



**Gondwana University, Gadchiroli**  
**NEP 2020 U.G. PROGRAMME SESSION 2024-25**  
**Faculty of Science & Technology**  
**Programme Name - B.Sc. Sem-II**

| Sr. No. | Course Category | Subject name   | Total Credit | Teaching Scheme (Hrs) |            |            | Examination Scheme |     |            |               |                         |           |    |            |               |     | Total Marks |
|---------|-----------------|--|--------------|-----------------------|------------|------------|--------------------|-----|------------|---------------|-------------------------|-----------|----|------------|---------------|-----|-------------|
|         |                 |  |              |                       |            |            | Theory             |     |            |               |                         | Practical |    |            |               |     |             |
|         |                 |  |              | The ory               | Practic al | Total Hrs. | UA                 | CA  | Total Mark | Min. Passi ng | Duration of Exam (Hrs.) | UA        | CA | Total Mark | Min. Passi ng |     |             |
| 1       | Gr Subject-II   | Select any one Subject from Annexure –I other than the subjects taken in group subject -I      | 04           | 04                    | --         | 04         | 80                 | 20  | 100        | 40            | 03                      | --        | -- | --         | --            | 100 |             |
| 2       | Gr Subject-III  | Select any one Subject from Annexure –I other than the subjects taken in group subject –I & II | 04           | 04                    | --         | 04         | 80                 | 20  | 100        | 40            | 03                      | --        | -- | --         |               | 100 |             |
| 3       | OE              | Group-A (Any one from Annexure- VII)   | 02           | 02                    | --         | 02         | 40                 | 10  | 50         | 20            | 02                      | --        | -- | --         | --            | 50  |             |
|         |                 | Group-B (Any one from Annexure- VIII)  | 02           | 02                    | --         | 02         | 40                 | 10  | 50         | 20            | 02                      | --        | -- | --         | --            | 50  |             |
| 4       | VSC *           | Practical Course will be based on group Subject II and III                                     | 02           | --                    | 04         | 04         | --                 | --  | --         | --            | --                      | 30        | 20 | 50         | 25            | 50  |             |
| 5       | SEC             | Any one from Annexure- IX  | 02           | 02                    | --         | 02         | 40                 | 10  | 50         | 20            | 02                      | --        | -- | -          | -             | 50  |             |
| 6       | VEC             | Audit course(Any one from Annexure-X)  | 02           | 02                    | --         | 02         | --                 | 50  | 50         | 20            | 02                      | --        | -- | --         | --            | 50  |             |
| 7       | AEC             | English/Marathi/Hindi/Bengali/Pali Annexure - XI   | 02           | 02                    | --         | 02         | 40                 | 10  | 50         | 20            | 02                      | --        | -- | --         | --            | 50  |             |
| 8       | CC              | NCC/NSS/Yoga/Sports(Any one)   | 02           | --                    | 04         | 04         | --                 | --  | --         | --            | --                      | --        | 50 | 50         | 25            | 50  |             |
| Total   |                 |  | 22           | 18                    | 08         | 26         | 320                | 130 | 450        | 180           | 16                      | 30        | 70 | 100        | 50            | 550 |             |

**\*Shall be based on Group Subject-I**

**Note(s):**

- 1) The Students shall undertake total three different subjects which shall include one each from Group Subject –I, Group Subject-II and Group Subjects-III without repeating the subject
- 2) From Sem-III onwards out of the above three Subjects, the Students shall select one Subject as a major and one Subject as a minor as per Government letter No. Ø- , ubZh2022@i Ø-09@fof k&3 f kd kufnukd 13 epZ 2024- As per AEC is concerned, those Students Selected English as a AEC in 1<sup>st</sup>Sem, shall select Marathi/ Hindi/Bengali/Pali in the II<sup>nd</sup>Sem and Vis-a Versa
- 3) As per open elective (OE)is concerned, students shall opt one subject from Group-A and one from Group-B and It is to be Chosen Compulsory from Faculty other than that of the core/Major subject
- 4) Generic IKS will be common for all Faculties in the first Semester as per Government letter No. Ø- , ubZh2022@i Ø-09@fof k&3 f kd kufnukd 25t kusjh 2024-
- 5) VSC Shall be based on Group Subject.

## ANNEXURE-I

### LIST OF CORE SUBJECTS FOR SUBJECT GROUP-I, SUBJECT GROUP-II AND SUBJECT GROUP-III

| Sr No | Name of Faculty                   | Core Group of Subject | Name of subject   |
|-------|-----------------------------------|-----------------------|---|
| 1     | Faculty of Science and Technology | Computer Science      | Information Communication Technology                                    |
|       |                                   |                       | Structure Programming with C  |
|       |                                   |                       | Operating System  |
| 2     |                                   | Environmental Science | Introduction to Environmental Science                                   |
|       |                                   |                       | Ecology   |
|       |                                   |                       | Basic of Environmental Science  |
| 3     |                                   | Chemistry             | Basic Inorganic Chemistry   |
|       |                                   |                       | Basic Organic Chemistry   |
|       |                                   |                       | Fundamentals of Chemistry   |
| 4     |                                   | Mathematics           | Differential Calculus   |
|       |                                   |                       | Integral calculus   |
|       |                                   |                       | Advance calculus  |
| 5     |                                   | Microbiology          | General Microbiology and Microbial Technique                            |
|       |                                   |                       | Biochemistry  |
|       |                                   |                       | Biotechnology   |
| 6     |                                   | Botany                | Cryptogrammic Botany-I  |
|       |                                   |                       | Cryptogrammic Botany-II   |
|       |                                   |                       | Economic Botany   |
| 7     |                                   | Electronics           | Semiconductor devices and circuits                                      |
|       |                                   |                       | Digital Electronics   |
|       |                                   |                       | Basics Electronics  |
| 8     |                                   | Biochemistry          | Physiological Biochemistry  |
|       |                                   |                       | Cell Biology and Biomolecules   |
|       |                                   |                       | Clinical Biochemistry and Immunology                                    |
| 9     |                                   | Geology               | General Geology and Mineralogy  |
|       |                                   |                       | Crystallography and Optical Mineralogy                                  |
|       |                                   |                       | Physical Geology  |
| 10    |                                   | Biotechnology         | Cell Biology  |
|       |                                   |                       | Fundamentals of Microbiology  |
|       |                                   |                       | Biomolecules  |
| 11    |                                   | Zoology               | Life and diversity of animals non Chordate(Protozoa to Ammelida)        |
|       |                                   |                       | Life and diversity of animals non Chordate(Arthropoda to Hemichoradate) |
|       |                                   |                       | Environmental Biology   |
| 12    |                                   | Physics               | Gravitation, Oscillation and Properties of matter                       |
|       |                                   |                       | Magneto Statistics and Electromagnetics waves                           |
|       |                                   |                       | Vector analysis and Electro statistics                                  |
| 13    |                                   | Home Science          | Fundamentals of Food Science and Nutrition                              |
|       |                                   |                       | Fundamentals of Home Science Extension                                  |
|       |                                   |                       | Housing and Home Furnishing   |

**Note :- Only 2 Core Subject of 4 credits each, excluding the 4 credits core subject chosen in semester- I, to be chosen amongst above core subjects from the Annexure- I**

## ANNEXURE-VII

### LIST OF OPEN ELECTIVES GROUP-A

| Sr No | Name of Faculty                    | Core Group of Subject | Name of subject  |
|-------|------------------------------------|-----------------------|--|
| 1     | Faculty of Science and Technology  | Computer Science      | M.S. Access  |
| 2     |                                    | Environmental Science | Environmental Education  |
| 3     |                                    | Chemistry             | Chemistry of Drugs-I   |
| 4     |                                    | Mathematics           | Mathematical and Computational Thinking  |
| 5     |                                    | Microbiology          | Food Microbiology  |
| 6     |                                    | Botany                | Green House Technology   |
| 7     |                                    | Electronics           | Domestic Equipment Maintenance   |
| 8     |                                    | Biochemistry          | Basics of Microbiology   |
| 9     |                                    | Geology               | Introduction of landforms  |
| 10    |                                    | Biotechnology         | Biomedical Instrumentation   |
| 11    |                                    | Zoology               | Apiculture   |
| 12    |                                    | Physics               | Energy Forces  |
| 13    |                                    | Home Science          | Basic Physics  |
| 14    | Faculty of Humanities              | Political Science     | Election and Voter Behavior  |
| 15    |                                    | Home Economics        | Time and Energy Management   |
| 16    |                                    | Geography             | Geography of Health  |
| 17    |                                    | Sociology             | Sociology of social welfare-II   |
| 18    |                                    | Economics             | Introductory Economics-II  |
| 19    |                                    | Hindi                 | हिंदी साहित्य का इतिहास आधिकाल भाग - II  |
| 20    |                                    | Marathi               | मराठी साहित्य - कविता (निवडक ) अभ्यास पुस्तक - आधुनिक मराठी कविता                              |
| 21    |                                    | English               | Presentation Skill -II   |
| 22    |                                    | History               | Ancient Indian Administation   |
| 23    |                                    | Ambedkar Thought      | Dr. Ambedkar's Approach to Social Problems of Minorities , Caste, Women, Poverty and illitracy |
| 24    |                                    | Pali                  | पालि व्याकरण   |
| 25    |                                    | Fashion Designing     | Yarm and Fabric  |
| 26    |                                    | Psychology            | Developmental of Psychology -I   |
| 27    |                                    | Public Administration | Public Policy  |
| 28    |                                    | Indian Music          | Critical studies of Ragas Talas-II   |
| 29    |                                    | Military Science      | Indians Internal Security -II  |
| 30    |                                    | NCC                   | War after Independence   |
| 31    | Faculty of Commerce and Management | Commerce              | Business Economics-II  |
| 32    |                                    |                       | Labour Economics-II  |

**Note :- Only one, 2 credits subject other than the faculty of core subject to be chosen amongst 32 Open Elective Group – A mentioned in the above Annexure - VII**

# ANNEXURE-VIII

## LIST OF OPEN ELECTIVES GROUP-B

| Sr No | Name of Faculty                    | Core Group of Subject | Name of subject                             |
|-------|------------------------------------|-----------------------|---|
| 1     | Faculty of Science and Technology  | Computer Science      | Google Tools                                |
| 2     |                                    | Environmental Science | Global Environmental Concerns               |
| 3     |                                    | Chemistry             | Chemistry of Drugs-II                       |
| 4     |                                    | Mathematics           | Business Mathematics                        |
| 5     |                                    | Microbiology          | Air, Soil and Water Microbiology            |
| 6     |                                    | Botany                | Nursery Development                         |
| 7     |                                    | Electronics           | Renewable Energy and Energy Harvesting      |
| 8     |                                    | Biochemistry          | Indigenous system of Health and Medicine    |
| 9     |                                    | Geology               | Groundwater Quality and Management          |
| 10    |                                    | Biotechnology         | Hospital Waste Management                   |
| 11    |                                    | Zoology               | Sericulture                                 |
| 12    |                                    | Physics               | Nano-science                                |
| 13    |                                    | Home Science          | Food Adulteration                           |
| 14    | Faculty of Humanities              | Political Science     | Good Governance                             |
| 15    |                                    | Home Economics        | Works Simtification                         |
| 16    |                                    | Geography             | Physical Geography-II                       |
| 17    |                                    | Sociology             | Sociology of Marriage & Family              |
| 18    |                                    | Economics             | Agriculture Economics -II                   |
| 19    |                                    | Hindi                 | प्रशासनिक एवम व्यावसायीक पत्रलेखन - भाग- II |
| 20    |                                    | Marathi               | कविता - सर्जनात्मक लेखन आणि वाचन            |
| 21    |                                    | English               | Media and Communication Studies -II         |
| 22    |                                    | History               | Ancient Indian Economics and Economy        |
| 23    |                                    | Ambedkar Thought      | Dr Ambedkar and Conversion to Buddhism      |
| 24    |                                    | Fashion Designing     | Pattern of Designing                        |
| 25    |                                    | Psychology            | Developmental of Psychology -II             |
| 26    |                                    | Public Administration | Rural Development                           |
| 27    |                                    | Indian Music          | Introduction of Indian Music and fine Arts  |
| 28    |                                    | Military Science      | Indian Military Operations                  |
| 29    |                                    | NCC                   | External Security Threats                   |
| 30    | Faculty of Commerce and Management | Commerce              | Principles of Management-II                 |
| 31    |                                    |                       | Basics Insurance                            |

**Note :- Only one, 2 credits subject other than the faculty of core subject to be chosen amongst 31 Open Elective Group – B mentioned in the above Annexure -VIII**

## ANNEXURE- IX

### LIST OF SUBJECT FOR SKILL ENHANCEMENT COURSE (SEC)

| Sr No | Name of Faculty                    | Core Group of Subject | Name of subject                              |
|-------|------------------------------------|-----------------------|--|
| 1     | Faculty of science and Tech        | Computer Science      | Data Analysis Using Excel                    |
| 2     |                                    | Environmental Science | Water Conservation System                    |
| 3     |                                    | Chemistry             | Chemistry of Boiler Troubles                 |
| 4     |                                    | Mathematics           | Mathematical Modelling                       |
| 5     |                                    | Microbiology          | Vermicomposting                              |
| 6     |                                    | Botany                | Floriculture                                 |
| 7     |                                    | Electronics           | Fundamentals of Electronics                  |
| 8     |                                    | Biochemistry          | Bio analytical Techniques                    |
| 9     |                                    | Geology               | Fundamental of Hydro Geology                 |
| 10    |                                    | Biotechnology         | Fermentation Technology                      |
| 11    |                                    | Zoology               | Clinical Instrumentation Technique           |
| 12    |                                    | Physics               | Electrical Circuit Network Skill             |
| 13    |                                    | Home Science          | Food preservation                            |
| 14    | Faculty of Humanities              | Political Science     | Human Empowerment                            |
| 15    |                                    | Home Economics        | Banking Sector                               |
| 16    |                                    | Geography             | Water Management                             |
| 17    |                                    | Sociology             | Case Study                                   |
| 18    |                                    | Economics             | Banking system-II                            |
| 19    |                                    | Hindi                 | मिडीया लेखन                                  |
| 20    |                                    | Marathi               | जाहिरात मसुदा लेखन                           |
| 21    |                                    | English               | Functional English-II                        |
| 22    |                                    | History               | Museum in India                              |
| 23    |                                    | Ambedkar Thought      | Atrocity Act                                 |
| 24    |                                    | Pali                  | पालि भाषेचा आधुनिक काळात वापर                |
| 25    |                                    | Fashion Designing     | Jewellery Art                                |
| 26    |                                    | Psychology            | Soft skills development-II                   |
| 27    |                                    | Public Administration | Personality Development                      |
| 28    |                                    | Indian Music          | Critical Studies of Ragas and Talas II       |
| 29    |                                    | Military Science      | Road safety in traffic management-II         |
| 30    |                                    | NCC                   | Computer Application                         |
| 31    | Faculty of Commerce and Management | Commerce              | Business Communication                       |
| 32    |                                    |                       | Foundation course in Spoken English          |
| 33    |                                    |                       | Corporate and Business English Communication |
| 34    |                                    |                       | Foundation Course in Content Writing         |

**Note :- Only one, 2 credits SEC to be chosen amongst 34 subjects of three Faculties from the above**

## **ANNEXURE- X**

### **LIST OF SUBJECT FOR VALUE ADDED COURSES (VEC)**

| <b>Sr. No.</b> | <b>Name of subject</b>                         |
|----------------|--|
| 1              | I..P.R. (Intellectual Property Rights)         |
| 2              | Environmental studies                          |
| 3              | Constitution of India                          |
| 4              | G.S.T.   |
| 5              | Indian Democracy, Election and Good Governance |
| 6              | D.P.R. writing                                 |
| 7              | Artificial Intelligence (A.I.)                 |
| 8              | Digital Marketing                              |
| 9              | Stock Marketing                                |

**Note :- Only one, 2 credits subject VEC to be chosen from the above Annexure - X**

**ANNEXURE- XI**  
**LIST OF ABILITY ENHANCEMENT COURSE (AEC)**  
**Semester –II**

| <b>Sr. No.</b> | <b>Name of subject</b>                                |
|----------------|---|
| 1              | English   |
| 2              | Marathi<br>OR<br>Hindi<br>OR<br>Pali<br>OR<br>Bengali |

**Note :- 1) 2 credit AEC English is Compulsory for all Students**

**2) Amongst 2 credit AEC Marathi, Hindi, Pali and Bengali, only one to be chosen**