

1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum.



Name of Program	Sem	Course	Course name	Integrates Crosscutting Issues
B.A. Second Year Sem-	Sem-III and IV	Political Science	Indian government and politics	1. Indian Constitution 2. Constitutional Provision 3. Legislator 4. Executive & Judiciary
B.A. Second Year Sem-SEC	Sem-IV	Political Science	Civil Services	1 Civil Services Training of Civil Servants, Delegated Legislation Union public Service
Gandhian Study Centre		Political Science		1 Majhe satyache prayog Va Hinda Swarajy 2 Mahatma Gandhi che tavadyan
BSC FY	SEM- I	Statistics	Descriptive Statistics and computing	
BSC SY	SEM III	Statistics	Exact Sampling Distribution	Chi-Square test or testing of hypothesis
B.Sc. F.Y.	Sem-I	Microbiology	Introductory microbiology	Beneficial and harmful role of microorganisms in Agriculture, human and animal health, industry and genetic engineering
B.Sc. S.Y.	Sem-III	Microbiology	Applied Microbiology	Air Microbiology, water microbiology, sewage microbiology, milk microbiology
B.Sc. S.Y.	Sem-III	Microbiology	Food soil microbiology	Soil microbiology and carbon cycle, elemental transformation in soil, microbial interaction association and ecology
B.Sc. S.Y.	Sem-III	Microbiology	Medical microbiology	Bacterial and viral infections
B.Sc. S.Y.	Sem-III	Microbiology	Public health microbe	Scope of public health microbiology, water microbiology, water and food quality monitoring
B.Sc. S.Y.	Sem-III	Microbiology	Diagnostic microbiology	Examination of clinical samples, diagnosis of pathogens
B.Sc. T.Y.	Sem-V	Microbiology	Molecular biology	Molecular techniques and applications
B.Sc. T.Y.	Sem VI	Microbiology	Industrial microbiology	Scope of Industrial microbiology, Microbe in Industrial microbiology, Fermentative production
B.Sc. T.Y.	SEM V	Microbiology	SEC- Enzyme Technology	Applications of enzymes in various industries, enzyme production, purification and application
B.Sc. T.Y.	SEM VI	Microbiology	SEC- Bioprocess technology	Agro-based based bioprocess, industrial effluent treatment, food, and dairy bioprocesses
B.Sc. F.Y.	Sem-I	Physics	Mechanics	Conservation of energy
B.Sc. S.Y.	Sem-III	Physics	Heat and thermodynamics	See beck effect
B.Sc. S.Y.	Sem-III	Physics	Waves and oscillations	Frequency and period of vibrations of a string Acoustics and ultrasonics, applications of ultrasonic waves
B.Sc. S.Y.	Sem-III	Physics	Relativity	Mass energy relations
B.Sc. S.Y.	Sem-IV	Physics	Optics and lasers	Geometrical optics, coaxial lens, Huygens eyepiece, Ramsden eyepiece, Laser, He-Ne laser
B.Sc. S.Y.	Sem-IV	Physics	Semiconductors	LED, Types of semiconductor
B.Sc. T.Y.	Sem-V	Physics	SEC-Renewable energy and harvesting	Solar water heater, solar cooker, solar cell, wind energy, harvesting, ocean energy, fossil fuel and alternate sources of energy, need of renewable energy, non-conventional energy sources,
B.Sc. T.Y.	Sem-VI	Physics	Atomic, molecular and nuclear physics	Particle accelerator, vandegraff generator, linear accelerator, cyclotron, synchrotron



B.SC. F.Y.	SEM- II	Mathematics	Integral calculus	Its application to find area and volume
B.SC. S.Y.	SEM -IV	Mathematics	Partial differential Equation	Mathematical formulation in physics, engineering and mathematics
B.SC. T.Y.	SEM- V	Mathematics	Mechanics	Knowledge of motion, force and their relation which is important in applied mathematics.
B.SC. T.Y.	SEM-V	Biophysics	Radiation Biophysics	Radiobiology: Radiation syndrome in human being, Radioisotopes in Biology
B.SC. T.Y.	SEM-VI	Biophysics	Bioinformatics and Structural Biology	Genomics and Phylogenetics; Drug designing
B.SC. T.Y.	SECBP-I	Biophysics	English Communication	Speaking Skill, Reading and Understanding
B.SC. T.Y.	SEM-VI	Biophysics	Medical Biophysics	Electrophysiology: ECG,EOG,EMG,EEG,ERG Medical Imaging: X-ray, CT-Scan, MRI, Nuclear Medicine: Invitro and in vivo imaging, Organ scanning, Radioimmunoassay.
B.SC. S.Y.	SEM-III	Biophysics	Molecular Biology	Applications of rDNA technology in medicine and agriculture.
B.SC. S.Y.	SEM-IV	Biophysics	Molecular Enzymology	Use of Enzyme in Food, dairy, leather and drug design.
B.SC. S.Y.	SEM-IV	Biophysics	Physiological Biophysics (PR)	Blood pressure measurement by Sphygmomanometer
B.SC. F.Y.	SEM-I	Biophysics	Molecular Biophysics	Biophysics of water.
B.SC. T.Y.	SEM-V	Zoology	Ecology & Zoogeography	Components of an Ecosystem Population Ecology Pollution - Sources, effects and control Energy resources- Conventional & Non-Conventional
B.SC. T.Y.	SEM-V	Zoology	Pisciculture	Fish farm Engineering Fish seed resources Fishing Methods Fish Preservation and Processing Fish By products
B.SC. T.Y.	SEM-VI	Zoology	Ethology, Biometry and Bioinformatics	Social Behavior in Insects- Honey Bee
B.SC. T.Y.	SEM-VI	Zoology	Aquaculture	Integrated Fish Farming Culture methods- Pen and Cage Sewage Fed Fish Culture Larvivorous Fishes Culture of Non fin Fish Organism Mariculture
B.SC. T.Y.	SEM-V	Zoology	SEC	Vermiculture and Vermicomposting
B.SC. T.Y.	SEM-VI	Zoology	SEC	Sericulture
B.SC. S.Y.	SEM-III	Zoology	SEC	Hematology
B.SC. S.Y.	SEM-IV	Zoology	SEC	Apiculture
B.Sc. F.Y.	SEM-I	Zoology	Biodiversity of Invertebrates	Economic Importance of Porifera Economic Importance of Insects Economic Importance of Mollusca
B.Sc. F.Y.	SEM-I	Zoology	Biodiversity of Chordates	Economic Importance of Fishes Importance of Snake venom, Migration of Birds
B.Sc. F.Y.	SEM-II	Zoology	Developmental Biology of Vertebrates	Stem cell, Assisted Reproductive Technology
B.A. F.Y.	Sem-I	Marathi-I	Adhunik Marathi katha vigmaya	Atithidevo bhav : Vaman Chorghade Kidilele mansa : Gangadhar Gadgil Valwan: R R Borale Nirwasit: Avinash Dolas Kuradiche dandae: Shriram Gudekar Varsa: Saniya Shudhabijapoti :Rekha Baijan Barkat: Sahil shaikh



B.A. F.Y.	Sem-I	Marathi-II	Madhyayugin ani adhunik marathi padya vagamaya	<p>Kavitatun pratat zaley manvi mulayache akalan Pappya na avde sant sangti : Sant Nandedkar Ghanu vaje ghun ghuna : Sant Dyneshwar Vithu maza lekur wala: Sant Janabai Devnahi rup deva nahi nam: Sant chkhama Vinchu chawala : Sant eknath Don abhang: Sant Tukaram Don abhang- Sant Manmanth shivling swami Dhig dhig dhig jine thuze re : Vaman Pandit Shivaji cha powada: Mahamata jytirao phule Amhi kon : Keshev sut Ragadne : Bahinabai Chaudhary Avdunbar: Balkavi Kana: Kusumagraj</p>
B.A. F.Y.	Sem-II	Marathi-III	Marathi kathatma sahitaya	<p>Mapurshyanchya anubhutinvar prakesh takne Samaj parishthitivar prakesh takne Manvi mulayanchi rujvunuk karne Anguli malachi Dhamma diksha: Dr Babasaheb Ambedkar Chatrapati Shivaji Maharajache gun sankirtan: Krushnrao Keluskar Advitiya swatantra youdhya: Sanjay Sonwani Mi shlet jato: Laxman Mane Zaptlepan: Pratiksha lonkar Shevanticha kharata: Shri m mate Marhathwadayacha dushkal: Sushil Daskate</p>
B.A. F.Y.	Sem-II	Marathi-IV	Adhunik marathi kavita	<p>Marksvadi, Ambedkarvadi, Streevadi Kavitechya janivacha abhyas karne. Kavya pravahatil pratatlelaya manvi mulayanche akalan</p>
				<ol style="list-style-type: none"> 1. Kunachya khandyavar: Arati Prabhu 2. Daan: Grace 3. Dukhacha ankush: Bhalchandra nemade 4. Bhvishacya garbhatlya balache rudan : shachandra muktibodh 5. Tovar tula mala: Narayan Surve 6. Ajun thoda vel: Namdev dasal 7. Jag badal ghaluni ghav: Annabhau sathe 8. Punha ekda: Yeshwant Manohar 9. Halad lavaya: Laxman Malgirwar 10. Bail daulaticha dhani: Ramdas kedar 11. Birsa Munda: Bhujang Meshram 12. Therigatha esvi san don hazar saha: Pradnaya daya pawar 13. Nishnath: Sarika ubale paralkar 14. Ase kase manata yeel: F. M. Shahajinde 15. Mi Tekle nahit hat: Sk. Ekbal Binne 16. Elgar : Suresh Bhatt 17. Punyasholak ahilyabai holkar: S. L. Naik
B.A. F.Y.	Sem-II	Marathi (SL)-I	Aksharleni	<ol style="list-style-type: none"> 1. Sashik rakshan : mhain Bhatt 2. Bhavi jivnachi ubharani vidyapithat hote: Dr. Babasaheb Amedkar 3. Padri padal pavitra zala : Himmatrao Bavaskar 4. Zada lav nara manus : Makrand Kulkarni 5. Samyasi sadar whave: Sant savata mali 6. Bikat vat vahivat nasavi: Anant fandhi 7. Aichi athavan: Madhav Jullian 8. Mansa ethe mi: Vaman dada Kardak 9. Utrai : Govind Kale 10. Hi pruthvi streelingi ahe: P Vithal 11. Sup ani jate : Swati Shinde
B.A. F.Y.	Sem-II	Marathi (SL)-II	Sahitaya shilp	<ol style="list-style-type: none"> 1. Zelaya : Venkeyetesh Madgulkar 2. Rag: Kailash Satyarthi 3. Aai thuyashivay : Ram Shevdikar 4. Eid: Mohib Kadre <p>Poem:</p> <ol style="list-style-type: none"> 1. Sathi chi gazal: Vindda karandikar 2. Dr. Babasahed Ambedkar: J V Pawar 3. Tichya manat utarne: Suman Kesari 4. Samata : Miland Bagul 5. Jivani : Priya Dharurkar 6. Vasaneche magar mithi: Vinayak Yeole 7. Talab: Suchita Khalla



B.A. S.Y.	Sem-III	Marathi-V	Nivdak marathi gadya	Manvi Mulachi rujvan 1. Chatrapati Shivaji Maharaj yanche 2. Vivekanand: Dharma andi Vidyanan 3. Ata amchya dhadavar: A H Salunke 4. Ughada darvaja: Ramraje Atram 5. Maza sakshatkari rhudayrog: Abhay Bang. 6. Marathwadyache Gandhi: Gangaprasad Agarwal Uttam Suryavanshi
B.A. S.Y.	Sem-III	Marathi-VI	Marathi Natyatma sahitaya	1. Khaprya chor: Annabhau Sathe 2. Jalsa: Bhimrao Kardak 3. Yughant: Mahesh Yelkunchwar 4. Shantata kort chalu ahe: Vijay Tendulkar 5. Mulgi zali ho: Jyoti Mhapsekar 6. Varad nighalaya landania: Laxman Despande 7. Global Adgaon: Anil kumar Salve
B.A. S.Y.	Sem-III	Marathi-SL (III)	Akshar vidya	1. Hatticha Drushatant: 2. Sant Gadgebaba Kirtan 3. Dr. A P J Abdul Kalam-Aradhan-Agni pank 4. Doctori satyakatha: J G Wadkar 5. Bhrestachara virudha ladha: Vidur Mahajan 6. Yeshodhara : Karuna Jamdhade Poem 1. Nako Dev raya ant ata pahu: Sant Kanopatrha 2. Bai me lihne shickle: Sant Janabai 3. Kuthe Daba dharun basle ahe tufan: Vilas Vaidhya 4. Saravan Mahina ala ki: Ravichandran Hadsankar 5. Mazya hati nasti lekni: Nagraj Manjule 6. Kin kin Ghungrachi: Hanumant Chandgude
B.A. S.Y.	Sem-IV	Marathi-VII	Nivdak Kadambari Wangmaya	1. Natrang (Samajik kadambari): Anand yadav 2. Tamrapat (Rajkiya kadambari): Rangnath pathare 3. Bra (Shtrivadi Kadambari): Kavita Mahajan 4. Mi savitri Jyotirao : (Wyaktichitranatmak kadambari) Kavita Murukar 5. Sakal dakshin dhigdhadhipati (ettihisak kadambari): Panditrao Deshmukh 6. Fesathi (Atmakathnatmak): Navnath Gore
B.A. S.Y.	Sem-IV	Marathi-VIII	Vaicharik Sahitya	Manvi mulayacha akalan 1. Lokhitwadi 2. Mahatama Jyotirao Fule 3. Tarabai Shinde 4. Maharaja Sayajirao Gaikwad 5. Prabodhankar Thakre 6. Govind Pansare 7. Shared Patil 8. Eshwant Manohar
B.A. S.Y.	Sem-IV	Marathi-SL (IV)	Sahitya sarita	1. Shtkaryachi sthithi: Mukundrao Patil 2. Mahatma Basweshwer: Janardhan Waghmare 3. Khillarya : Bhaskar Badhe 4. Tianmen chowik: Urmila Chkurkar Poem 1. Mungi udali akashi: Sant Mukatabai 2. Abhang: Sant Namdev 3. Tye na tine kadhe olkhile: B Raghunath 4. Kaljachya Viskatlelya chindhya: Uttam kolgaonkar 5. Me vat pahatoya : Shashikant Hingonekar
B.A. T.Y.	Sem-V	Marathi-IX	Madhyaugin marathi wangmayacha etihis	Madhyaugin kalkhandatil wangmayachya samajik tatha sanskrutik parshwabhumicha abhyas karne Madhyaugin kalkhandatil wangmayatun pratat zalela manvi mulyanche aklan 1. Lila charitra 2. Sutrapath 3. Drushatant path 4. Sathigrantha 5. Abhangrachana: Sant Namdev 6. Dhnyeshwari, Amrutnubhav: Changdeo Pashashti. Abhang rachana: Sant Dhnyaneshwar 7. Sant Namdev kalin Sant-Sant Nivrutinath, Sant sopandev, sant muktabai, sant janabai, sant chokhamela, sant karmamela, sant kanhopatra, sant narhari sonar, sant sena nahvi, Sant Gora kumbhar, Sant Savtamali, 8. Mahatma Basweswer-Nivdak vachne 9. Sant eknath-Eknathi Bhagwat, Rukmini Swyamwar, Bhavarth Ramayan, Bharude, Goulani

B.A. T.Y.	Sem-V	Marathi	SEC-III Marathi Bhashik kaushyalaya vikas	1. Marathi Bhashik kaushyalaya -Vachan, Lekhan, bhashan, Sambhashan 2. Vyavsayak sandhi-Patrarakita-Prasadharmakarya
B.A. T.Y.	Sem-VI	Marathi-XI	Madhyayugin marathi vangmayacha ethihas	Samajik taha sansrutik parswabhumiचा अभ्यास करणे Madhyaugin kalkhandatil vagmayatun prakazaleya manvi mulyanche akaleni 1. Sant Tukraram- Abhang rachana 2. Sant Ramdas-Dasbodh, Manache shlok 3. Panditi kavya Muktheswer, Vaman Pandit, Raghunath pandit, Shridhar Pandit, Moro panth 4. Shahiri wangmaya-Ram Joshi, honaji Bala, Ananti fandi, 5. Bakhar Wangmaya-Krushnaji Anant Sabhasadanchi bakhar, Bhausahaebachi bakhar
B.A. T.Y.	Sem-VI	Marathi	SEC-IV Marathi Bhashik kaushyalaya vikas	Deha boliche mahatva samjauin sangne Dehabolicha sambhashanth kasa vapa karava ya baddal chi mahiti. Vividh prkarchaya karyakramanche aayojan Vividh kshetratil vyavsatyatil sandhi Dehabolichaya vaparaton prabhavi sambhashan 1. Karyakarmache ayojan- sanskrutik, samajik, shaikshnik 2. Dehaboliche pailu 3. Sambhashan kaushalya che gunvishes 4. Prabhavi sambhashanat dehabolicha vapar 5. Sambhashan kaushalya vikas hotil asha . karyakramache ayojan karne
B.Sc T.Y	Sem V	Chemistry	Organic & Inorganic Chemistry	Synthesis and uses following Drugs 1.Paludrine 2.Paracetamol 3.Sulphanilamide 4.Aspirin 5.Benzocaine 6.Isoniazide 7.Sulphadiazine 8.Tolbutamide Synthetic Dye quality of Dye, classification of based on method of application Vitamins :introduction and classification source, Pesticides :introduction and classification The chemistry of elements in medicine
B.sc ty	SEM-V	Chemistry	SEC	APPLIED ANALYTICAL CHEMISTRY Analysis of soil, Analysis of fuels
B.sc ty	sem-vi	Chemistry	Physical inorganic chemistry	Bioinorganic chemistry Essential and trace elements in biological process Biological role of alkali and alkaline earth metal
B.sc ty	SEM-VI	Chemistry	SEC	Spectroscopic technique of and cosmetic preparation
B.sc sy	SEM-III	Chemistry	Organic and inorganic	Oil, fats, soaps and detergents
B.sc sy	SEM-IV	Chemistry	Organic and inorganic	Manufacturing Of Sucrose From Sugarcane
BASY	SEM. IV	English Optional	Women's Literature	Objectives of the course: Introduce students to Women's Writing, through the study of various literary genres written by women of different nationalities. To equip students with the knowledge and skills to read and comprehend texts written by women. To enable the students to identify and describe distinct literary characteristics of women's literature. Intended outcomes of the course: 1) Students will be able to critically analyze the structure and meaning of various literary works written by women authors. 2) Students will acquire knowledge of the major concerns of women through a reading of the representative works from different nations. 3) Students will be acquainted with the richness and depth of the female experience as depicted through their literary representations.





BASY	SEM. III	English (SEC)	Skills for Employability-I	<ol style="list-style-type: none"> 1. Self-discovery and Career Planning 2. English – the language for global communication 3. Adapting to the work culture: <ol style="list-style-type: none"> a) Govt./Private/Corporate culture b) Opportunities in Govt./Private/Corporate sectors c) Manners and etiquettes to be adopted in Govt./Private/Corporate sectors 4. Vocabulary Building for Career readiness
BASY	SEM-IV	English (SEC)	Skills for Employability-II	<ol style="list-style-type: none"> 1. Introducing oneself 2. Group dynamics 3. Conversation skills: <ol style="list-style-type: none"> a) Questioning skills b) Telephone etiquettes c) Interview techniques 4. Verbal and non-verbal communication
BATY	SEM-V	English (SEC)	Life Skills-I	<ol style="list-style-type: none"> 1) Critical and Lateral thinking 2) Civic skills and social responsibility 3) Self-awareness, mindfulness and self-esteem: <ol style="list-style-type: none"> a) Decision Making b) Time Management c) Goal Setting 4) Gender Sensitization
BATY	SEM-VI	English (SEC)	Life Skills-II	<ol style="list-style-type: none"> 1) Importance of Digital Literacy 2) Online Transactions and Search Skills 3) ICT tools: <ol style="list-style-type: none"> a) Massive Open Online Courses (MOOC) and their utility b) Generic Tools c) P2P Networking and its uses 4) Cyber security and Network Safety
BAFY	SEM-I	ECONOMICS	Economy of Maharashtra	Sex ratio, literacy, Green revolution Special Economic Zone
BASY	SEM-IV	ECONOMICS	Economics of development and environment	<ol style="list-style-type: none"> 1) Role of agriculture in economic development 2) Role of industrialization in economic development 3) Environment and economic development 4) Concept and indicators of sustainable development 5) forest resources: meaning and importance 6) water resources: meaning and importance 7) food resources: meaning and importance 8) pollution and economic development
BATY	SEM-VI	ECONOMICS SEC	ENTREPRENEURSHIP DEVELOPMENT	<ol style="list-style-type: none"> 1) Familiarization with various uses of human resource for earning dignified means of living 2) Role of family and government in the growth of an entrepreneur
BAFY	SEM-I	HINDI	KATHA SAHITYA	<ol style="list-style-type: none"> 1) Upnyas- Khanjan nayan 2) Kahaniya- sujan bhagat, malbe ka malik, gend
BAFY	SEM-I	HINDI	NATAK TATHA EKANKI	Dharati aaba Ekanki-seema rekha, ashok van, rid ki haddi
BAFY	SEM-I	HINDI	SL HINDI	Sahitya Bharati
BAFY	SEM-II	HINDI	KATHA SAHITYA	<ol style="list-style-type: none"> 1) Upnyas- Pachpan khambe lal divare 2) Kahaniya- nirvasit, guruh pravesh, akal mratyu
BAFY	SEM-II	HINDI	NATAK TATHA EKANKI	<ol style="list-style-type: none"> 1) Abhang gatha 2) Ekanki- char vahe, baa aur bapu, shahadatt
BAFY	SEM-II	HINDI	SL HINDI	Sahitya Bharati
BASY	SEM-III	HINDI	HINDI OPTIONAL	Madhyayugin Kavya
BASY	SEM-III	HINDI	HINDI OPTIONAL	Nibandh tatha kathettar gadya
BASY	SEM-III	HINDI	SL HINDI	kathettar gadya
BASY	SEM-IV	HINDI	HINDI OPTIONAL	Aadhunik kavya
BASY	SEM-IV	HINDI	HINDI OPTIONAL	Nibandh tatha kathettar gadya
BASY	SEM-IV	HINDI	SL HINDI	Natak-vima