AC - 28/03/2025 Item No. - 7.9 (N) (2ab)

#### As Per NEP 2020

## University of Mumbai



# Syllabus for Minor Vertical 2

Faculty of Commerce & Management

**Board of Studies in Bachelor of Management Studies** 

Second Year Programme : Bachelor of Management Studies

| Semester                  |      | III & IV        |
|---------------------------|------|-----------------|
| Title of Paper            | Sem. | Total Credits 4 |
| I) Health & Hygiene Audit | III  | 4               |
| Title of Paper            |      | Credits         |
| I) Green Campus Audit     | IV   | 4               |
| From the Academic Year    |      | 2025-26         |

Sem. - III

# Syllabus B. Com/BMS (Environmental Management & Economics) (Sem- III)

Title of Paper: Health & Hygiene Audit

| Sr.<br>No. | Heading  | Particulars  |  |
|------------|--|--|--|
| 1          | Description the course:  | In the changing dynamics of business environmental forces, Environment Management helps explore the intricate balance between human activities and the natural world. Throughout this course, learners will delve into strategies for preserving ecosystems, mitigating environmental impacts, and promoting sustainability. From understanding environmental regulations to implementing conservation practices, students will develop the skills and knowledge necessary to become effective stewards of our planet. This will enable the learners to embark into the journey to safeguard our environment for future generations. |  |
| 2          | Vertical:  | Minor  |  |
| 3          | Type:  | Theory   |  |
| 4          | Credit:  | 4 credits  |  |
| 5          | Hours Allotted:  | 60 Hours   |  |
| 6          | Marks Allotted:  | 100 Marks  |  |
| 7          | <ul> <li>Course Objectives: <ul> <li>a. To understand the principles of quality control in relation to environmental audits and the regulatory framework governing food safety and hygiene.</li> <li>b. To learn about food security, hygiene issues, and their relevance to public health and food safety.</li> </ul> </li> </ul> |  |  |
| 8          | in maintaining hygiene in food s   | aluate the effectiveness and regulations and standards afety practices step-by-step procedures for conducting hygiene and  |  |

| 9  | Modules:-  |   |  |  |
|----|--|---|--|--|
|    | Module 1: Introduction to Health & Hygiene Audit   |   |  |  |
|    | Unit-I: Sanitation and hygiene   |   |  |  |
|    | <ul><li>a. Background of sanitation and hygiene</li><li>Primary focus towards health,</li><li>b. Food security and hygiene- Need of the</li></ul>  |   |  |  |
|    | Unit-II: Food Safety Management  |   |  |  |
|    | <ul> <li>a. Safety rules for a hygiene environment, Food safety- Food Safety Management System (FSMS).</li> <li>b. FSMS rules &amp; regulations.</li> </ul>  |   |  |  |
|    | Module 2: Laws and Procedure for condu   | cting Audit   |  |  |
|    | Unit-III: Principles of quality control  |   |  |  |
|    | <ul> <li>a. Principles of quality control.</li> <li>b. Government regulations. (Food laws, orders) and amendments and national and international standards – ISI, AGMARK, ISO, FSSAI</li> </ul>  |   |  |  |
|    | Unit-IV: Procedure for audit   |   |  |  |
|    | <ul><li>a. Procedures for conducting audit.</li><li>b. Application Forms and Checklist</li></ul>   |   |  |  |
| 11 | <ol> <li>Reference Books:         <ol> <li>Borvers, J. (1992). Food Theory and Application (2ndEd), New York: Maxwell MacMillan International Edition.</li> <li>Manay, N. S. and Sharaswamy, S. M. (1997). Foods: Facts and Principles New Delhi: New Age International Publishers.</li> <li>McWilliams, M (2007). Foods: Experimental Perspectives 5th Ed, New Jersey: Macmillar Publishing Co.</li> <li>Potter, N. N. and Hutchkiss, J. H. (1997). Food Science, 5th Ed, New Delhi: CBS Publishers and Distributors.</li> <li>Rick Parker (2003) Introduction to Food Science, New York: Delmar Thomson Learning.</li> <li>Scottsmith and Hui Y.H (Editiors) (2004) Food Processing – Principles and Applications London Blackwell Publishing.</li> </ol> </li> <li>Internal Continuous Assessment: 40%         <ol> <li>External, Semester End Examination</li> </ol> </li> </ol> |   |  |  |
| 12 | Internal Paper Pottorn (40 Marks)  | 60% Individual Passing in Internal and External Examination |  |  |
| 12 | <ol> <li>Internal Paper Pattern (40 Marks)</li> <li>Project Presentation OR Case Study</li> <li>Quiz OR Group discussion</li> <li>Class Test (Mandatory) with objective</li> </ol>   | 10 Marks  |  |  |
|    | Tot  |   |  |  |

Sem. - IV

# **Syllabus** B. Com/BMS (Environmental Management & Economics) (Sem.- IV) Title of Paper: Green Campus Audit

| Sr.<br>No. | Heading   | Particulars  |  |
|------------|---|--|--|
| 1          | Description the course:   | In the changing dynamics of business environmental forces, Environment Management helps explore the intricate balance between human activities and the natural world. Throughout this course, learners will delve into strategies for preserving ecosystems, mitigating environmental impacts, and promoting sustainability. From understanding environmental regulations to implementing conservation practices, students will develop the skills and knowledge necessary to become effective stewards of our planet. This will enable the learners to embark into the journey to safeguard our environment for future generations. |  |
| 2          | Vertical :  | Minor  |  |
| 3          | Type:   | Theory   |  |
| 4          | Credit:   | 4 credits  |  |
| 5          | Hours Allotted :  | 60 Hours   |  |
| 6          | Marks Allotted:   | 100 Marks  |  |
| 7          | Course Objectives:  a. To introduce students to the basic principles and practices that define a green campus, including biodiversity, sustainability, and environmental responsibility.  b. To train students in conducting a Green Campus Audit, assessing sustainability efforts, and identifying areas for improvement in infrastructure and practices.                       |  |  |
| 8          | Course Outcomes:  CO1) Learners will understand the environmental impact of campus activities, including resource consumption, waste generation, and biodiversity.  CO2) Learners will be acquainted about the sustainable practices and technologies relevant to campus operations, such as renewable energy, water conservation, waste reduction, and biodiversity conservation |  |  |

#### 9 Modules:-**Module 1: Introduction to Green Campus Audit** Unit-I: Basics of Green campus & Natural topography a. Basics of Green campus, Role of plants, animals, and microorganisms in green campus b. Natural topography, vegetation and rainwater harvesting system Unit-II: Landscape design & Water Irrigation System a. Landscape design and soil erosion control. Promoting the native biodiversity conservation. b. Establishment of lawns, trees, herbs, shrubs, and climbers in the campus. c. Operation of water irrigation system, drip, and sprinkler irrigation methods. Module 2 –Infrastructure developments and sustainable practices **Unit-III: Waste Management Practices in Campus** a. Solid waste management practices (collection, sorting, recycling, disposal), Organic waste management at campus. b. Promoting sustainable transportation (cycling, walking), Reducing the use of single- use plastics, Developing environmental awareness programs for students and staff. Unit-IV: Green campus audit procedures a. Green campus audit procedures, testing methods, promoting biodiversity, and creating green space b. Application Forms and Checklist 10 **Reference Books:** 1. Greening the Campus: A Guide to Sustainable Practices in Higher Education-Routledge. 2. Sustainable Campus: Greening the Institutional Environment" - Wiley-Blackwell 3. Sustainable Infrastructure: The Guide to Green Engineering and Design"-Richard C. Schilling 11 **Internal Continuous Assessment: 40% External, Semester End Examination** 60% Individual Passing in Internal and External Examination 12 **Internal Paper Pattern** (40 Marks) 4. Project Presentation OR Case Study writing 10 Marks 5. Quiz **OR** Group discussion 10 Marks 6. Class Test (Mandatory) with objectives 20 Marks 40 Marks Total

### **QUESTION PAPER PATTERN**

### (External and Internal)

| Paper Pattern 4 Cre                                  | dits (Total 100 Marks) |            |
|--|------------------------|------------|
| Internal = 40 M                                      |                        |            |
| External = 60 M                                      | <b>I</b> arks          |            |
| Internal Paper Pattern                               | (40 Marks)             |            |
| 1. Project Presentation <b>OR</b> Case Study writing |                        | 10 Marks   |
| 2. Quiz <b>OR</b> Group disc                         | ussion                 | 10 Marks   |
| 3. Class Test (Mandato                               | ry) with objectives    | 20 Marks   |
|  | Total                  | 40 Marks   |
| Ext  | ternal Paper Pattern   | (60 Marks) |
| External Paper Pattern                               | (60 Marks)             |            |
| Write any <b>FOUR</b> questions                      | from the following     |            |
| Q1. Answer the following                             |                        | 15 marks   |
| A  |                        |            |
| В  |                        |            |
| Q2. Answer the following                             |                        | 15 Marks   |
| A  |                        |            |
| В  |                        |            |
| Q3. Answer the following                             |                        | 15 Marks   |
| A  |                        |            |
| В  |                        |            |
| Q4. Answer the following                             |                        | 15 marks   |
| A  |                        |            |
| В  |                        |            |

Q5. Answer the following

A

B

Q6. Answer the following

A

B

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Chairman
Dr. Kanchan Fulmali
Board of Studies in
BMS

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Prof. Kavita Laghate
Faculty of
Commerce &
Management

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