types of spectroscopic techniques such as UV, IR, NMR, Mass, C-13 and combined problems on the basis these data.

**CO3:**The students will understand some fundamentals of microwave, vibrational and Raman spectroscopy.

**CO4:**To learn about photoelectron spectroscopy and thermal methods of analysis.

**Paper No. CHE-206 Inorganic Chemistry**

**CO1:**To provide an insight into the characteristics of different types of solutions and electrochemical phenomena.

**CO2:**To learn electronic spectra and magnetic properties of metal complexes.

**CO3:**To give the students a thorough knowledge of the different theories to explain the bonding in coordination compounds, metal carbonyls and metal notrosyls.

**CO4:**To impart essential theoretical knowledge on spectroscopic term symbols.

**CO5:**Students to learn about Dioxygen and Dinitrogen complexes.

**Paper No. CHE-207 Organic Chemistry**

**CO1:**To make students capable of understanding and studying Aromatic electrophilic and Nucleophilic substitution

**CO2:**To understand the role of various reaction intermediates like carbanion, carbocation, carbenes, radicals in reactions.

**CO3:**To impart knowledge addition to Carbon- carbon bond and carbon – heterobonds.

**CO4:**To make students capable of understanding and studying different elimination reactions and rearrangements with mechanism

**Paper No. CHE-208 Physical Chemistry**

**CO1:**To study phase diagrams and elementary idea of crystallography and structure of crystal.

**CO2:**Students to learn about photochemistry and terms involved in photochemical reactions.

**CO3:**To impart knowledge to the students about the quantum chemistry.

**CO4:**To verify the some important principles in physical chemistry and to determine various physical properties

**Lab Course Paper-209, 210, 211, 212**

**CO1:**To enable the students to know about principles and applications of Analytical techniques, Evaluation of Analytical data, Statistical texts and data, Theory of Quantitative Analysis, Gravimetric methods

**CO2:**Enable the students to estimate the binary mixtures of metallic ions by volumetric and gravimetric methods

**CO3:**Students will gain an understanding of methods of analysis related to chemical analysis goals such as detection of elements.

**CO4:**To develop skills required for the qualitative analysis of organic compounds, determination of physical constants.

**CO5:**To impart the students a thorough knowledge of Systematic qualitative analysis of mixtures containing two acid and two basic radicals

**Paper No. 313 Str. Elucidation by Spectral Methods**

**CO1:**To give the students a thorough knowledge of the different types of spectroscopic techniques such as UV, IR, NMR, Mass, C-13 and combined problems on the basis these data.

**CO2:**To impart a thorough knowledge of the fundamentals of microwave, infra red, Raman, electronic and magnetic resonance spectroscopy.

**CO3:**To learn the instrumentation and application of Mossbauer, ESR spectroscopic techniques

**Paper No. CHE-314 Organic Synthesis**

**CO1:**To impart a thorough knowledge of the different Reagents and organomettalic compounds used in organic synthesis and their application in organic synthesis.

**CO2:**This course will give insight into the processes involved in oxidation , reduction of reactions.

**CO3:**This course gives student knowledge about the predict the products of different chemical reactions.

**Paper No. CHE-315 Asymmetric Synthesis & Bio-organic Chemistry**

**CO1:**This course gives student knowledge about the synthesis of different enzymes and co enzymes and their analytical study.

**CO2:**To understand the functions and applications of bioorganic compounds, supramolecular and biomimic chemistry to students.

**CO3:**To have exposure to various emerging new areas of assymetric synthesis in organic chemistry

**Paper No. CHE-316 Photo, free radical & Pericyclic Reaction**

**CO1:**To enable the students to learn about types of pericyclic reactions and its applications.

**CO2:**To understand the importance of free radicals, carbanion and carbonations in chemistry.

**CO3:**This course gives student knowledge about concept of photochemistry and different photochemical reactions and applications

**Paper No. CHEO-417 Org. Synthesis Retrosynthetic approach**

**CO1:**Understanding the need of modern tools in chemical sciences such as C-C disconnections and reactions.

**CO2:**Interpretation of collected information and use of information Ring synthesis with applications.

**CO3:**This course gives detail knowledge to the student about organic synthesis and retire synthesis approach.

**Paper No. CHEO-418 Advance Organic & Heterocyclic Chemistry**

**CO1:**To enable the students to understand and study Organic reaction mechanisms.

**CO2:** To acquaint knowledge on organic named reactions and their application in synthesis.

**CO3:**To enable the students to understand and study different types rearrangements with mechanism,

**CO4:**To acquaint knowledge on four, five and six member heterocyclic compounds, its synthesis and reactions.

**Paper No. CHEO-419 Chemistry of Natural Products**

**CO1:**This course discussed about the synthesis and properties of these Natural Products and their importance.

**CO2:**This course also discusses details of synthesis, structure of some specific molecules such as terpenoids, alkaloids, steroids, flavones, anthocynanin and biogenesis

**Paper No.CHEO-420 Medicinal Chemistry**

**CO1:**To enable the students to understand and study different types of medicinal drugs, its activity and their importance for human being.

**CO2:**This course discussed about the synthesis and properties of medicinal drugs and their importance.

**CO3:**To understand the effects and side effect of different types of drugs.

**CO4:**To enable the students to know about pharmacokinetics and pharmacodyanics.

**Lab Course Paper-209, 210, 211, 212**

**CO1:**To enable the students to know about principles and applications of Analytical techniques, Evaluation of Analytical data, Statistical texts and data, Theory of Quantitative Analysis, Gravimetric methods

**CO2:**Enable the students to estimate the binary mixtures of metallic ions by volumetric and gravimetric methods

**CO3:**Students will gain an understanding of methods of analysis related to chemical analysis goals such as detection of elements.

**CO4:**To develop skills required for the qualitative analysis of organic compounds, determination of physical constants.

**CO5:**To impart the students a thorough knowledge of Systematic qualitative analysis of mixtures containing two acid and two basic radicals

**Lab Course Paper -421,422,423,424**

**CO1:**Students will gain an understanding of methods of analysis related to chemical analysis such as detection of function groups, physical constants, monitoring reaction and preparation derivatives.

**CO2:**The students will develop basic skills in the techniques of crystallization, distillation, TLC

**CO3:**To learn the separation and purification of an organic mixture by chemical/solvent separation methods.

**CO4:**Enable the students for synthesis of organic compounds, its characterization and determination of physical constants through project which creates research skills

# B.A. PHYSICAL EDUCATION (OPTIONAL SUBJECT)

## Program Outcome

**PO1:**Student will understand of the sub disciplines that make up the field of Physical Education/Kinesiology.

**PO2:**Students knowledge about importance of regular exercise and healthy eating

**PO3:**To know various types and methods of physical fitness

**PO4:**Identify the concepts of sports management

# Course Outcome

**Paper No. 101 Philosophical, Sociological Foundation and History of Physical Education**

**CO1:**Philosophical needs to be taught by an active, engaging by physical educator who promotes lifelong learning to all students

**CO2:**Socialization is important in the process of personality formation

**CO3:**Socialization is the process by which children and adults learn from others

**CO4:**Students will know ancient and modern history of physical education

**Paper No. 102 Principles and Recent Development of Physical Education**

**CO1:**The principal of physical educational activity is controlled by the manipulation of frequency intensity, time and type of exercise

**CO2:**To know principles of physical education through individuals and group of people

**Paper No.201 Health Education and Recreation in Physical Education in Physical Education and Sports**

**CO1:**To know learning experiences designed to help students

**CO2:**To include the physical games

**CO3:**Role of recreation on the human development.

**Paper No. 202 Officiating, Coaching and training methods in Physical Education &Sports**

**CO1:**To know Importance and principles of officiating,

**CO2:**Relationship of official and coach with management, players and spectators, Measures of improving the standards of officiating and coaching

**CO3:**To improve training methods and skills in students

**Paper No. 301 Ancient and Modern History of Physical Education and Sports**

**CO1:**To know Physical Education in ancient India

**CO2:**To learn about Physical Education centers in India

**CO3:**Government bodies and policies formation in India

**CO4:**Scheme and awards related to Physical Education

**Paper No.302 Sports Psychology and Management in Physical Education**

**CO1:**To learn mental skill for enhanced performance

**CO2:**Management of Physical Education and sports

**CO3:**The learn leadership, decision making and problem solving ability

**CO4:**To know facilities and equipments

**Paper No.303 Organization, Administration and Supervision in Physical Education, Youth Welfare and Youth Services**

**CO1:**To know objectives of organization and administration

**CO2:**To learn concepts, objectives of youth welfare

**CO3:**Objectives of intramural and extramural programs

**CO4:**Organizing and conducting tournaments

**Paper No.304 Anatomy, Physiology and Kinesiology of Physical Education**

**CO1:**To know cell, blood composition, circulation

**CO2:**Properties and functions of human physiology

**CO3:**To study body systems like respiratory system, muscular system etc

**CO4:**To study fundamentals of kinesiology

PRINCIPAL

Aurangabad