



SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

**(An Autonomous Institution)
TVR NAGAR, ARUPPUKOTTAI ROAD, MADURAI – 625 022**



ANNUAL QUALITY ASSURANCE REPORT 2020 - 21

Teaching Plan B.Sc., Food Science and Processing Management 2020 - 21

COURSE PLAN ODD 2020-21

**SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE
DEPARTMENT OF FOOD SCIENCE AND PROCESSING MANAGEMENT
ACADEMIC YEAR 2020-2021 (ODD)
PREAMBLE**

| No. | Course Code | Course Name | Faculty In-Charge |
|-----|-------------|---|---------------------------|
| 1. | 20UT101 | Tamil I | Ms.R.Sailakshmi |
| 2. | 20UH101 | Hindi I | Mrs.S.Neela |
| 3. | 20UGE102 | General English I | Mr.V.V.Sundaram |
| 4. | 20BF103 | Fundamentals of Nutrition | Mrs.P.Deepalakshmi |
| 5. | 20BF104 | Principles of Food Science | Mrs.P.Deepalakshmi |
| 6. | 20BF105 | Allied : Food Chemistry | Mrs.M.Venkatasubbulakshmi |
| 7. | 20BF106 | Basic Food Preparation Practical | Ms.A.Sona |
| 8. | 20BF107 | Principles of Food Science Practical | Mrs.P.Deepalakshmi |
| 9. | 20VE109 | Value Education | Ms.A.Sona |
| 10. | 19UT301 | Tamil III | Ms.R.Sailakshmi |
| 11. | 19UH301 | Hindi III | Mrs.S.Neela |
| 12. | 19UGE302 | General English III | Ms.T.Sridevi |
| 13. | 19BF301 | Cereals, Pulses and Oilseeds Processing | Ms.A.Sona |
| 14. | 19BF302 | Fruits and Vegetables Processing | Mrs.P.Deepalakshmi |
| 15. | 19BF303 | Allied: Bakery and Confectionaries | Mr.K.Perumal Kannan |
| 16. | 19BF306 | Cereals & Pulses Practical | Ms.A.Sona |
| 17. | 19BF307 | Allied: Bakery and Confectionaries Practical | Mr.K.Perumal Kannan |
| 18. | 19BF304 | Food Additives | Mrs.M.Venkatasubbulakshmi |
| 19. | 19BF305 | Food Safety and Hygiene | Mrs.M.Venkatasubbulakshmi |
| 20. | 19BF308 | Non Major Elective: Meal Planning & Balanced diet | Mrs.P.Deepalakshmi |
| 21. | 19CC307 | Non Major Elective: Banking Practice | Mr.R.Dhamodharan |
| 22. | 18BF501 | Food Design | Mrs.P.Deepalakshmi |
| 23. | 18BF502 | Food Entrepreneurship | Mrs.M.Venkatasubbulakshmi |
| 24. | 18BF503 | Allied: Food Regulations and Plant Management | Ms.A.Sona |
| 25. | 18BF504 | Food Design Practicals | Mrs.M.Venkatasubbulakshmi |
| 26. | 18CRT509 | Campus Recruitment Training - III Practical | Mr.Sivakumar |

A. Sona
HoD

P. Deepalakshmi
Deaf

P. Sridevi
PRINCIPAL

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

| Name of the Programme : | | All First Year (Except F&IS) | | | | | |
|--------------------------------|--|--|----------------------|--------------------------------------|----------------|----------|-------------------------|
| Title of the Course : | | TAMIL | | Course Code: | 20UT101 | | |
| Year / Semester: | | 2020-2021/1 | Section: | Total No. of Students: | | | |
| No.of Credits: | | 3 | | Total no. of Contact hours:50 | | | |
| | | | | | | | |
| S. No | Topic | Reference / text Book Page No. | Teaching Aids | Mode of Delivery No. of Hours | | | Cumulative Hours |
| | | T 12 / R 04 | | L | T | P | |
| Unit I | | | | | | | |
| 1 | □□□□□□□□ - □□□□□□□□□□ □□□□□□□□□□ - □□□□□□ □□□□□. | R1-1,2/R2-154/R3-74 | BB | 2 | 2 | | 4 |
| 2 | □□□□□□□□ □□□□□□ - □□□□□□ □□□□□. □□□□□□ □□□□□□ □□□□□□□□ □□□□□□ - □□□□□□□□□. | R1- 5,6/ R3-50 /R4- 68 | BB | 2 | 2 | | 4 |
| 3 | □□□□□□□□□□ - □□□□□□□□ □□□□□□ □□□□□□□□. | R1-6/ R5 - 1 | BB | 1 | 1 | | 1 |
| Unit II | | | | | | | |
| 4 | □□□□□ - □□□□□□□□ □□□□□□, □□□□□□. | R1-7/R6 -13/48 | | 1 | 1 | | 2 |

| | | | | | | | |
|-----------------|---|----------------|----|---|---|--|---|
| 5 | □□□□□□ □□□□□□ - □□□□□□□□ □□□□□□□□(□□□□ □□□□□□□□);). | R1-8/ R7-26 | BB | 1 | 1 | | 2 |
| 6 | □□.□□□□□□- □□□□□□□□□□□□ □□□□ (□□□□□□□□ □□□□□□). | R1-10/ R8- 99 | BB | 1 | 1 | | 2 |
| 7 | □□□□□□□□-□□□□□ □□□□□□□□□□ (□□□□□□ □□□□□□ □□□□□□□□□□). | R1-8/ R9-121 | BB | 1 | 1 | | 2 |
| 8 | □□□□□ □□□□□□□□- □□□□□□□□□□□□□□ □□□□□ 10 □□□□□ □□□□□□□□. . | R1-20/ R10-38 | BB | 1 | 1 | | 1 |
| Unit III | | | | | | | |
| 9 | □□□□□□□□□□□□□□□□- □□□□□□□□□□□□□□□□. | R1-22/R11- 29 | BB | 1 | 1 | | 2 |
| 10 | □□□□□□□□□□- □□□□□□□□□□. | R1-41/R12-61 | BB | 1 | 1 | | 2 |
| 11 | □□□□□□-□□□□□□□□ | R1-22/ R 13-47 | BB | 1 | 1 | | 2 |

| | | | | | | | |
|---------|--|---------------------|----------|---|---|--|---|
| 12 | □□□.□□□.□□□□□□□□- □□□□□□□□□□□□□□ □□□□□□□□□□□□. | R1-29/R12-92 | BB | 1 | 1 | | 2 |
| 13 | □□□□□□□□.□□□□□□□□ □□□□□□□□. | R1-66/ R12 -60 | BB / PPT | 1 | 1 | | 1 |
| Unit IV | | | | | | | |
| 14 | ബേബി □□□□□□□□□□, ബേബി □□□□□□□□□□□□, റ്റ-൧ □□□□□□□□□□□□.; | R1-76/R14- 236 | BB | 2 | 2 | | 4 |
| 15 | □□□□□□□□□□ □□□□□□□□□□ - □□□□□□□□ □□□□□□ □□□□□□□□, □□□□□□□□ □□□□ □□□□□□□□. | R1-79/ R14 - 264 | BB | 2 | 2 | | 4 |
| 16 | □□□□□□□□□□ □□□□□□□□ - □□□□□□□□□□□□, □□□□□□□□□□□□, □□□□□□□□□□□□□□□□, □□□□□□□□, □□□□□□ □□ □□□□□□□□ □□□□□□□□□□ □□□□□□□□□□, □□□□□□□□□□□□ □□□□□□□□□□ | R1-84/R14 -403 | BB | 1 | 1 | | 1 |
| Unit -V | | | | | | | |
| 17 | □□□□□□□□□□□□□□□□□□ □□□□□□□□□□ □□□□□□□□□□□□□□ | R1-91/R15-258 | BB | 1 | 1 | | 2 |

| | | | | | | | |
|-----------|--|-----------------------|-----------|----------|----------|--|----------|
| 18 | □□□□□□□□□□ □□□□□□□□□□ □□□□□□□□□□□□ | R1-95/ R16-423 | BB | 1 | 1 | | 2 |
| 19 | □□□□□□□□□□□□□□ (□□□□□□□□□□□□□□□□). | gilg;ghw;wy; | BB | 3 | 3 | | 5 |
| | | | | | | | |

* L - Lecture T - Tutorial (Problems / Example Programs / Revision Classes) P - Practical

* LCD / PPT / Black Board (BB) / Worksheet(WS) / Video (V) / Group Discussion (GD) / Blended & Flipped (BF) / Open educational resources (OER) media that are freely accessible, Google tools like Drive (GRV) , Google Docs (GDo), and Google Slides(GS) and Whiteboards(WB),Wikipedia (W) any other tools may also be included.
[Mark the abbreviation in the teaching aids column]

COURSE PLAN FOR CONTENT BEYOND SYLLABUS

| Sl.NO | Module | Lecture | Planned Topics | Date | Time | Total No of Hours Allotted |
|--|---------------|----------------|----------------------------|-------------|-------------|-----------------------------------|
| 1 | 1 | Lecture1 | □□□□□□□□□□□□□□ □□□□□□□□ | | | |
| 2 | | Lecture2 | □□□□□□□□ □□□□□□□□ | | | |
| 3 | 2 | Lecture1 | □□□□□□□□ □□□□□□□□; | | | |
| Gaps in the Syllabus –To meet Industrial Requirements | | | | | | |
| | | | | | | |

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / | | | |
|------------------------|--|-----------------|----------------------|-------------------------------------|--|--|--|
| | | | | Hours beyond the Time Table (HB) | | | |
| 1 | □□□□□□□□ □□□□□□□□ | Assignment | | 3 | | | |
| 2 | □□□□□□□□ □□□□□□□□ □□□□□□□□ □□□□□□□□ | Seminar | 3 | | | | |
| 3 | □□□□□□□□ □□□□□□□□□□ □□□□□□□□□□□□□□□□ | Peer teaching | 2 | | | | |
| Reference Books | | | | | | | |
| R1 | □□□□□□ □□□□□ -1 – □□□□□□□□ □□□□□□□□□□ – □□□□□□□□□□ □□□□□□□□□□ □□□□□□□□. | | | | | | |
| R2 | □□□□□□□□□. □□□□□□□□□ □□□□□□□□. □□□□□□: □□□□□□□□□ □□□□□□□□□, 1920. Print. | | | | | | |
| R3 | □□□□□□□□□□. □□□□□□□□□□ □□□□□□□□. □□□□□□□□: □□□□ □□□□□□□□□□□□□□, □□□□□□□□ □□□□□□□□, 1993. Print. | | | | | | |
| R4 | □□□□□□□□ □□□□□□. □□□□□□□□ □□□□□□ □□□□□□□□. □□□□□□□□: □□□□□□□□ □□□□□□□□□, 1995 Print. | | | | | | |
| R5 | □□□□□□ □□□□□ □□□□□□□□ □□□□□□. □□□□□□□□. □□□□□□□□: □□□□□□□□□ □□□□□□□□, 1995 Print. | | | | | | |
| R6 | □□□□□□□□□□. L#□□□□□□□ □□□□□□□□□□. □□□□□□□□: □□□□□□□□ □□□□□□□□□, 1997 Print. | | | | | | |
| R7 | □□□□. □□□□□□□□. □□□□□□□□□□: □□□□□ □□□□□□□□□□, 1996. Print. | | | | | | |
| R8 | □□□□□□□□□□□□□□□□. □□□□□□□□□□□□□□□□. □□□□□□□□: □□□□□□ □□□□□□□□□□□, 2002. Print. | | | | | | |
| R9 | □□.□□□□□□□□. □□□□□□□□□□+□□□□□□□. □□□□□□□□: □□□□□□ □□□□□□□□□□, 2009. Print. | | | | | | |

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|----|-----------------------|-------------------|------|--|--|--|--|
| 2. | I INTERNAL | UNIT - I, II, V | 50% | | | | |
| 3. | II INTERNAL | UNIT - III, IV, V | 50% | | | | |
| 4. | Summative Examination | ALL FIVE UNITS | 100% | | | | |

| Designation | | Prepared by | | |
|--------------------------------|--------------|--------------|-----------|------|
| | | Name | Signature | Date |
| Course Coordinator / In-charge | | Mrs.H.Geetha | | |
| Programme Coordinator | | Mrs.N.Selvi | | |
| Approved by | | | | |
| | Name | Signature | | |
| HoD | Mrs.N.Selvi | | Date | |
| Dean Academics | Dr.S.Priya | | | |
| Principal | Dr.R.Sujatha | | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme : Food Science

Title of the Course :

Hindi I

Course Code: 20UH101

Year / Semester: I YEAR/ I SEMESTER

Total No. of Students:13

No.of Credits: 3

| S. No | Topic | Reference / Text Book Page No. | Mode of Delivery No. of Hours | | | Cumulative Hours |
|-----------------|--------------------------------------|--------------------------------------|----------------------------------|---|---|---------------------|
| | | | L | T | P | |
| Unit I | | | | | | |
| 1 | □□□□□□ – peshevar. | R 1-4 / T1-79&80 | 2 | 1 | 9 | |
| 2 | □□□□ □□ □□□□□□□□ - dakoo say mahatma | R 1-7 / T1 -87 | 2 | 1 | | |
| 3 | □□□□□ □□□□□ - hmara bharath | R 1-9 / T1-93 | 2 | 1 | | |
| Unit II | | | | | | |
| 1 | □□□□□□ □□ □□□□ – sowdagar aur baloo. | R 1-11 / T2-104 | 2 | 1 | 9 | |
| 2 | □□□□□ □□□□□□□□ - Laalachi kutha. | R 1-12/ T2-105 | 2 | 1 | | |
| 3 | □□□□□ □□ □□□□□ - Dharji aur haathi | R 1-13/ T2- 116&117 | 2 | 1 | | |
| Unit III | | | | | | |

| | | | | | | |
|--|---|----------------------------------|---|----------|--|----------|
| 1 | □□□ □□□□□□ □□□□□□ - □□□□□□ -1 – pages 1 to 10. . | R 1-14 to 30 / T3-5 to 32 | 2 | 1 | | 9 |
| 2 | □□□□ □□□□ | R1-31 | 2 | 1 | | |
| 3 | □□□ □□□□. | R1-32 | 2 | 1 | | |
| Unit IV | | | | | | |
| 1 | □□□□□□ □□ □□□□□□ - Doctor and a patient. | R 1-33 / T4-222 | 2 | 1 | | 9 |
| 2 | □□□□□□□□ □□ □□□□□□ - Shopkeeper and buyer. □□□□□□□□ □□ □□□□□□ - Traveller and Auto man. | R 1-34 / T4-223 | 2 | 1 | | |
| 3 | □□□□□□□□□□ □□ □□□□□□ □□ □□□□□□ - Customer or Fruit seller and vegetable seller. | R 1-35 / T4-224 | 2 | 1 | | |
| Unit V | | | | | | |
| 1 | □□ □□ □□□□□□□□□□ □□ □□□□□□ - Names of fruits and vegetables. | R 1-35&36 | 2 | 1 | | 9 |
| 2 | □□□□ - Names of condiments. | R 1-37 | 2 | 1 | | |
| 3 | □□□□□□ – Numbers - 1 to 50. | R 1-37 & 38 | 2 | 1 | | |
| | | | | | | |
| * L - Lecture T - Tutorial (Problems / Example Programs / Revision Classes) P - Practical | | | | | | |

| COURSE PLAN FOR CONTENT BEYOND SYLLABUS | | | | | | |
|---|--------|-----------|------|------|----------------------------|--|
| SL.NO | Module | Lecture | Date | Time | Total No of Hours Allotted | |
| 1 | 1 | Lecture1 | | | | |
| 2 | 2 | Lecture2 | | | | |
| 3 | 3 | Lecture3 | | | | |
| 4 | 4 | Lecture 4 | | | | |
| | | | | | | |

| Gaps in the Syllabus –To meet Industrial Requirements | | | | | | |
|---|-----------------------------|------------------|-------------------------------------|--|--|--|
| SL. NO | Name of the Topic | PROPOSED ACTION | Hours with in the Time Table (HT) / | | | |
| | | | Hours beyond the Time Table (HB) | | | |
| 1 | Framing words and sentences | Assignment | 3 | | | |
| 2 | | Seminar | | | | |
| 3 | | Peer teaching | | | | |
| 4 | NA | Industrial Visit | NA | | | |
| | | | | | | |
| | | | | | | |

Resources [Citation style differs for each Programme, Kindly use the citation style (APA, MLA etc) applicable for your domain. This has been advised by the University Nominees and Experts last time]

Reference Book

R1 A Complied book, covering all the topics of the syllabus prepared by the Department of Hindi.

Text Books

T1 [Placeholder text for reference book 1]

T2 [Placeholder text for reference book 2]

T3 [Placeholder text for reference book 3]

| | |
|-----------|---|
| T4 | □□□□□□□□□□ □□□□ □□□□□□ □□□□□□□□□□ □□□□□□ □□□□ □□□□□□ □□□□□□ □□□□, □□□□□□ □□□□□□ □□□□□□ □□□□□□□□□□: □□□□□ - 519. |
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PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage (to be decided by the Department) |
|---------|-----------------------|---------------------------------|--|
| 1 | SLIP / CLASS TEST | UNIT - I | 15% |
| 2 | I INTERNAL | UNIT - I, II, V | 50% |
| 3 | II INTERNAL | UNIT - III, IV, V | 50% |
| 4 | Summative Examination | ALL 5 UNITS | 100% |

Prepared by

| Designation | Signature | Date |
|---------------------------------|----------------|------|
| Course Coordinator / In-charges | S.NEELA | |
| Programme Coordinator | | |

Approved by

| Name | Signature | Date |
|-----------------------|---------------------|------|
| HoD | Mrs.S.Neela | |
| Dean Academics | Dr.S.Priya | |
| Principal | Dr.R.Sujatha | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme : B.Sc. (MCHM, CS, NW, Viscom, Animation, Fire & Industrial Safety, Food Science & Processing Management)

| | | |
|---|-----------------|---------------------------------------|
| Title of the Course : General English- I | | Course Code: 20UGE102 |
| Year / Semester: I YEAR/ I SEMESTER | Section: | Total No. of Students: |
| No. of Credits: 3 | | Total no. of Contact hours: 45 |
| Course Teacher (s) Name : Mrs.R.Suganthi Hepzibha, Dr.S.priya, Ms.T.S.Sridevi, Mr.C.Senthilkumar and Mr.V.V.Sundaram | | |

| S. No | Topic | Reference / text Book Page No. | Teaching Aids | Mode of Delivery No. of Hours | | | Cumulative Hours |
|---------------|--------------------------|-----------------------------------|------------------|----------------------------------|---|---|------------------|
| | | | | L | T | P | |
| Unit I | | | | | | | |
| 1 | Kinds of Sentences | R1-1 / R 06, 03 | BB | 2 | 1 | | 9 |
| 2 | Parts of Speech | R1-3 / R 06, 03 | BB/PPT/V | 2 | 1 | | |
| 3 | Tenses, Verbs and Modals | R1-6 / R 06, 03 | BB | 2 | 1 | | |

| Unit II | | | | | | | |
|--|--|-------------------------|---------------|---|----------|--|----------|
| 1 | My Financial Career - Stephen Leacock | R1-12 | BB/V | 3 | | | 9 |
| 2 | Tattered Blanket - Kamala Das | R1-20 | BB/V | 3 | | | |
| 3 | The Antidote - R.K. Narayan | R1-25 | BB/V | 3 | | | |
| Unit III | | | | | | | |
| 1 | Etymology | R1-31 | PPT | 2 | 1 | | 9 |
| 2 | Synonyms & Antonyms | R1-33 | PPT | 2 | 1 | | |
| 3 | Homophones & Homonyms | R1-35 | PPT | 2 | 1 | | |
| Unit IV | | | | | | | |
| 1 | Sonnet 18 | R1-38 / R 04 | BB/PPT | 3 | | | 9 |
| 2 | Sonnet 55 | R1-42 / R 04 | BB/PPT | 3 | | | |
| 3 | Sonnet 116 | R1-45 / R 04 | BB/PPT | 3 | | | |
| Unit V | | | | | | | |
| 1 | Letter Writing (Formal and Informal) | R1-47 / R 06, 05 | BB/WS | 2 | 1 | | 9 |
| 2 | E-mail Writing (Formal and Informal) | R1-51 / R 06, 05 | BB/WS | 2 | 1 | | |
| 3 | Reading Comprehension | R1-54 / R 06, 05 | BB/WS | 2 | 1 | | |
| * L - Lecture T - Tutorial (Problems / Example Programs / Revision Classes) P - Practical | | | | | | | |
| Text Books | | | | | | | |
| T1 | General English-I, A Compiled book, covering all the topics of the syllabus prepared by the Department of English. | | | | | | |

| Reference Books | | | | | | | |
|---|---|------------------|----------------------|-------------------------------------|--|--|--|
| R1 | Dr.K.Alex. Soft Skills . New Delhi: S.Chand& Company Ltd, 1997. Print. | | | | | | |
| R2 | Dr. Gupta C.B. Business Correspondence & Reporting -Business Law, Business Correspondence & Reporting (CA-Foundation) . New Delhi: Taxmann, 2018. Print. | | | | | | |
| R3 | G.Radhakrishna Pillai. Emerald English Grammar and Composition . Bangalore: Emerald Publisher, 1998. Print. | | | | | | |
| R4 | Paul Joseph Margaret. Bequest of Wings . USA: Macmillan India Limited, 1994. Print. | | | | | | |
| R5 | Srivasan Hema. Communication Skills . Bangalore: Frank Brothers & Co. Ltd, 2004. Print. | | | | | | |
| R6 | Wren & Martin. High School English Grammar & Composition . India: S.Chand & Company Ltd, 1995. Print. | | | | | | |
| Web Resources | | | | | | | |
| W1 | https://www.enotes.com/topics/my-financial-career | | | | | | |
| W2 | http://tatteredblanket.blogspot.com/ | | | | | | |
| W3 | https://www.poetryfoundation.org/poems/45087/sonnet-18-shall-i-compare-thee-to-a-summers-day | | | | | | |
| W4 | https://www.poetryfoundation.org/poems/46455/sonnet-55-not-marble-nor-the-gilded-monuments | | | | | | |
| W5 | https://www.sparknotes.com/nofear/shakespeare/sonnets/sonnet_116/ | | | | | | |
| E – Books /Library INFLIBNET RESOURCES | | | | | | | |
| E1 | https://nlist.inflibnet.ac.in/search/Record/EBC483375 | | | | | | |
| E2 | https://nlist.inflibnet.ac.in/search/Record/EBC481114 | | | | | | |
| E3 | https://nlist.inflibnet.ac.in/search/Record/EBC1864716 | | | | | | |
| Gaps in the Syllabus | | | | | | | |
| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / | | | |
| | | | | Hours beyond the Time Table (HB) | | | |
| 1 | Essay Writing on Subjective Topics | Assignment | | 3 | | | |
| 2 | Extempore | Seminar | 3 | | | | |
| 3 | On Any Modules | Peer teaching | 2 | | | | |
| 4 | NA | Industrial Visit | NA | NA | | | |
| Proposed Actions can be Assignments , Seminars, Peer Teaching, Industrial Visit , Others (if any) | | | | | | | |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS

| Sl.NO | Module | Lecture | Planned Topics | Date | Time | Total No of Hours Allotted |
|--------------|---------------|----------------|------------------------------|-------------|-------------|-----------------------------------|
| 1 | 1 | Lecture 1 | Newspaper/Article reading | | | |
| 2 | 2 | Lecture 2 | Collecting & Reporting News | | | |
| 3 | 3 | Lecture 3 | Learning a New Word Everyday | | | |
| 4 | 4 | Lecture 4 | Public Speaking | | | |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage (to be decided by the Department) |
|----------------|-----------------------|--|---|
| 1 | SLIP / CLASS TEST | UNIT - I | 15% |
| 2 | I INTERNAL | UNIT - I, II, V | 50% |
| 3 | II INTERNAL | UNIT - III, IV, V | 50% |
| 4 | Summative Examination | ALL 5 UNITS | 100% |

| Prepared by | | | |
|---------------------------------|--------------------------------|------------------|-------------|
| Designation | Name | Signature | Date |
| Course Coordinator / In-charges | Mr.C.Senthilkumar | | |
| Course Coordinator / In-charges | Mr.V.V.Sundaram | | |
| Module Coordinator | Mrs.R.Suganthi Hepzibha | | |

| Approved by | Name | Signature | Date |
|-----------------------|--------------------------------|------------------|-------------|
| HoD | Mrs.R.Suganthi Hepzibha | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Science and Processing Management

Programme Code : FM1011

Title of the Course : Fundamentals of Nutrition

Course Code : 20BF103

Year / Semester: I / I

Total No. of Students : 13

No of Credits : 4

Total No. of Contact Hours : 60

Course Teacher Name: Mrs. P. Deepalakshmi

Corresponding lab Paper : Yes

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|---|-------------------------------|----------------|---------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Basic terms used in study of Nutrition – Nutrients, Nutrition Science, Health | T 1 | BB | 2 | | | 12 |
| 2. | Malnutrition, Under & Over Nutrition, Functions of Food | T 2, R 2 | BB | 3 | | | |
| 3. | Relationship between Food, Nutrition and Health | R5 | BB | 2 | | | |
| 4. | Concept of balanced diet, RDA, Reference Man and Women | T 11, 17 | BB | 3 | | | |
| 5. | Revision / Test / Quiz | | BB | | 2 | | |
| UNIT – II | | | | | | | |
| 6. | Energy - Definition, Unit of measurements | T 80-85 | BB | 1 | | | 12 |
| 7. | Determining energy value of food- Direct (Bomb calorimeter) | | BB/V | 2 | | | |
| 8. | Indirect (Benedict's oxy-calorimeter) calorimetry | | BB/V | 2 | | | |
| 9. | Carbohydrates – Sources, RDA, Functions, Digestion and Absorption, Excess | | T 21-37 | BB/V | 3 | | |

| | | | | | | | |
|-------------------|---|--------------------------------------|----|---|---|--|----|
| | and Deficiency | | | | | | |
| 10. | Dietary fibre and its importance, Role of Water as a Nutrient | T 38, 347 | BB | 2 | | | |
| 11. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – III | | | | | | | |
| 12. | Proteins - Sources, RDA, Functions and Digestion | T 130 | BB | 2 | | | 12 |
| 13. | Absorption, Excess and Deficiency of Proteins | T 133 | BB | 2 | | | |
| 14. | Lipids - Sources, RDA, Functions & Digestion | T 62 | BB | 2 | | | |
| 15. | Absorption, Excess and Deficiency of Lipids | T 63 | BB | 2 | | | |
| 16. | Fatty acids – Types | T 54 | BB | 2 | | | |
| 17. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – IV | | | | | | | |
| 18. | Fat soluble vitamins - A, D, E and K its Functions, Dietary sources, Clinical manifestations | T 244 | BB | 2 | | | 11 |
| 19. | Deficiency and Excess of Fat-soluble vitamins - A, D, E and K | T 258 | BB | 1 | | | |
| 20. | Water soluble vitamins – Thiamine, Riboflavin, Niacin its Functions, Dietary sources, Clinical manifestations | T 294 | BB | 2 | | | |
| 21. | Vitamin B12 and Vitamin C, Folate Functions, Dietary sources, Clinical manifestations | T 330 | BB | 2 | | | |
| 22. | Minerals – Calcium, Iron, Sodium, Iodine, Zinc, Phosphorous. | T165, T190, T 214, T 230 T 183 | | 2 | | | |
| 23. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – V | | | | | | | |
| 24. | Assessment of nutritional status – Anthropometry | T 381 | BB | 2 | | | 11 |
| 25. | Biochemical, Clinical | T 394 | BB | 2 | | | |
| 26. | Dietary methods | T 402 | BB | 2 | | | |

| | | | | | | | |
|--------------------|--|-------|----|---|---|--|-----------|
| 27. | Enhancing the nutritional quality of foods | R 377 | BB | 2 | | | |
| 28. | Home Scale & Industrial Methods | R 381 | BB | 1 | | | |
| 29. | Revision / Test / Quiz | | | | 1 | | |
| TOTAL HOURS | | | | | | | 58 |

Text Book

| | |
|----|--|
| T1 | Srilakshmi B, Nutrition Science, New Age International Publishers (India), 2003. |
|----|--|

Reference Books

| | |
|----|---|
| R1 | Srilakshmi, B. (2006), Food Science, New Age International (P) Ltd Publishers |
| R2 | Srilakshmi B. (2008), Dietetics, New Age International (P) Ltd Publishers |

Web Resources

| | |
|----|---|
| W1 | https://www.researchgate.net/publication/326414974_Fundamentals_of_Nutrition |
| W2 | https://catalogimages.wiley.com/images/db/pdf/047159976X.excerpt.pdf |
| W3 | |
| W4 | |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=444 |
| E2 | |
| E3 | |
| E4 | |

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---|-----------------|----------------------|--|
| 1. | Nutritional Status Survey - Questionnaire | Assignment | 1 | HB |
| 2. | Role of Nutrients in day – to – day life | Peer Teaching | 2 | HT |
| | | | | |
| | | | | |
| | | | | |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|---------------------------------|----------------------------|
| 1 | I | Lecture | PPT | Nutrition throughout life cycle | 2 |
| 2 | II | | Audio Visual | Nutrient and Drug Interaction | 2 |
| 3 | | | | | |
| 4 | | | | | |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|----------------|--------------------------|--|---|
| 1. | SLIP / CLASS TEST | Unit – 1-5 | 20% |
| 2. | I INTERNAL | Unit - I, II, III (upto Proteins) | 50% |
| 3. | II INTERNAL | Unit – III (from Lipids) , IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|--------------------|------------------|-------------|
| Assistant Professor | Name | Signature | Date |
| Course Coordinator / In-charge | Mrs.P.Deepalakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

| Approved by | | | |
|-----------------------|--------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Science and Processing Management

Programme Code: FM1011

Title of the Course: Principles of Food Science

Course Code: 20BF104

Year / Semester: I / I

Total No. of Students: 12

No of Credits: 4

Total No. of Contact Hours: 60

Course Teacher (s) Name: Mrs. P. Deepalakshmi

Corresponding lab Paper: Yes

/ Mrs. M. Venkata Subbulakshmi

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|--|-------------------------------|----------------|---------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Basic terms in Food Science – Food, Food Science, Fortification, Prebiotics, Probiotics | T 1 | BB | 2 | | | 12 |
| 2. | Nutraceuticals, Food additives, Phytochemicals, Functional Foods, Organic foods and Genetically modified foods | R 2 | BB | 2 | | | |
| 3. | Basic five food groups. Food pyramid. Principles of Meal Planning | T 3, T4, R5 | BB | 2 | | | |
| 4. | Preliminary preparations. Methods of cooking food – Dry heat | T6 | BB/V | 2 | | | |
| 5. | Moist heat methods, Frying and Microwave cooking. | T 22 | BB | 2 | | | |
| 6. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – II | | | | | | | |
| 7. | Cereals its Composition and Nutritive value, Structure of wheat | T29 | BB | 2 | | | 12 |
| 8. | Millets – Ragi, Corn, Bajra, Jowar, Role of cereals in cookery | T47 | BB | 3 | | | |
| 9. | Definitions of – Gluten, Gelatinization, Gelation, Retrogradation, Syneresis and Dextrinization | T 53 | BB/V | 3 | | | |

| | | | | | | | |
|--------------------|---|------------|------|---|---|--|-----------|
| 10. | Pulses and legumes - Composition, Nutritive value, Anti-nutritional factors | T 72, T 76 | BB | 1 | | | |
| 11. | Changes during cooking, Factors affecting quality of pulses, Changes during germination | T 82 | BB | 1 | | | |
| 12. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – III | | | | | | | |
| 13. | Composition and Nutritive value of Milk & Milk Products | T 105 | BB/V | 3 | | | 12 |
| 14. | Eggs- Structure, Composition, Role in Cookery, Nutritive value, Grading | T 131 | BB | 2 | | | |
| 15. | Fish – Nutritive value, Selection and Classification | T 169 | BB | 2 | | | |
| 16. | Meat- Structure, Nutritive value, Postmortem changes- Ageing, Tenderization | T 155 | BB/V | 3 | | | |
| 17. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – IV | | | | | | | |
| 18. | Fruits - Classification, Nutritive value | T 209 | BB/V | 3 | | | 11 |
| 19. | Changes during ripening of Fruits | T 215 | BB | 1 | | | |
| 20. | Classification, Nutritive value of Vegetables | T 180 | BB | 3 | | | |
| 21. | Changes & nutrient loss during cooking | T 194 | BB | 2 | | | |
| 22. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – V | | | | | | | |
| 23. | Nuts and Oil seeds- Nutritive value, Anti nutritional factors, Role in cookery | T 88 | BB | 2 | | | 11 |
| 24. | Sugar- Stages of sugar cookery, Sugar related products | T 222 | BB | 2 | | | |
| 25. | Spices and Aromatics, Functions, Role in Cookery | T 259 | BB | 2 | | | |
| 26. | Beverages- Classification, Tea, Coffee and Fruit beverages | T 279 | BB/V | 3 | | | |
| 27. | Revision / Test / Quiz | | BB | | 2 | | |
| TOTAL HOURS | | | | | | | 58 |

Text Book

| | |
|----|---|
| T1 | Srilakshmi B, Food Science, New Age International Publishers (India), 2003. |
|----|---|

Reference Books

| | |
|----|--|
| R1 | Srilakshmi B, Nutrition Science, New Age International Publishers (India), 2003. |
| R2 | Srilakshmi B, Dietetics, New Age International Publishers (India), 2003. |

Web Resources

| | |
|----|---|
| W1 | http://lib.rudn.ru/file/Food_Science_Nutrition_Catalogue_ebook.pdf |
| W2 | |
| W3 | |
| W4 | |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=444 |
| E2 | https://www.pdfdrive.com/food-science-books.html |
| E3 | |
| E4 | |

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---|-----------------|----------------------|--|
| 1. | Translating name of the Food groups (English – Tamil) | Assignment | 1 | HB |
| 2. | Recent Food Processing Techniques | Peer Teaching | 2 | HT |
| | | | | |
| | | | | |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|-----------------------------------|----------------------------|
| 1 | I | Lecture | PPT | Spices as Taste Enhancers | 1 |
| 2 | II | | Video | Cooking Techniques and Variations | 1 |
| 3 | | | | | |
| 4 | | | | | |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|--------------------------|---------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – 1-5 | 20% |
| 2. | I INTERNAL | Unit - I, II, III (upto Eggs) | 50% |
| 3. | II INTERNAL | Unit – III (from Fish) , IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|--------------------|-----------|------|
| Assistant Professor | Name | Signature | Date |
| Course Coordinator / In-charge | Mrs.P.Deepalakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

| Approved by | | | |
|-----------------------|---------------|-----------|------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R. Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Science and Processing Management

Programme Code : FM1011

Title of the Course: Food Chemistry

Course Code: 20BF105

Year / Semester: I/I

Total No. of Students 13

No of Credits: 5

Total No. of Contact Hours: 75

Course Teacher Name: Mrs. M. Venkata Subbulakshmi

Corresponding lab Paper : No

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-----------------|---|-------------------------------|----------------|------------------------------|---|----|------------------|
| | | | | L | T | P | |
| UNIT - I | | | | | | | |
| 1. | Classification of carbohydrate | T1 (6-18) | BB | 4 | 1 | | |
| 2. | Molecular structure of monosaccharides ,disaccharides | | BB | 3 | | | |
| 3. | Amylase ,amylopectin | | BB | 2 | | | |
| 4. | Properties and fuctions of CHO | | BB | 3 | | | |
| 5. | Changes in Carbohydrates during food processing | | BB | 1 | | | |
| 6. | Revision/ Class test/Quiz | | BB | 1 | | | |
| | | | | | | 15 | |

| UNIT – II | | | | | | | | |
|--------------|---|--------------|------------|---|---|--|-----------|--|
| 7. | Protein classification | T1(27-34) | BB/PP T | 3 | 1 | | 14 | |
| 8. | Structure and properties of protein | | BB | 2 | | | | |
| 9. | Denaturation and its functional roles | | BB | 2 | | | | |
| 10. | Amino acids classification and structure of essential amino acids | | BB | 3 | | | | |
| 11. | Properties of amino acids and definition of enzymes | | BB | 1 | | | | |
| 12. | Roles of enzymes in food industry | E3(1-4) | BB | 1 | | | | |
| 13. | Revision/ Class test/Quiz | | BB | 1 | | | | |
| UNIT – III | | | | | | | | |
| 14. | Fat Classification and structure | T1(18-26) | BB | 3 | 1 | | 13 | |
| 15. | Properties of fats and oils | | BB | 3 | | | | |
| 16. | Modification of fats | | BB | 2 | | | | |
| 17. | Deterioration of Fats and Oils | | BB | 3 | | | | |
| 18. | Revision/ Class test/Quiz | | BB | 1 | | | | |
| UNIT – IV | | | | | | | | |
| 19. | Classification of Vitamins and Minerals | T1 (230-233) | BB | 3 | 1 | | 15 | |
| 20. | Factors affecting stability of vitamins Minerals | W5 (1-8) | BB | 2 | | | | |
| 21. | Factors affecting stability of Minerals | | BB | 3 | | | | |
| 22. | Vitamin and minerals Losses during Processing | | BB | 2 | | | | |
| 23. | Classification of Minerals | | BB | 3 | | | | |
| 24. | Revision/ Class test/Quiz | | BB | 1 | | | | |
| UNIT – V | | | | | | | | |
| 25. | Introduction and functional properties of water and ice | W3 (1- 7) | BB/V | 2 | 1 | | 14 | |
| 26. | Structure of Water and ice , moisture content , water activity | | BB | 4 | | | | |
| 27. | Factors Influence on food quality and stability | | BB | 3 | | | | |
| 28. | Method of control of water activity | | BB | 3 | | | | |
| 29. | Revision/ Class test/Quiz | | BB | 1 | | | | |
| TOTAL | | | | | | | 56 | |

Text Book

| | |
|----|--|
| T1 | M. Swaminathan (Volume 1) Advanced text book on Food and nutrition, published by the Bangalore press and publishing Co.Ltd., |
|----|--|

Reference Books

| | |
|----|---|
| R1 | De Man, J.M., "Principles of Food chemistry", USA: aspen Publishers Inc. (Maryland), 1999 |
| R2 | Nielsen, S.S, "Food Analysis" (4 th ed) : Springer (New York),2010. |
| R3 | Ranganna,S., "Handbook of Analysis and Quality Control fro Fruit and Vegetable Products (2 nd ed)" Tata – McGraw – Hill (India), 2001. |

Web Resources

| | |
|----|---|
| W1 | http://www.fao.org/3/W8079E/w8079e0j.htm |
| W2 | http://osp.mans.edu.eg/medbiochem_mi/cources/biochemistry/1st_year_dentistry/Basic_chemistry/carbohydrate_chemistry/files/Lecture_01.pdf |
| W3 | https://www.britannica.com/science/water/Structures-of-ice |
| W4 | https://www.courses.psu.edu/fd_sc/fd_sc400_jnc3/proteins/4-Proteins.pdf |
| W5 | https://www.dsm.com/content/dam/dsm/nip/en_US/documents/stability.pdf |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | Kim A Sharp, E. R. Johnson Research Foundation, University of Pennsylvania, Philadelphia, Pennsylvania, USA |
| E2 | Dandago, M.A. Changes In Nutrients During Storage And Processing Of Foods Techno Science Africana Journal, Volume 3 Number 1, June, 2009 |
| E3 | A Review Sorabh Chaudhary ¹ *, Sushma Sagar ¹ , Mukesh Kumar ¹ , R.S. Sengar ¹ and Akash Tomar The Use of Enzymes in Food Processing: |
| E4 | QIANG ZHUGE factors affecting storage stability of vitamin a, riboflavin and niacin in a broiler diet premix/ |

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|----------------------------------|-----------------|----------------------|--|
| 1. | Enzymes roles in food industries | Assignment | 1 | HT |
| 2. | Properties of water | Assignment | 1 | HT |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| SL.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|------------------------|----------------------------|
| 1 | I | Lecture | PPT | Protein Classification | 1 |
| 2 | II | | Audio- Visual | Vitamins Structure | 1 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|----------------|-----------------------|--|---|
| 1. | SLIP / CLASS TEST | Unit 1 | 20 % |
| 2. | I INTERNAL | UNIT - I, II,III | 50% |
| 3. | II INTERNAL | UNIT - III, IV, V | 50% |
| 4 | Summative Examination | ALL FIVE UNITS | 100% |

| Designation | Prepared by | | |
|---------------------------------------|------------------------------|------------------|-------------|
| Assistant Professor | Name | Signature | Date |
| Course Coordinator / In-charge | Mrs. M. Venkata Subbulakshmi | | |
| Programme Coordinator | Mrs. P.Deepalakshmi | | |

Approved by

| | Name | Signature | Date |
|-----------------------|---------------|------------------|-------------|
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R. Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme : Food science and Processing Management

Title of the Course : Basic Food Preparation Practicals

Course Code : 20BF106

Year / Semester : I / I

Total No. of Students 13

No of Credits : 2

Total No. of Contact Hours 60

Course Teacher (s) Name : Ms.A.Sona

| Sl. No. | Name of the Experiment | Page No in the Lab Manual | Gap in the Syllabus if any | Content beyond Syllabus, if any | No. of Hours | Cumulative Hours |
|---------|--|---------------------------|----------------------------|---------------------------------|--------------|------------------|
| 1 | Standardization – weights, measures of commonly used foods | 2 | | | 4 | 8 |
| 2 | Standardization assessment of edible and non-edible portions – basic 5 food groups | 3 | | | 4 | |
| 3 | Cutting techniques and preliminary cooking methods – Steaming, blanching | 5 | Boiling | | 4 | 8 |
| 4 | Preliminary cooking methods –marinating, breading, batters, dough, pureeing. | 6 | | | 4 | |
| 5 | Preparation, serving and sensory evaluation of stocks, sauces and soups. | 7 | | | 4 | 4 |
| 6 | Methods of cooking grains and legumes – Introduction | 11 | | | 4 | 4 |
| 7 | Methods of cooking grains – Preparation, serving and sensory evaluation of Indian and global grain | 11 | | | 4 | 4 |

| | | | | | | |
|----|---|----|--|----------------------------|---|-------------------------------|
| | based products. | | | | | |
| 8 | Methods of cooking legumes – Preparation, serving and sensory evaluation of Indian and global legume based products | 14 | | | 4 | 4 |
| 9 | Methods of cooking vegetables – Preparation, serving and sensory evaluation of Indian and global vegetable based products | 16 | | | 4 | 4 |
| 10 | Methods of cooking vegetables – Preparation, serving and sensory evaluation of Indian and global vegetable based products | 16 | | | 4 | 4 |
| 11 | Methods of cooking fruits – Preparation, serving and sensory evaluation of Indian and global fruit based products | 18 | | Sensory evaluation of milk | 4 | 4 |
| 12 | Effect of pH on browning | 21 | | | 4 | 8 |
| 13 | Effect of pH on browning | 21 | | | 4 | |
| 14 | To perform the stages of sugar cookery. | 23 | | | 4 | 8 |
| 15 | To perform the stages of sugar cookery. | 23 | | | 4 | |
| | | | | | | Total No of Hours : 60 |

| Designation | Prepared by | | |
|--------------------------------------|----------------------|------------------|-------------|
| Ass.Prof & Head incharge | Name | Signature | Date |
| Course Coordinator / Incharge | Ms.A.Sona | | |
| Programme Coordinator | Mrs. P. Deepalakshmi | | |

| Approved by | | | |
|-----------------------|--------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Science and processing Management

Course Code : 20BF107

Title of the Course : Principles of Food Science Practical

Year / Semester : I / I

No of Credits : 2

Total No. of Students: 13

Course Teacher Name: Mrs. P. Deepalakshmi

Total No. of Contact Hours: 60

| Sl. No. | Week No. | Name of the Experiment | Page No in the Lab Manual | No. of Hours | Cumulative Hours |
|---------|----------|---|---------------------------|--------------|-------------------------------|
| 1 | I | Determination of Moisture using hot air oven | 03 | 4 + 2 | 6 |
| 2 | II | Determination of acidity and pH | 04-07 | 4 + 2 | 6 |
| 3 | III | Determination of TSS | 08 | 4 + 2 | 6 |
| 4 | IV | Food energy estimation using Bomb Calorimeter | 09-10 | 4 + 2 | 6 |
| 5 | V | Qualitative tests for Carbohydrates | 11-13 | 4 + 2 | 6 |
| 6 | VI | Qualitative test for Protein (Lowry's Method) | 14-15 | 4 + 2 | 6 |
| 7 | VII | Demonstration of Kjeldhal analysis of Protein | 16-19 | 4 + 2 | 6 |
| 8 | VIII | Fat estimation | 19-20 | 4 + 2 | 6 |
| 9 | IX | Estimation of Ascorbic acid | 21-22 | 4 + 2 | 6 |
| 10 | 1X | Ash content of Foods | 23-24 | 4 + 2 | 6 |
| | | | | | Total No. of Hours: 60 |

Gap in the Syllabus

| SL. NO | Name of the Topic | No of Hours Allotted |
|--------|---|----------------------|
| 1. | General Points to be remembered in the laboratory | 2 |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS

| Sl.NO | Topic | Total No of Hours Allotted |
|-------|---------------------------|----------------------------|
| 1 | Estimation of crude fibre | 2 |

| Designation | Prepared by | | |
|--------------------------------------|--------------------|-----------|------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / Incharge | Mrs.P.Deepalakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

Approved by

| | Name | Signature | Date |
|---------------------------|---------------|------------------|-------------|
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr. R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: B.Sc Food Science and Processing Management

Title of the Course : VALUE EDUCATION

Course Code : 20VE109

Year / Semester : I / I

Total No. of Students : 13

No of Credits : 2

Total No. of Contact Hours : 30

Course Teacher (s) Name : Ms. A. Sona

Corresponding lab Paper: No

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|---|--|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT I: INTRODUCTION TO VALUE EDUCATION | | | | | | | |
| 1. | Objectives and components of value education | (C-02-07) | BB | 1 | | | 1 |
| 2. | Need for value education | (C-07-08) | BB | 1 | | | 2 |
| 3. | Significance and importance of value education | (C-08-11) | BB | 1 | | | 3 |
| 4. | Human Values | (C-24-27) | BB | 1 | | | 4 |
| 5. | Relation between moral values and religion | (C-27-28) | BB | 1 | | | 5 |
| UNIT – II <u>VALUE EDUCATION FOR NATION BUILDING</u> | | | | | | | |
| 6. | National and constitutional values | (C-33-35) | BB | 1 | | | 6 |
| 7. | Categorization of values | (C-34-39) | BB | 1 | | | 7 |

| | | | | | | | |
|--|--|-----------|----|---|--|--|----|
| 8. | Environmental ethical values | (C-39-40) | BB | 2 | | | 9 |
| 9. | National integration | (C-40-42) | BB | 1 | | | 10 |
| 10. | Value seeds | (C-42-45) | BB | 1 | | | 11 |
| UNIT III: HUMAN RIGHTS WITH INDIAN CONSTITUTION | | | | | | | |
| 11. | The concept of human rights – Introduction | (C-63-67) | BB | 1 | | | 12 |
| 12. | Universal declaration of human rights | (C-46-51) | BB | 1 | | | 13 |
| 13. | Classification of human rights | (C-51-52) | BB | 2 | | | 15 |
| 14. | Social practice | (C-53-55) | BB | 1 | | | 16 |
| 15. | Growth of fundamental rights in India | (C-55-57) | BB | 1 | | | 17 |
| 16. | Human rights of Women and children | (C-57-62) | BB | 1 | | | 18 |
| UNIT IV: MORAL VALUES, ETHICS AND GOOD MANNERS | | | | | | | |
| 17. | Moral values and Ethics – Introduction | (C-68-80) | BB | 1 | | | 19 |
| 18. | Social values | (C-70-71) | BB | 2 | | | 21 |
| 19. | Spiritual values | (C-72-73) | BB | 1 | | | 22 |
| 20. | Good manners | (C-78-80) | BB | 1 | | | 23 |
| 21. | Character Building | (C-81-82) | BB | 1 | | | 24 |
| UNIT – V : <u>EIGHT LIMBS OF YOGA</u> | | | | | | | |
| 22. | <u>Yamas Niyama Āsana</u> | W2 | BB | 1 | | | 25 |
| 23. | <u>Prānāyāma Pratyāhāra Dhāraṇā</u> | W2 | BB | 1 | | | 26 |
| 24. | <u>Dhyāna Samādhi</u> | W2 | BB | 1 | | | 27 |
| | Total | | | | | | 27 |

Course material/Text book

| | |
|----|---|
| C1 | Value education- Theory course material |
|----|---|

Reference Books

| | |
|----|--|
| R1 | Ramachandra Dr. K, et.al, “VALUE EDUCATION”, Himalaya Publishing house,2017. |
|----|--|

Web Resources

| | |
|----|---|
| W1 | https://www.researchgate.net/publication/331521926_Scientific_benefits_of_Yoga_A_Review |
| W2 | https://www.theconnectedyogateacher.com/wp-content/uploads/2018/07/8-Limbs-of-Yoga-The-Connected-Yoga-Teacher-Podcast.pdf |

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|-------------------|------------------|----------------------|--|
| 1. | Human rights | Group discussion | 1 | HT |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS

| SI.NO | Module | Mode of delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|-------------------------------|----------------------------|
| 1 | W1 | Lecture | BB | Importance of 8 limbs of yoga | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage (to be decided by the Department) |
|----------------|--------------------------|--|---|
| 1 | SLIP / CLASS TEST | ALL FIVE UNITS | 25% |
| 2 | I INTERNAL | UNIT - I, II, III | 50% |
| 3 | II INTERNAL | UNIT - III, IV, V | 50% |
| 4 | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|------------------------------|------------------|-------------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | Ms.A.Sona | | |
| Programme Coordinator | Mrs. P. Deepa Lakshmi | | |

Approved by

| | Name | Signature | Date |
|---------------------------|--------------|------------------|-------------|
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMILAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

| | | | | | | | |
|--------------------------------|--------------------------|---|----------------------|--------------------------------------|----------------|----------|-----------------------------|
| Name of the Programme : | | All First Year (Except F&IS) | | | | | |
| Title of the Course : | | TAMIL | | Course Code: | 19UT301 | | |
| Year / Semester: | | 2020-2021/III | Section: | Total No. of Students: | | | |
| No.of Credits: | | 3 | | Total no. of Contact hours:45 | | | |
| | | | | | | | |
| S. No | Topic | Reference / text Book Page No. | Teaching Aids | Mode of Delivery No. of Hours | | | Cumulative Hours |
| | | T R12 / R 04 | | L | T | P | |
| Unit I | | | | | | | |
| 1 | சிலமம்மதிகாடம் | R1-1/R1 - 335 | BB | 2 | 2 | | 4 |
| 2 | மணிலமகரல | R1-4 /R2-171 | BB | 2 | 2 | | 4 |
| 3 | சீவக சிந்தாமணி | R1-9 /R3 -70 | BB | 1 | 1 | | 1 |
| Unit II | | | | | | | |
| 4 | கம்மணாமாயணம் | R1-14/1/ R4- 654 | | 1 | 1 | | 3 |
| 5 | இலயசு காவியம் | R1-35/ R5-59 | BB | 1 | 1 | | 3 |
| 6 | நாயகம் ஒரு காவியம் | R1-30/ R6-35 | BB | 1 | 1 | | 3 |
| Unit III | | | | | | | |
| 9 | அணிலி ந்திரிணா | R1-40/ R7-103 | BB | 1 | 1 | | 9 |

| SL.NO | Module | Lecture | Planned Topics | Date | Time | Total No of Hours Allotted | |
|--------------|---------------|----------------|-----------------------|-------------|-------------|-----------------------------------|--|
| 1 | 1 | Lecture1 | செய்தித் | | | | |

| | | | தாள்கள் வாசித்தல் | | | | |
|--|---|-----------------|---------------------------|-------------------------------------|--|--|--|
| 2 | | Lecture2 | கட்டுரை எழுத்து தல் | | | | |
| 3 | 2 | Lecture1 | புத்தகம் வாசித்தல்; | | | | |
| Gaps in the Syllabus –To meet Industrial Requirements | | | | | | | |
| | | | | | | | |
| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / | | | |
| | | | | Hours beyond the Time Table (HB) | | | |
| 1 | கட்டுரை எழுத்து தல் | Assignment | | 3 | | | |
| 2 | புத்தகம் வாசித்தல் விமலினம் செய்தல் | Seminar | 3 | | | | |
| 3 | நரடமுரை நிகழ்வுகரள கலந்தாலலாசித்த ல் | Peer teaching | 2 | | | | |
| Text Book | | | | | | | |
| T1 | சமூகத் தமிழ் -III – மாடநூல் சதாகுமபு – கல்லூரித் தமிழ்த்துறை சவளியீடு. | | | | | | |

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
| Reference Books | | | | | | | |
| R1 | சமர்஑தத் தமரீழ் -III – ஡ாடநுல் சதா஑ு஡்பு – கல் லுலுரீதத் தமரீழ்த் ஑ரை சவளரீயீடு. | | | | | | |
| R2 | ஑ா.஡ாணரீக்கவா஑ெகன் ; சரல஡்஡தரீகா஑ை஡். சென் ரன: ஁஡ா ஡தரீ஡்஡க஡் .1995. Print. | | | | | | |
| R3 | புலரீய+஑க் ஑்லகசரீகன் . ஡ணரீல஡கரல. ச஑ென் ரன: ஡ாணரீ புத்தக நரீரலய஡், ஡று஡தரீ஡்பு 2007. Print. | | | | | | |
| R4 | ஑ர஑ை஑ா ஑ாணா஡் . சீவகசரீந்தா஡ணரீ.; ச஑ென் ரன: ஡ுல் ரல நரீரலய஡், ஡ுதத்஡தரீ஡்பு 2001. Print. | | | | | | |
| R5 | க஡்஡஑஑ா஡ாயண஡் .சென் ரன: ஡஑ரை கா஡ை஡ா஑ெ஑்஑் ஡தரீ஡்஡க஡், 2003.PPrint. | | | | | | |
| R6 | கண் ஑தா஑ென் . ஁லயசு஑ா஑ரீய஡். தரீர஑ெசரீ ஑ா஡்஡ள்ளரீ : கரல கா஑ரீரீ சவளரீயீடு ஡தரீ஡்஡க஡், 1982. Print. | | | | | | |
| R7 | நாயக஡் ஑ரு கா஑ரீய஡். ஡஑ரை: ஡஑ரை கா஡ை஡ா஑ெ஑்஑் ஡தரீ஡்஡க஡், 2003. P Print. | | | | | | |
| R8 | ஑ை஡ரீ஡ள஡்.சு.஡த஡நா஡ன் ; ஑ை஡ரீ஑்ந்தரீ஑ை஑ா நாடக஡்.சென் ரன: கா஑் யா ஡தரீ஡்஡க஡்:2008Print | | | | | | |
| R9 | ஡யன் ஡ாட஑ு தத் தமரீழ் ஁லகக்கண஡் -஑ு஡஑ைன் ஡தரீ஡்஡க஡் ஡஑஑்஑ு஡் ஡ரீ஑ை.... | | | | | | |
| R10 | ஡ு.வ஑ைத஑ை஑ென் . தமரீழ் ஁லகக்கரீய வலை஑ாறு. ச஑ென் ரன : ஑ை஑ரீதத்தரீய ஑காசத஡ரீ. 2015Print. | | | | | | |
| E – Books /Library INFLIBNET RESOURCES | | | | | | | |
| E1 | N/A | | | | | | |
| Topics beyond Syllabus | | | | | | | |

| | | | | | | | |
|--------------------------------|-----|--|--|--|--|--|--|
| Module 1 | N/A | | | | | | |
| PORTION FOR EXAMINATION | | | | | | | |

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage (to be decided by the Department) | | | | |
|---------|-----------------------|--|--|--|--|--|--|
| 1. | SLIP / CLASS TEST | Unit/Portion to be decided by the Course Teacher and the HoD | 15% | | | | |
| 2. | I INTERNAL | UNIT - I, II, V | 50% | | | | |
| 3. | II INTERNAL | UNIT - III, IV, V | 50% | | | | |
| 4. | Summative Examination | ALL FIVE UNITS | 100% | | | | |

| Designation | | Prepared by | | | |
|--------------------------------|---------------------|---------------------|------------------|-------------|--|
| | | Name | Signature | Date | |
| Course Coordinator / In-charge | | Mrs.H.Geetha | | | |
| Programme Coordinator | | Mrs.N.Selvi | | | |
| Approved by | | | | | |
| | Name | Signature | | | |
| HoD | Mrs.N.Selvi | | Date | | |
| Dean Academics | Dr.S.Priya | | | | |
| Principal | Dr.R.Sujatha | | | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme : B.Sc (Animation, Viscom, CS, Networking, FIS, FS&PM)

Title of the Course : General English III

Course Code: 19UGE302

Year / Semester: II YEAR / III SEMESTER

Section:

Total No. of Students:

14

No.Of Credits: 3

Total no. of Contact hours: 45

Course Teacher (s) Name : Mrs.R.Suganthi Hepzibha, Ms.T.S.Sridevi, Mr.C.Senthilkumar and Mr.V.V.Sundaram

| S. No | Topic | Reference / text Book Page No. | Teaching Aids | Mode of Delivery No. of Hours | | |
|----------------|------------------------|--------------------------------------|------------------|-------------------------------|---|---|
| | | | | L | T | P |
| Unit I | | | | | | |
| 1 | SWOC - Introduction | R1-1 / R 06, 03 | BB | 3 | | |
| 2 | Strength, Weaknesses | R1-3 / R 06, 03 | BB/PPT/V | 3 | | |
| 3 | Opportunities, Threats | R1-6 / R 06, 03 | BB | 3 | | |
| Unit II | | | | | | |
| 1 | Of Ambition | R1-12 | BB/V | 3 | | |
| 2 | Of Studies | R1-20 | BB/V | 3 | | |
| 3 | Of Truth | R1-25 | BB/V | 3 | | |

| Unit III | | | | | | |
|--|--|---------------------|---------------|---|----------|--|
| 1 | Word Formation (Compound Words and Affixes) | R1-31 | PPT | 2 | 1 | |
| 2 | Direct and Indirect Speech | R1-33 | PPT | 2 | 1 | |
| 3 | Question Tags | R1-35 | PPT | 2 | 1 | |
| Unit IV | | | | | | |
| 1 | Synonyms and Antonyms (25 + 25) | R1-36 / R 04 | BB | 2 | 1 | |
| 2 | Idioms and Phrases (50) | R1-42 / R 04 | BB | 2 | 1 | |
| 3 | One Word Substitution (50) | R1-46 / R 04 | BB | 2 | 1 | |
| Unit V | | | | | | |
| 1 | Correct usage of Nouns and Pronouns | R1 | BB/PPT | 2 | 1 | |
| 2 | Correct usage of Adjectives | R1 | BB/PPT | 2 | 1 | |
| 3 | Spotting the errors (Nouns, Pronouns and Adjectives) | R1 | BB/PPT | 2 | 1 | |
| | | | | | | |
| * L - Lecture T - Tutorial (Problems / Example Programs / Revision Classes) P - Practical | | | | | | |
| | | | | | | |
| * LCD / PPT / Black Board (BB) / Worksheet(WS) / Video (V) / Group Discussion (GD) / Blended & Flipped (BF) / Open educational resources (OER) media that are freely accessible, Google tools like Drive (GRV) , Google Docs (GDo), and Google Slides(GS) and Whiteboards(WB),Wikipedia (W) any other tools may also be included. [Mark the abbreviation in the teaching aids column] | | | | | | |
| Text Books | | | | | | |
| T1 | General English-III, A Complied book, covering all the topics of the syllabus prepared by the Department of English. | | | | | |
| Reference Books | | | | | | |
| R1 | Bacon Francis. Complete Essays. Dover Publications: Dover Ed edition, | | | | | |

| | | | | | | |
|---|---|--|--|--|--|--|
| | 2008. Print. | | | | | |
| R2 | Srivasan Hema. Communication Skills . Bangalore: Frank Brothers & Co. Ltd, 2004. Print. | | | | | |
| R3 | Wren & Martin. High School English Grammar & Composition . India: S.Chand & Company Ltd, 1995. Print. | | | | | |
| R4 | G.Radhakrishna Pillai. Emerald English Grammar and Composition . Bangalore: Emerald Publisher, 1998. Print. | | | | | |
| R5 | Dr.K.Alex. Soft Skills . New Delhi: S.Chand& Company Ltd, 1997. Print. | | | | | |
| R6 | Dr. Gupta C.B. Business Correspondence & Reporting -Business Law, Business Correspondence & Reporting (CA-Foundation) . New Delhi: Taxmann, 2018. Print. | | | | | |
| R7 | A.P.Bhardwaj. General English for Competitive Examinations . New Delhi: Dorling Kindersley (India) Pvt. Ltd, 2013. Print. | | | | | |
| | | | | | | |
| E – Books /Library INFLIBNET RESOURCES | | | | | | |
| E1 | https://nlist.inflibnet.ac.in/search/Record/EBC483375 | | | | | |
| E2 | https://nlist.inflibnet.ac.in/search/Record/EBC481114 | | | | | |
| E3 | https://nlist.inflibnet.ac.in/search/Record/EBC1864716 | | | | | |

| Gaps in the Syllabus | | | | | | |
|---|--------------------------|------------------------|-----------------------------|--|---|-----------------------------------|
| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / | Hours beyond the Time Table (HB) | |
| 1 | Self Introduction | Assignment | | 3 | | |
| 2 | Extempore | Seminar | 3 | | | |
| 3 | On Any Modules | Peer teaching | 2 | | | |
| 4 | NA | Industrial Visit | NA | NA | | |
| Proposed Actions can be Assignments , Seminars, Peer Teaching, Industrial Visit , Others (if any) | | | | | | |
| COURSE PLAN FOR CONTENT BEYOND SYLLABUS | | | | | | |
| SI.NO | Module | Lecture | Planned Topics | Date | Time | Total No of Hours Allotted |
| 1 | 1 | Lecture1 | Lecture 1 | Newspaper/Article reading | | |
| 2 | 2 | Lecture2 | Lecture 2 | Collecting & Reporting News | | |
| 3 | 3 | Lecture3 | Lecture 3 | Learning a New Word Everyday | | |
| 4 | 4 | Lecture 4 | Lecture 4 | Public Speaking | | |

| PORTION FOR EXAMINATION | | | | | | |
|---------------------------------|-------------------------|--|-------------------------|---|------------------|--|
| Sl. No. | Mode | Proposed Portions to be Covered | | Proportion (Portion) in Percentage (to be decided by the Department) | | |
| 1 | SLIP / CLASS TEST | UNIT - I | | 15% | | |
| 2 | I INTERNAL | UNIT - I, II, V | | 50% | | |
| 3 | II INTERNAL | UNIT - III, IV, V | | 50% | | |
| 4 | Summative Examination | ALL 5 UNITS | | 100% | | |
| | | | | | | |
| | | | | | | |
| Prepared by | | | | | | |
| Designation | | | Name | | Signature | |
| Course Coordinator / In-charges | | | Mr.C.Senthilkumar | | | |
| Module Coordinator | | | Mrs.R.Suganthi Hepzibha | | | |
| Approved by | | | | | | |
| | Name | Signature | Date | | | |
| HoD | Mrs.R.Suganthi Hepzibha | | | | | |
| Dean Academics | Dr.S.Priya | | | | | |
| Principal | Dr.R.Sujatha | | | | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme : B.Sc Food Science and Processing Management

Programme Code : FM1011

Title of the Course : Cereals, Pulses and Oilseeds Processing

Course Code : 19BF301

Year / Semester : II/ III

Total No. of Students 14

No of Credits : 4

Total No. of Contact Hours : 60

Course Teacher (s) Name : Ms.A.Sona

Corresponding lab Paper : Yes

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-----------------|---|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Rice – Physicochemical properties | R1 | BB | 1 | | | 11 |
| 2. | Rice – milling | T1 | BB | 2 | | | |
| 3. | Parboiling | T1 | BB | 1 | | | |
| 4. | Ageing of rice | R1 | BB | 1 | | | |
| 5. | Utilization of by products | R1 | BB | 1 | | | |
| 6. | Barley- Milling - pearl barley | R1 | BB | 1 | | | |
| 7. | Barley- Milling - barley flakes & flour | R1 | BB | 1 | | | |

| | | | | | | | |
|-------------------|--------------------------------------|----|------------|---|---|--|----|
| 8. | Beer preparation | R1 | BB, V | 2 | | | |
| 9. | Revision | | | | 1 | | |
| UNIT – II | | | | | | | |
| 10. | Wheat – types | R1 | BB | 1 | | | 11 |
| 11. | Wheat – milling | T1 | BB | 2 | | | |
| 12. | Wheat – flour grade | R1 | BB | 1 | | | |
| 13. | Wheat – flour treatments – bleaching | R1 | BB | 1 | | | |
| 14. | Wheat – flour treatments – maturing | R1 | BB | 1 | | | |
| 15. | Wheat – flour for various purposes | R1 | BB, PPT | 2 | | | |
| 16. | Technology of dough development. | R1 | BB | 2 | | | |
| 17. | Revision | | | | 1 | | |
| UNIT – III | | | | | | | |
| 18. | Milling (wet and dry) | R1 | BB | 1 | | | 11 |
| 19. | Processing of Ragi | E2 | BB | 2 | | | |
| 20. | Processing of Bajra | R1 | BB | 2 | | | |
| 21. | Processing of Sorghum | R1 | BB | 2 | | | |
| 22. | Processing of Foxtail | E1 | BB | 1 | | | |
| 23. | Commercial milling methods | R1 | BB | 2 | | | |
| 24. | Revision | | | | 1 | | |
| UNIT – IV | | | | | | | |

| | | | | | | | |
|--------------------|---|----|------------|---|---|--|----|
| 25. | Milling of pulses – Dry milling | W1 | BB | 1 | | | 11 |
| 26. | Milling of pulses – wet milling | W1 | BB,V | 2 | | | |
| 27. | Toxicity of pulses | T1 | BB | 2 | | | |
| 28. | Improved milling methods | E3 | BB, PPT | 3 | | | |
| 29. | Effect of processing on nutritional quality | | BB | 2 | | | |
| 30. | Revision | | | | 1 | | |
| UNIT - V | | | | | | | |
| 31. | Processing of Oilseeds - Introduction | W1 | BB | 1 | | | 11 |
| 32. | Extraction of oil | W1 | BB | 1 | | | |
| 33. | Refining sources of protein | W1 | BB | 2 | | | |
| 34. | Properties and uses | W1 | BB | 2 | | | |
| 35. | Protein texturization | W1 | BB | 2 | | | |
| 36. | Fibre spinning | W1 | BB | 2 | | | |
| 37. | Revision | | | 1 | | | |
| TOTAL HOURS | | | | | | | 55 |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS

| Sl.NO | Module | Lecture | Planned Topics | Total No of Hours Allotted |
|-------|--------|----------|------------------------------|----------------------------|
| 1 | 1 | Lecture1 | Commercial milling of Pulses | 1 |

Gaps in the Syllabus –To meet Industrial Requirements

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|-------------------|-----------------|----------------------|--|
| 1. | Beer Preparation | Seminar | 2 | HT |
| 2. | Oil Refining | Assignment | 2 | HT |

Resources

Text Books

| | |
|----|--|
| T1 | Kent, Technology of Cereal, 5 th Ed, Pergamon Press, 2003 |
|----|--|

Reference Books

| | |
|----|--|
| R1 | Shakuntala Manay N & Shadaksharaswamy M (2013) “Food Facts and Principles” New Age International (P) Ltd., Publishers |
|----|--|

Web Resources

| | |
|----|---|
| W1 | http://www.ignouhelp.in/ignou-mscdfsm-study-material/ |
|----|---|

E – Books /Library INFLIBNET RESOURCES

| | |
|----|--|
| E1 | Keshavan Niranjana & Nitya Sharma (2017) “Foxtail millet: Properties, processing, health benefits, and uses” |
| E2 | Barjinder Pal Kaur, Rachna Sehrawat, Rakhi Singh & Savita Rani (2018) “Pearl millet processing: a review” |
| E3 | Manikantan Ramarathinam & Rajesh Kumar Vishwakarma (2005) “Pulse Milling Technologies” |

Topics beyond Syllabus

| | |
|----------|---|
| Module 1 | http://www.ignouhelp.in/ignou-mscdfsm-study-material/ |
|----------|---|

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage (to be decided by the Department) |
|---------|--------------------------|---------------------------------|--|
| 1 | SLIP / CLASS TEST | ALL FIVE UNITS | 20% |
| 2 | I INTERNAL | UNIT - I, II, III | 50% |
| 3 | II INTERNAL | UNIT - III, IV, V | 50% |
| 4 | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|----------------------|------------------|-------------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | Ms.A.Sona | | |
| Programme Coordinator | Mrs. P. Deepalakshmi | | |

| Approved by | | | |
|-----------------------|--------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Science and Processing Management

Programme Code : FM1011

Title of the Course: Fruit and Vegetable Processing

Course Code : 19BF302

Year / Semester: II/ III

Total No. of Students : 14

No of Credits: 4

Total No. of Contact Hours: 60

Course Teacher Name: Mrs. P. Deepalakshmi

Corresponding lab Paper: No

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|---------------------------------|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Harvesting method | T 150-219 | BB | 2 | | | 12 |
| 2. | Maturity indices for Fruits | | BB | 2 | | | |
| 3. | Maturity indices for Vegetables | | BB | 2 | | | |
| 4. | Methods of Measurement | | BB | 2 | | | |
| 5. | Grading | | BB | 1 | | | |
| 6. | Transportation | | BB | 1 | | | |
| 7. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – II | | | | | | | |

| | | | | | | | |
|-------------------|--|-----------|------|---|--|---|----|
| 8. | Post-harvest handling operations | R 2-13 | BB | 3 | | | 11 |
| 9. | Preprocessing operations – Precooling | R 18-31 | BB | 2 | | | |
| 10. | Curing, Waxing and Storage | | BB | 3 | | | |
| 11. | Ripening – Impact of gases | | BB | 1 | | | |
| 12. | Revision / Test / Quiz | | | | | 2 | |
| UNIT – III | | | | | | | |
| 13. | Classification of fruits and vegetables | R180-221 | BB | 2 | | | 11 |
| 14. | Quality attributes of fresh fruit and vegetables | | BB | 2 | | | |
| 15. | Contribution of constituents of fruits and vegetables to considerations | | BB | 2 | | | |
| 16. | Health Factors Influencing fruits and Vegetables | | BB | 2 | | | |
| 17. | Toxicants & Food Safety | | BB | 1 | | | |
| 18. | Revision / Test / Quiz | | | | | 2 | |
| UNIT – IV | | | | | | | |
| 19. | Preservation by reduction of water content – drying | R 360-399 | BB | 2 | | | 12 |
| 20. | Preservation of fruits and vegetables Jam, Jelly | | BB | 2 | | | |
| 21. | Pickles, Ketchup and Sauces. | | BB | 3 | | | |
| 22. | Chemical preservation - preservation of vegetables by acidification, preservation with sugar | | BB/V | 3 | | | |
| 23. | Revision / Test / Quiz | | | | | 2 | |
| UNIT – V | | | | | | | |
| 24. | Dehydrated product technology | T 421-445 | BB | 2 | | | 12 |
| 25. | Semi-processed fruit products technology | | BB | 2 | | | |

| | | | | | | | |
|--------------------|---|-------|------|---|---|--|-----------|
| 26. | Fruit sugar preserves technology | | BB/V | 2 | | | |
| 27. | Fruit beverage technology- fresh cut fruit and vegetable technology | | BB | 2 | | | |
| 28. | Sensory evaluation methods | R 315 | BB | 2 | | | |
| 29. | Revision / Test / Quiz | | | | 2 | | |
| TOTAL HOURS | | | | | | | 58 |

Text Book

| | |
|----|--|
| T1 | Shakuntala Manay, (2008), Food Facts and Principles, Third edition, New Age International Ltd Publishers |
|----|--|

Reference Books

| | |
|----|---|
| R1 | Srilakshmi, B. (2006), Food Science, New Age International (P) Ltd Publishers |
| R2 | |

Web Resources

| | |
|----|---|
| W1 | https://hasanuzzaman.weebly.com/uploads/9/3/4/0/934025/postharvest_technology.pdf |
| W2 | www.slideshare.net>MairajKhan 10 Post harvest handling-Slide Share |
| W3 | |
| W4 | |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=15 |
| E2 | |
| E3 | |
| E4 | |

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|---------------|---|------------------------|-----------------------------|---|
| 1. | Recent techniques in Fruit & Vegetable Processing | Assignment | 1 | HB |
| 2. | Vegetable & Fruit Preservation methods | Peer Teaching | 2 | HT |
| | | | | |
| | | | | |
| | | | | |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|-----------------------------------|----------------------------|
| 1 | I | Lecture | PPT | Spoilage of fruits and vegetables | 1 |
| 2 | II | | Audio- Visual | Equipment used for processing | 1 |
| 3 | | | | | |
| 4 | | | | | |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|--------------------------|--|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – 1- 5 | 20% |
| 2. | I INTERNAL | Unit - I, II, III (upto Quality attributes of fruits and vegetables) | 50% |
| 3. | II INTERNAL | Unit – III (from Health Factors), IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|----------------------|------------------|-------------|
| Assistant Professor | Name | Signature | Date |
| Course Coordinator / In-charge | Mrs. P. Deepalakshmi | | |
| Programme Coordinator | Mrs. P. Deepalakshmi | | |

| Approved by | | | |
|-----------------------|---------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R. Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE
COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: B.Sc -Food Science and Processing Management Programme Code : FM1011

Title of the Course : Bakery & Confectionery Theory Course Code : 19BF303

Year / Semester : II / III Total No. of Students : 14

No of Credits : 3 Total No. of Contact Hours : 60

Course Teacher (s) Name: Mr.K.Perumal Kannan Corresponding lab Paper : YES

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-----------------|--|----------------------------------|----------------|---------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Introduction to bakery | (T2-1-7) | BB | 1 | 0 | 0 | 1 |
| 2. | Baking principles | (T2-205) | BB | 1 | 0 | 0 | 1 |
| 3. | Role of wheat flour in bakery products | (T2-14-25) | BB | 1 | 0 | 0 | 1 |
| 4. | Types of flour, | (T2-14-25) | BB | 1 | 0 | 0 | 1 |
| 5. | Composition of flour | (T2-14-25) | BB | 1 | 0 | 0 | 1 |
| 6. | Characteristics of good quality flour | (T2-14-25) | BB | 1 | 0 | 0 | 1 |

| UNIT – II | | | | | | | |
|-------------------|---|--------------|----|---|---|---|---|
| 1. | Raw ingredients of baking | (T2-26-30) | BB | 1 | 0 | 0 | 1 |
| 2. | Functions in baking | (T2-26-30) | BB | 1 | 0 | 0 | 1 |
| 3. | Sugar | (T2-26-30) | BB | 1 | 1 | 0 | 2 |
| 4. | Eggs | (T2-34-36) | BB | 1 | 1 | 0 | 2 |
| 5. | Fats | (T2-31-33) | BB | 1 | 1 | 0 | 2 |
| 6. | Leavening agents | (T2-44-46) | BB | 1 | 1 | 0 | 2 |
| UNIT – III | | | | | | | |
| 1 | Other ingredients of baking and their functions in baking | (T2-37-76) | BB | 1 | 1 | 0 | 2 |
| 2 | Yeast | (T2-37-41) | BB | 1 | 1 | 0 | 2 |
| 3 | Water | (T2-47-49) | BB | 1 | 1 | 0 | 2 |
| 4 | Salt | (T2-42-43) | BB | 1 | 1 | 0 | 2 |
| 5 | Moistening agents | (T2-47-49) | BB | 1 | 1 | 0 | 2 |
| 6 | Flavor & Colors | (T2-11-13) | BB | 1 | 1 | 0 | 2 |
| UNIT – IV | | | | | | | |
| 1 | Preparation methods of cake | (T2-77-98) | BB | 1 | 1 | 0 | 2 |
| 2 | Preparation methods of Cookies | (T2-111-117) | BB | 1 | 1 | 0 | 2 |

| | | | | | | | |
|-----------------|--|--------------|----|---|---|---|----|
| 3 | Preparation methods of Biscuits | (T2-111-117) | BB | 1 | 1 | 0 | 2 |
| 4 | Factors affecting the quality of these products. | (T2-111-117) | BB | 1 | 1 | 0 | 2 |
| UNIT – V | | | | | | | |
| 1 | Identify different forms of coco and chocolate | (T2-8-10) | BB | 1 | 1 | 0 | 2 |
| 2 | Cooking techniques | (T2-8-10) | BB | 1 | 1 | 0 | 2 |
| 3 | Process of chocolate tempering | (T2-8-10) | BB | 1 | 1 | 0 | 2 |
| 4 | Storage of confectionery products | (T2-8-10) | BB | 1 | 1 | 0 | 2 |
| TOTAL HRS | | | | | | | 45 |

Text Books

| | |
|----|---|
| T1 | Srilakshmi,B.Food science, New Age International (P) |
| T2 | Yogambal Sivalingam,Theory of Bakery & Confectionery Visaga Publication,2005. |

Reference Books

| | |
|----|--|
| R1 | Dubey S. <i>Bakery</i> , Wheat Associates of India, 1979. |
| R2 | Malik ,R.K.and Dhingra,K.C. <i>Technology of Bakery products</i> , Modern Bakery |
| R3 | Matz, S.A <i>Bakery Technology</i> , Packaging, Nutrition, Product Development and Quality Assurance, Elsevier, Science publisher Limited, New York, USA, 1989 |
| R4 | Thangam E. Philip <i>Modern Cookery</i> (Vols I and II), Orient Long Man, Mumbai, 1999. |

| | |
|----|---|
| R5 | Wade, P. <i>Biscuits, cookies and cracker</i> , Vol. 1., Elsevier Applied science publishers Ltd., New York, USA, 1988. |
|----|---|

Web Resources

| | |
|----|---|
| W1 | https://www.google.com/search?q=Wheat&rlz=1C1CHBD_enIN912IN912&oq=Wheat+&aqs=chrome..69i57j0i67i457j0i67i6.11023j0j15&sourceid=chrome&ie=UTF-8 |
| W2 | https://www.google.com/search?q=Types+of+sugar&rlz=1C1CHBD_enIN912IN912&oq=Types+of+sugar&aqs=chrome..69i57j0i457j0i6.16355j0j15&sourceid=chrome&ie=UTF-8 |
| W3 | https://www.google.com/search?rlz=1C1CHBD_enIN912IN912&sxsrf=ALeKk00QQGp-QzB47AgBKxSNYAWENa3QCQ%3A1604912055145&ei=twOpX6q0CKCO4-EP3feBsAU&q=yeast |
| W4 | NA |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://www.google.com/search?q=E-Book+2.+Role+of+wheat+flour+in+bakery+products&rlz=1C1CHBD_enIN912IN912&oq=E-Book+2.%09Role+of+wheat+flour+in+bakery+products&aqs=chrome..69i57.15407j0j15&sourceid=chrome&ie=UTF-8 |
| E2 | https://www.google.com/search?q=leavening+agents+in+baking&rlz=1C1CHBD_enIN912IN912&oq=leavening+agents+in+&aqs=chrome.0.0i457j0j69i57j0i15.20095j0j15&sourceid=chrome&ie=UTF-8 |
| E3 | https://www.google.com/search?q=flavor%26+color+uses+in+bakery&rlz=1C1CHBD_enIN912IN912&oq=flavor%26+color+uses+in+bakery&aqs=chrome..69i57.22648j0j15&sourceid=chrome&ie=UTF-8 |
| E4 | https://www.google.com/search?rlz=1C1CHBD_enIN912IN912&ei=Qcy4X4mmLYPb9QP9j5iABA&q=cake+cookies+chocolate&oq=Cakes+ |

%26+Cookies%2C+Cho&gs&scient=psy-ab

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---------------------------------|--------------------|----------------------|--|
| 1. | Wheat milling Process | <i>Assignments</i> | 2 | HB |
| 2. | Sugar Technology | <i>Assignments</i> | 2 | HB |
| 3. | Types of Bread & Bread Rolls | <i>Assignments</i> | 2 | HB |
| 4. | Bakery & Confectionery Training | <i>Seminars</i> | 2 | HT |
| 5. | Cookies & Biscuits | <i>Assignments</i> | 2 | HB |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| SL.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|------------------------------|----------------------------|
| 1 | - | Webinar | PPT | Food processing & Technology | 3 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|--------------------------|---------------------------------|------------------------------------|
| 1. | I INTERNAL | I,II units,III (upto 3.3) | 50% |
| 2. | II INTERNAL | III(from 3.4) IV,V units . | 50% |
| 3. | End Semester Examination | All five units | 100% |

| Designation | Prepared by | | |
|--------------------------------|---------------------|-----------|------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | Mr.K.Perumal Kannan | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

Approved by

| | Name | Signature | Date |
|-----------------------|--------------|------------------|-------------|
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Science and processing Management

Course Code : 19BF306

Title of the Course: Cereals and Pulses Practical

Year / Semester : II / III

No of Credits : 2 Credits

Total No. of Students: 14

Course Teacher Name: Mrs. M.Venkata Subbulakshmi

Total No. of Contact Hours: 60

| Sl. No. | Week No. | Name of the Experiment | Page No in the Lab Manual | No. of Hours | Cumulative Hours |
|----------------|-----------------|--|----------------------------------|---------------------|-------------------------|
| 1 | 1 | The anatomy and physical properties of the rice grain. | 01 | 4 + 2 | 6 |
| 2 | 2 | Physical characteristics of Paddy | 11-17 | 4 + 2 | 6 |
| 3 | 3 | Methods of separation. | 19-25 | 4 + 2 | 6 |
| 4 | 4 | Estimation of Volume expansion and solid loss of rice on cooking | 27-37 | 4 + 2 | 6 |
| 5 | 5 | Estimation of water holding capacity of flours. | 39-49 | 4 + 2 | 6 |
| 6 | 6 | Estimation of bulk density of millets. | 51-57 | 4 + 2 | 6 |
| 7 | 7 | Estimation of sphericity of millets. | 59-61 | 4 + 2 | 6 |
| 8 | 8 | . Foaming capacity and water uptake of composite flour | 63-67 | 4 + 2 | 6 |

| | | | | | |
|----|----|--|-------|---------------------|-----------|
| 9 | 9 | Estimation of gelatinization | 69-71 | 4 + 2 | 6 |
| 10 | 10 | Study of dextrinization and sensory evaluation | 73-75 | 4 + 2 | 6 |
| | | | | Total No. of. Hours | 60 |

Gap in the Syllabus

| SL. NO | Name of the Topic | No of Hours Allotted |
|--------|---|----------------------|
| 1. | General Points to be remembered in the laboratory | 2 |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS

| SI.NO | Topic | Total No of Hours Allotted |
|-------|-------------------|----------------------------|
| 1 | Nutrient Analysis | 2 |

| Designation | Prepared by | | |
|--------------------------------------|-----------------------------|-----------|------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / Incharge | Mrs. M.Venkata Subbulakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

| Approved by | | | |
|-----------------------|---------------|-----------|------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr. R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE
COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: B.Sc -Food Science and Processing Management

Programme Code : FM1101

Title of the Course : Bakery & Confectionery Practical

Course Code : 19BF307

Year / Semester : II / III

Total No. of Students : 14

No of Credits : 3

Course Teacher Name: Mr.K.Perumal Kannan

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-----------------|---|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 7. | Introduction to ingredients / Equipment | (P 138-145) | V | 1 | 0 | 0 | 1 |
| 8. | Identification and uses of equipment – large, small and utilities | (P 138-145) | V | 1 | 0 | 0 | 1 |
| 9. | Ingredients – Types of flour | (P 14-49) | V | 1 | 0 | 0 | 1 |
| 10. | Sugar | (P 14-49) | V | 1 | 0 | 0 | 1 |
| 11. | Nuts and Dry fruits | (P 03-04) | V | 1 | 0 | 0 | 1 |
| 12. | Shortenings | (P 14-49) | V | 1 | 0 | 0 | 1 |
| 13. | Leavening agents | (P 14-49) | V | 1 | 0 | 0 | 1 |

| | | | | | | | |
|-------------------|--|-------------|---|---|---|---|---|
| | | | | | | | |
| UNIT – II | | | | | | | |
| 1. | Mixing Methods | (P 77-98) | V | 0 | 0 | 1 | 1 |
| 2. | Basic steps involved in mixing ingredients | (P 77-98) | V | 0 | 0 | 1 | 1 |
| 3. | Kneading | (P 77-98) | V | 0 | 0 | 1 | 1 |
| 4. | Stirring | (P 77-98) | V | 0 | 0 | 1 | 1 |
| 5. | Whipping. | (P 77-98) | V | 0 | 0 | 1 | 1 |
| 6. | Creaming. | (P 77-98) | V | 0 | 0 | 1 | 1 |
| | | | | | | | |
| UNIT – III | | | | | | | |
| 1 | Simple yeast fermented products | P (146-205) | V | 0 | 0 | 1 | 1 |
| 2 | Bread Sticks | P (146-205) | V | 0 | 0 | 1 | 1 |
| 3 | Bread Rolls | P (146-205) | V | 0 | 0 | 1 | 1 |
| 4 | Hand and Soft Rolls | P (146-205) | V | 0 | 0 | 1 | 1 |
| 5 | Sour dough | P (146-205) | V | 0 | 0 | 1 | 1 |
| | | | | | | | |
| UNIT – IV | | | | | | | |
| 1 | Flavored Breads | P (146-205) | V | 0 | 0 | 1 | 1 |

| | | | | | | | |
|-------------------|---|-------------|---|---|---|---|---|
| 2 | Basic Buns | P (146-205) | V | 0 | 0 | 1 | 1 |
| 3 | Fruit Buns | P (146-205) | V | 0 | 0 | 1 | 1 |
| 4 | Hot Cross Buns | P (146-205) | V | 0 | 0 | 1 | 1 |
| 5 | Tomato Rolls and Garlic Rolls | P (146-205) | V | 0 | 0 | 1 | 1 |
| UNIT – V | | | | | | | |
| 1 | Bread Loafs - Milk Bread | P (146-205) | V | 0 | 0 | 1 | 1 |
| 2 | Bread Loaf, Current Loaf | P (146-205) | V | 0 | 0 | 1 | 1 |
| 3 | Whole Meal Bread | P (146-205) | V | 0 | 0 | 1 | 1 |
| 4 | Masala Bread & Raisin Bread | P (146-205) | V | 0 | 0 | 1 | 1 |
| UNIT – VI | | | | | | | |
| 1 | Biscuits & Cookies - Plain biscuits | P (161-167) | V | 0 | 0 | 1 | 1 |
| 2 | Piping biscuits; cherry knobs | P (161-167) | V | 0 | 0 | 1 | 1 |
| 3 | langue –de – chats; (cats tongue) salted biscuits | P (161-167) | V | 0 | 0 | 1 | 1 |
| 4 | Nut biscuits | P (161-167) | V | 0 | 0 | 1 | 1 |
| 5 | Coconut biscuits | P (161-167) | V | 0 | 0 | 1 | 1 |
| 6 | Melting moment | P (161-167) | V | 0 | 0 | 1 | 1 |
| UNIT – VII | | | | | | | |

| | | | | | | | |
|-----------|--|-------------|---|---|---|---|----|
| 1 | Prepare confectioners custard and Mousse | P (194-196) | V | 0 | 1 | 1 | 2 |
| TOTAL HRS | | | | | | | 35 |

Text Book

| | |
|----|---|
| T1 | Srilakshmi,B.Food science, New Age International (P) |
| T2 | Yogambal Sivalingam,Theory of Bakery & Confectionery Visaga Publication,2005. |

Reference Books

| | |
|----|--|
| R1 | Dubey S. <i>Bakery</i> , Wheat Associates of India, 1979. |
| R2 | Malik ,R.K.and Dhingra,K.C. <i>Technology of Bakery products</i> , Modern Bakery |
| R3 | Matz, S.A <i>Bakery Technology</i> , Packaging, Nutrition, Product Development and Quality Assurance, Elsevier, Science publisher Limited, New York, USA, 1989 |
| R4 | Thangam E. Philip <i>Modern Cookery</i> (Vols I and II), Orient Long Man, Mumbai, 1999. |
| R5 | Wade, P. <i>Biscuits, cookies and cracker</i> , Vol. 1., Elsevier Applied science publishers Ltd., New York, USA, 1988. |

Web Resources

| | |
|----|---|
| W1 | https://www.google.com/search?bih=613&biw=785&rlz=1C1CHBD_enIN912IN912&hl=en&tbm=vid&sxsrf=ALeKk03wisRysKh39DnpgTbjpPBGe8yobA%3A1604914081236&ei= |
| W2 | NA |
| W3 | https://www.google.com/search?q=cold+dessert+images&source=lmns&tbm=vid&bih=800&biw=1821&rlz=1C1CHBD_enIN912IN912&hl=en&sa=X&ved=2ahUKEwiriYrKkvXs |
| W4 | https://www.google.com/search?rlz=1C1CHBD_enIN912IN912&sxsrf=ALeKk00f4-Jjdm8uQoMTbeRtgT8hThPs- |

| | |
|----|---|
| | w%3A1604913764144&ei=ZAqpX8ypCKqd4-EPrJeOeA&q=varietie |
| W5 | https://www.google.com/search?q=types+of+bread&rlz=1C1CHBD_enIN912IN912&oq=Types+of+bread&aqs=chrome.0.0i433i457j0l7.12879j0j15&sourceid=chrome&ie=UTF-8 |
| W6 | https://www.google.com/search?q=varieties+Biscuits+%26+cookies&rlz=1C1CHBD_enIN912IN912&sxsrf=ALeKk01FXN1vOe4T9RIRhT7XguLGLdD5OA:1604913934914&source=lnms |
| W7 | https://www.google.com/search?q=cold+dessert+images&tbm=isch&ved=2ahUKEwjS0KKskvXsAhXN_TgGHZOTCqEQ2-cCegQIABAA&oq=Cold+dess&gs_lcp=CgNpbWcQARgCMgII |

E – Books /Library INFLIBNET RESOURCES

| | |
|--------|---|
| E 1 | https://www.google.com/search?rlz=1C1CHBD_enIN912IN912&ei=Qcy4X4mmLYPb9QP9j5iABA&q=cake+cookies+chocolate&oq=Cakes+%&sclient=psy-ab |
| E 2 | https://www.google.com/search?rlz=1C1CHBD_enIN912IN912&ei=o8y4X_W7K8H99QP-- |
| E 3 | https://www.google.com/search?rlz=1C1CHBD_enIN912IN912&ei=btG4X_XMLs2AyAOT94egCg&q=Cookies+%26+biscuits&oq=Cookies+%26+biscuits&gs_ |
| E 4 | https://www.google.com/search?rlz=1C1CHBD_enIN912IN912&ei=wtG4X_7XDLvUrtoP-Iqi2AE&q=Custard+%26+Cold+deserts&oq=Custard+%26+Cold+deserts&gs_lcp |

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---------------------------------|--------------------|----------------------|--|
| 3. | Bakery Major & Small equipments | <i>Assignments</i> | 2 | HB |
| 4. | Types of Bread | <i>Assignments</i> | 2 | HB |
| 3. | Bread faults & Remedies | <i>Assignments</i> | 2 | HB |
| 4. | Essential ingredients | <i>Seminars</i> | 2 | HT |
| 5. | Cakes & function of ingredients | <i>Assignments</i> | 2 | HB |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| SI.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|---|----------------------------|
| 1 | - | Seminars | Video | Cold desserts-Jelly, Mouse, Soufflé, Gateaux, Bread based desserts, | 3 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|----------------|--------------------------|--|---|
| 1. | I INTERNAL | I,II III, IV units | 60% |
| 2. | II INTERNAL | V, VI, VII units. | 40% |
| 3. | End Semester Examination | All seven units | 100% |

| Designation | Prepared by | | |
|---------------------------------------|---------------------|------------------|-------------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | Mr.K.Perumal Kannan | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

Approved by

| | Name | Signature | Date |
|-----------------------|--------------|------------------|-------------|
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Processing and Processing Management

Programme Code: FM1011

Title of the Course: Food Additives

Course Code : 19BF304

Year / Semester : II/III

Total No. of Students: 14

No of Credits : 2

Total No. of Contact Hours: 30

Course Teacher Name: Mrs.M .Venkata Subbulakshmi

Corresponding lab Paper : No

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-----------------|--|-------------------------------|----------------|---------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Food additives definition – Need for Food additives | R2(1-8) | BB | 1 | 1 | | |
| 2. | Classification | | BB | 2 | | | |
| 3. | Determination of the limit for addition and permissible limits | | BB | 1 | | | |
| 4. | Revision/ Class test/Quiz | | BB | 1 | | | |
| | | | | | | 6 | |

| UNIT – II | | | | | | | | |
|------------|--|-----------|----|---|---|--|--|---|
| 5. | Types, chemical properties, levels of additions in individual products, toxicity data of Acidulants and Anti Oxidant | R2(9-32) | BB | 1 | 1 | | | 6 |
| 6. | Types, chemical properties, levels of additions in individual products, toxicity data of Preservatives | | BB | 1 | | | | |
| 7. | Types, chemical properties, levels of additions in individual products, toxicity data of Gums and Emulsifier | | BB | 2 | | | | |
| 8. | Revision/ Class test/Quiz | | BB | 1 | | | | |
| UNIT – III | | | | | | | | |
| 9. | Types, chemical properties, levels of additions in individual products, toxicity data of Dough Conditioner and flour improvers | W1 (1-7) | BB | 2 | 1 | | | 5 |
| 10. | Types, chemical properties, levels of additions in individual products, toxicity data of Humectants | | BB | 1 | | | | |
| 11. | Types, chemical properties, levels of additions in individual products, toxicity data of Enzymes and Starches | | BB | 1 | | | | |
| 12. | Revision/ Class test/Quiz | | BB | 1 | | | | |
| UNIT – IV | | | | | | | | |
| 13. | Types, chemical properties, levels of additions in individual products, toxicity data of Colourants | R2(32-33) | BB | 1 | 1 | | | 6 |
| 14. | Types, chemical properties, levels of additions in individual products, toxicity data of Natural and artificial Flavourants and flavor enhancers | R2(30-32) | BB | 2 | | | | |
| 15. | Types, chemical properties, levels of additions in individual products, toxicity data of Fat substitutes and Replacers. | W2(1-5) | BB | 1 | | | | |
| 16. | Revision/ Class test/Quiz | | BB | 1 | | | | |
| UNIT – V | | | | | | | | |
| 17. | Types, chemical properties, levels of additions in individual products, toxicity data of Sweeteners -Natural and synthetic, | W4(1-12) | BB | 1 | | | | |

| | | | | | | | |
|--------------|--|--|----|---|---|--|-----------|
| 18. | Chelating agents, antibrowning agents, Nutritional Additives | | BB | 2 | 1 | | 5 |
| 19. | Revision/ Class test/Quiz | | BB | 1 | | | |
| TOTAL | | | | | | | 28 |

Text Book

| | |
|----|---|
| T1 | Food additives by Brannen A.L., Davidson P.M., Salminen S. and Thorngate J.H. Second Edition, Revised and Expanded. Marcel Dekker Inc. USA, 2002. |
|----|---|

Reference Books

| | |
|----|--|
| R1 | Handbook of Food additives by Thomas Furia |
| R2 | Food Additive R. M. Pandey and S. K. Upadhyay Division of Genetics, Plant breeding & Agrotechnology, National Botanical Research Institute, Lucknow, India |

Web Resources

| | |
|----|--|
| W2 | www.//http//.Dough_Conditioner.pdf |
| W3 | 74033L66_FAT_REPLACERS_final.pdf |
| W4 | Petra Koski Fat substitutes1.pdf |
| W5 | fat_replacer.pdf |
| W5 | sweetners.pdf |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://agrimoon.com/wp-content/uploads/Food-Chemistry.pdf |
| E2 | |
| E3 | |
| E4 | |

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|---------------|---|------------------------|-----------------------------|---|
| 1. | Permissible level of food additives in various food items | Assignment | 2 | HB |
| 2. | Toxicity Data of food Additives | Assignment | 1 | HT |
| | | | | |
| | | | | |
| | | | | |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|--------------|---------------|-------------------------|----------------------|---------------------------------------|-----------------------------------|
| 1 | I | Lecture | Video | Synthetic Sweeteners Manufacturing | 1 |
| 2 | 2 | Lecture | Video | Artificial Flavour Making in Industry | 1 |
| 3 | | | | | |
| 4 | | | | | |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|----------------|-----------------------|--|---|
| 1. | SLIP / CLASS TEST | Unit 1 | 20% |
| 2. | I INTERNAL | UNIT - I, II, III | 50% |
| 3. | II INTERNAL | UNIT - III, IV, V | 50% |
| 4. | Summative Examination | ALL FIVE UNITS | 100% |
| | | | |

| Designation | Prepared by | | |
|---------------------------------------|-----------------------------|------------------|-------------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / In-charge | Mrs.M. Venkata Subbulakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

| Approved by | | | |
|-----------------------|---------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R. Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE
COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Science and Processing Management

Programme Code : FM1011

Title of the Course: Food Safety and Hygiene

Course Code : 19BF305

Year / Semester: II/ III

Total No. of Students : 14

No of Credits: 2

Total No. of Contact Hours : 30 hrs

Course Teacher Name: Mrs.M.Venkata Subbulakshmi & Ms.A.Sona

Corresponding lab Paper : No

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|--|-------------------------------|----------------|---------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Introduction to Food Safety – Definition, Types Of Hazards | E2(3 1-9) | BB | 2 | | | 6 |
| 2. | Physical, Chemical and Biological Hazards | | BB | 2 | | | |
| 3. | Factors Affecting Food Safety. Importance of Safe Food. | | BB | 2 | | | |
| 4. | Revision / Test / Quiz | | BB | | 2 | | |
| UNIT – II | | | | | | | |
| 5. | Food Hazards of Physical ,Introduction, Physical Hazards with common example & Control Measure | E2(40-45) | BB | 3 | | | 6 |
| 6. | Chemical Origin, Chemical Hazards (Naturally Occurring), & Control Measure | | BB | 2 | | | |
| 7. | Environmental and Intentionally Added Packaging Material as a | | BB | 3 | | | |

| | | | | | | | |
|-------------------|--|-------------|------|---|---|--|---|
| | Threat, Impact On Health | | | | | | |
| 8. | Revision / Test / Quiz | | BB | | 2 | | |
| UNIT – III | | | | | | | |
| 9. | Food Hazards of Biological Origin - Introduction, | E1(180-221) | BB | 2 | | | 6 |
| 10. | Indicator Organisms, Food Borne Pathogens Bacteria, Virus And Eukaryotes, | | BB | 2 | | | |
| 11. | Seafood And Shell Fish Poisoning, Mycotoxins. | | BB | 2 | | | |
| 12. | Management of Hazard: Need , Control Parameters, Temperature Control, Food Storage | | BB | 2 | | | |
| 13. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – IV | | | | | | | |
| 14. | Hygiene and Sanitation in Food Lab And Industries: Introduction | W | BB | 2 | | | 6 |
| 15. | Source of Contamination | W | BB | 2 | | | |
| 16. | Control Methods using Physical and Chemical Agent | W | BB | 3 | | | |
| 17. | Waste Disposal, Personal Hygiene | W | BB/V | 3 | | | |
| 18. | Pest and Rodent Control, | W | | | 2 | | |
| 19. | Revision / Test / Quiz | W | | | | | |
| UNIT – V | | | | | | | |
| 20. | Role of Quality Control. External Quality Control Activities | W | BB | 2 | | | 6 |
| 21. | Inspection – Preshipment Inspection and Inspection at the Port of Destination | W | BB | 2 | | | |
| 22. | Certification and Quality Marks | W | BB/V | 2 | | | |
| 23. | Food Regulatory Agencies- List out the National & International Standard Bodies | W | BB | 2 | | | |

| | | | | | | |
|--------------------|------------------------|---|--|--|---|--|
| 24. | Revision / Test / Quiz | W | | | 2 | |
| TOTAL HOURS | | | | | | |

Text Book

| | |
|----|---|
| T1 | Bhatia.Rand Ichhpujan ,R.L Quality Assurance in Microbiology CBS publishers and Distributors ,New Delhi 2004. |
|----|---|

Reference Books

| | |
|----|--|
| R1 | Philip.A.C (2001). Reconceptualizing Quality. New Age international Pulishers, Banglore. |
| R2 | Kher,c.p(2000) Quality Control for the foodIndustry.ITC Publishers, Geneva |
| R3 | |
| R4 | |
| | |

Web Resources

| | |
|----|--|
| W1 | biological hazard ORIGIN food born illness.pdf |
| W2 | contamination control method-and-Personal-Hygiene- Page No 42-47.pdf |
| W3 | quality inspection and regulation.pdf |
| W4 | Unit-15 Nat and inter national.pdf |
| W5 | national and international standards.pdf |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|--|
| E1 | Gopakumar, K. 2002. Textbook on Fish Processing Technology, Indian Council of Agricultural Research (ICAR), New Delhi. |
| E2 | Fo O D Safety An D Go O D H Ygien Ic Practices H An Dbo O K Fo R Gambian Yo Uth En Trepren Eurs |
| E3 | |
| E4 | |

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|---------------|------------------------------------|------------------------|-----------------------------|---|
| 1. | Food safety and its concerned laws | Assignment | 1 | HB |
| 2. | Allergens | Peer Teaching | 2 | HT |
| | | | | |
| | | | | |
| | | | | |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|--|----------------------------|
| 1 | I | Lecture | PPT | How to prevent food from contamination | 1 |
| 2 | II | | Audio- Visual | How to deduct the Physical contamination | 1 |
| 3 | | | | | |
| 4 | | | | | |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|--------------------------|---------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – 1 | 20% |
| 2. | I INTERNAL | Unit - I, II, III | 50% |
| 3. | II INTERNAL | Unit – III , IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|----------------------------|------------------|-------------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / In-charge | Mrs. P. Deepalakshmi | | |
| Programme Coordinator | Mrs.M.Venkata Subbulakshmi | | |

| Approved by | | | |
|-----------------------|---------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R. Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Science and Processing Management

Programme Code : FM1011

Title of the Course: Meal Planning and Balanced Diet

Course Code : 19BF308

Year / Semester : I / I

Total No. of Students 62

No of Credits : 2

Total No. of Contact Hours 30

Course Teacher Name: Mrs. P. Deepalakshmi

Corresponding lab Paper : No

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|---|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Definition and Functions of Food | T 1- 26 | BB | 1 | | | 6 |
| 2. | BMI, Food guide pyramid | | BB/V | 1 | | | |
| 3. | Objectives of cooking, Methods of cooking – Dry heat | | BB | 2 | | | |
| 4. | Moist heat and Combination methods of cooking | | BB/V | 1 | | | |
| 5. | Revision / Test / Quiz | | | | 1 | | |
| UNIT – II | | | | | | | |
| 6. | Food groups - basic five | R 3 | BB | 1 | | | 6 |
| 7. | Composition for different food products - Cereals, Pulses | R 27, 71 | BB | 1 | | | |
| 8. | Nuts and oilseeds, Milk, Egg | R 88,105,131 | BB | 2 | | | |

| | | | | | | | |
|--------------------|---|-----------|------|---|---|--|-----------|
| 9. | Meat Fish, Poultry, Vegetables and Fruits | R 155,180 | BB | 1 | | | |
| 10. | Revision / Test / Quiz | | | | 1 | | |
| UNIT – III | | | | | | | |
| 11. | Meal panning – Definition & Introduction | R1-23 | BB | 1 | | | 6 |
| 12. | Principles of meal planning | | BB/V | 1 | | | |
| 13. | Factors affecting meal planning | | BB | 1 | | | |
| 14. | Meal planning for individuals | | | 2 | | | |
| 15. | Revision / Test / Quiz | | | | 1 | | |
| UNIT – IV | | | | | | | |
| 16. | Definition of Nutrition, Nutrients, Balanced diet | T 1-9 | BB | 1 | | | 6 |
| 17. | Health & Nutritional status | | BB | 2 | | | |
| 18. | Malnutrition and Undernutrition | | BB | 1 | | | |
| 19. | RDA – Reference Man and Women | T 17 | BB | 1 | | | |
| 20. | Revision / Test / Quiz | | | | 1 | | |
| UNIT – V | | | | | | | |
| 21. | Functions and sources of Carbohydrates, Protein and Fats | T 21-79 | BB | 1 | | | 6 |
| 22. | Vitamins - Classification – Water soluble (Thiamine, Riboflavin, B12) | T 294-316 | BB | 1 | | | |
| 23. | Fat soluble (A, D, E & K) - Sources, Functions | T 244-293 | BB/ | 1 | | | |
| 24. | Minerals - Sources, Function of calcium | T 165 | BB | 1 | | | |
| 25. | Sources and Functions of Iron & Iodine | T 190 | BB | 1 | | | |
| 26. | Revision / Test / Quiz | T 214 | | | 1 | | |
| TOTAL HOURS | | | | | | | 30 |

Text Book

| | |
|----|--|
| T1 | Srilakshmi, B. Nutrition Science, New Age International (P) Ltd, Publishers, 2006. |
|----|--|

Reference Books

| | |
|----|---|
| R1 | Srilakshmi, B. Food Science, New Age International (P) Ltd, Publishers, 2006. |
| R2 | Srilakshmi, B. Dietetics, New Age International (P) Ltd, Publishers, 2006. |

Web Resources

| | |
|----|--|
| W1 | https://www.researchgate.net/publication/313265513 Meal planning is associated with food variety diet quality and body weight s tatus |
| W2 | |
| W3 | |
| W4 | |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=444 |
| E2 | |
| E3 | |

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|------------------------|-----------------|----------------------|--|
| 1. | Sample - Menu Planning | Assignment | 1 | HB |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|------------------|----------------------------|
| 1 | I | Lecture | PPT | Therapeutic Diet | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|--------------------------|---|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – 1-5 | 20% |
| 2. | I INTERNAL | Unit - I, II, III (upto Principles of Meal Planning) | 50% |
| 3. | II INTERNAL | Unit – III (from Factors affecting Meal Planning) , IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|--------------------|------------------|-------------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / In-charge | Mrs.P.Deepalakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

| Approved by | | | |
|-----------------------|---------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R. Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

Name of the Programme : B.Com B&I

Programme Code : CO1004

Title of the Course : NME -Banking Practice

Course Code : 19CO307

Year / Semester : II

No of Credits : 2

Total No. of Contact Hours : 30

Course Teacher (s) Name :Mr. R. Dhamotharan

Corresponding lab Paper : No

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-----------------|---|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Introduction to Banking - Bank – Meaning and Definition | NA | PPT | 1 | | | 1 |
| 2. | Primary Functions - Secondary Functions, | NA | PPT | 2 | | | 3 |
| 3. | Exercise 1 - Filling a Loan Application Form (Deposit) | NA | PPT | 1 | | | 4 |
| 4. | Exercise 2 - Filling a Loan Application Form | NA | PPT | 1 | | | 5 |

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

| UNIT – II | | | | | | | |
|-------------------|---|----|-----|---|--|--|----|
| 5. | Banking Products - Deposit Products - SB-CA- FD- RD | NA | GD | 2 | | | 7 |
| 6. | Loan Products - HL-AL-EL-AJL | NA | PPT | 2 | | | 9 |
| 7. | Exercise 3 - Help Desk | NA | PPT | 1 | | | 10 |
| 8. | Exercise 4 - Single Window Operation | NA | PPT | 1 | | | 11 |
| UNIT – III | | | | | | | |
| 9. | Vouchers - Meaning and Importance of Vouchers | NA | PPT | 2 | | | 13 |
| 10. | Various Type of Vouchers | NA | V | 2 | | | 15 |
| 11. | Exercise 5 Filling a Withdrawal Slip - Exercise 6 - Filling a Pay-in-slip | NA | PPT | 1 | | | 16 |

| | | | | | | | |
|------------------|--|----|-----|---|--|--|----|
| 12. | Exercise 7 -Drawing a Cheque | NA | WS | 1 | | | 17 |
| UNIT – IV | | | | | | | |
| 13. | Credit Appraisal Techniques | NA | PPT | 2 | | | 19 |
| 14. | Loan Appraisal - Debt Collection | NA | PPT | 2 | | | 21 |
| 15. | Exercise 8 - Credit Appraisal Techniques | NA | V | 1 | | | 22 |
| 16. | Exercise 9 - Recovery of loans | NA | WS | 1 | | | 23 |
| UNIT – V | | | | | | | |
| 17. | E- Banking services | NA | GD | 2 | | | 25 |
| 18. | ATMs (Automated Teller Machines) | NA | PPT | 1 | | | 26 |
| 19. | Smart Cards - EFT | NA | V | 1 | | | 27 |

| | | | | | | | |
|--------------------|------------------------------------|----|-----|---|--|--|-----------|
| 20. | Mobile Banking - Internet Banking | NA | PPT | 1 | | | 28 |
| 21. | How to operate E-banking services. | NA | V | 2 | | | 30 |
| TOTAL HOURS | | | | | | | 30 |

Text Book

| | |
|----|---|
| T1 | Study material provided by Course faculty |
|----|---|

Reference Books

| | |
|----|--|
| R1 | E.Gordon and K.Natarajan, Banking Theory, Law & Practice, Himalaya Publishing House, Mumbai, 2014. |
| R2 | Sundharam K.P.M and Varshney P.N., Banking Theory, Law & Practice, Sultan Chand and Sons, New Delhi, 2014. |

Web Resources

| | |
|----|---|
| W1 | https://www.freebookcentre.net/Business/Banks-and-Banking-Books.html |
|----|---|

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://www.freebookcentre.net/Business/Banks-and-Banking-Books.html |
|----|---|

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|---------------|---|------------------------|-----------------------------|---|
| 1. | Primary Functions - Secondary Functions | Assignment | 1 | HB |
| 2. | E- Banking services | Seminar | 1 | HB |
| 3. | Credit Appraisal Techniques | Peer teaching | 1 | HB |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| SL.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|--------------|---------------|-------------------------|----------------------|-------------------------------------|-----------------------------------|
| 1 | I | Lecture | PPT | Merchant Banking | 1 |
| 2 | II | Lecture | PPT | Role & Function of RBI | 1 |
| 3 | V | Lecture | Video | Financial Institutions and Services | 1 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|----------|--------------------------|--|------------------------------------|
| 1 | SLIP / CLASS TEST | Unit - 1 | 20% |
| 2 | I INTERNAL | Unit - I, II, III (upto Importance of Vouchers) | 50% |
| 3 | II INTERNAL | Unit – III (from various types of Vouchers) , IV, V | 50% |
| 4 | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|--------------------------------|------------------|-----------|------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | Mr.R.Dhamotharan | | |
| Programme Coordinator | Mrs.V.Padmavathy | | |

Approved by

| | Name | Signature | Date |
|-----------------------|-------------------------|------------------|-------------|
| HoD | Mrs.V.Padmavathy | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | DR.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Science and Processing Management

Programme Code : FM1011

Title of the Course: Food Design

Course Code : 18BF501

Year / Semester : III / V

Total No. of Students : 12

No of Credits : 5

Total No. of Contact Hours : 75

Course Teacher Name: Mrs. P. Deepalakshmi

Corresponding lab Paper : Yes

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|---|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Introduction, Objectives of product development | R1 -13 | BB | 3 | | | 15 |
| 2. | What is a new product, Reasons why products fail in the market? | | BB/V | 4 | | | |
| 3. | Stages of food product development –Idea generation, Screening and Evaluation | | BB | 3 | | | |
| 4. | Business analysis, Development, Market testing and Commercialisation | | BB | 3 | | | |
| 5. | Revision / Test / Quiz | | BB | | 2 | | |
| UNIT – II | | | | | | | |

| | | | | | | | |
|--------------------|---|------------|------|---|---|--|-----------|
| 6. | Development of the food product | T 95-144 | BB/V | 3 | | | 15 |
| 7. | Assessment of food products | | BB | 3 | | | |
| 8. | Ingredient selection and formulation, Pilot production | | BB | 3 | | | |
| 9. | Packaging and nutritional labelling designs | | BB/V | 2 | | | |
| 10. | Product pricing, Pilot survey | | BB | 2 | | | |
| 11. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – III | | | | | | | |
| 12. | Market testing and Commercialization | R 3-13 | BB | 2 | | | 15 |
| 13. | Introduction to Product management/ Product life cycle | | BB | 3 | | | |
| 14. | Growth, maturity and decline stages | | BB/V | 2 | | | |
| 15. | Classifying products: -Consumer goods-Convenience, Shopping, Speciality, Unsought goods | R 17-29 | BB | 3 | | | |
| 16. | Industrial goods-production, and support goods | | BB/V | 3 | | | |
| 17. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – IV | | | | | | | |
| 18. | Food product planning-Modifying the product | R 164- 195 | BB | 3 | | | 14 |
| 19. | Modifying the market, Repositioning the product | | BB | 3 | | | |
| 20. | Branding, Licensing and Acquisition, | | BB | 3 | | | |
| 21. | Franchising, Product Warranty | | BB | 3 | | | |
| 22. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – V | | | | | | | |
| 23. | Feasibility study, Plant layout | R 3-55 | BB/V | 3 | | | 12 |
| 24. | Processing Equipment Selection | | BB/V | 3 | | | |
| 25. | Equipment Selection and Installation | | BB/V | 3 | | | |
| 26. | Optimization of Production operations | | BB | 3 | | | |
| 27. | Revision / Test / Quiz | | BB | | 2 | | |
| TOTAL HOURS | | | | | | | 73 |

Text Book

| | |
|----|---|
| T1 | Earle, M., Earle, R., and Anderson, A. 2001. Food Product Development. CRC Press. |
|----|---|

Reference Books

| | |
|----|---|
| R1 | Grap, E., Saguy, and Graf, E. 1991. Food Product Development: From Concept to the Marketplace. Kluwer Academic Publishers |
|----|---|

Web Resources

| | |
|----|---|
| W1 | https://www.economicdiscussion.net/marketing-2/classification-of-products/31799 |
| W2 | http://academic.brooklyn.cuny.edu/economic/friedman/mmproductpolicy.html |
| W3 | https://www.wipo.int/export/sites/www/classifications/nice/en/pdf/8_list_class_order.pdf |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | http://www.scribd.com/doc/3763678/Product - planning |
| E2 | https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=15 |
| E3 | https://onlinelibrary.wiley.com/doi/pdf/10.1002/9780470376898.fmatter |

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---|-----------------|----------------------|--|
| 1. | Characteristics of Marketing Strategies | Assignment | 1 | HB |
| 2. | Food Product Development | Peer Teaching | 2 | HT |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|--------------|---------------|-------------------------|----------------------|-------------------------------------|-----------------------------------|
| 1 | I | Lecture | Audio Visual | Labelling designs for food products | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|----------------|--------------------------|---|---|
| 1. | SLIP / CLASS TEST | Unit – 1- 5 | 20% |
| 2. | I INTERNAL | Unit - I, II, III (upto Decline stages) | 50% |
| 3. | II INTERNAL | Unit – III (from Classifying Products), IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|---------------------|-----------|------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / In-charge | Mrs.P. Deepalakshmi | | |
| Programme Coordinator | Mrs.P. Deepalakshmi | | |

| Approved by | | | |
|-----------------------|---------------|-----------|------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R. Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Science and Processing Management

Programme Code : FM1011

Title of the Course: Food Entrepreneurship

Course Code : 18BF502

Year / Semester : III/V

Total No. of Students : 12

No of Credits : 5

Total No. of Contact Hours : 75

Course Teacher Name: Mrs. M. Venkata Subbulakshmi

Corresponding lab Paper: No

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|---|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Introduction and Who is an entrepreneur/Soft skill for entrepreneurs | W6 | BB | 3 | | | 15 |
| 2. | profile of the food processing sector in India | W6 | BB/V | 2 | | | |
| 3. | Planning a small scale Industry-whom to approach for what business opportunity identification | W6 | BB | 3 | | | |
| 4. | Agribusiness management challenge | W6 | BB/V | 2 | | | |
| 5. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – II | | | | | | | |
| 6. | The scope and size of the agri-food system; Changing perception of food; Evolution and future of the Agri-Food System | T1 (152-154) | BB | 3 | | | 15 |
| 7. | The Future of the Agri-Food System: The Input Sector, Production Sector | | BB | 3 | | | |

| | | | | | | | |
|--------------------|---|--------------|------------|---|---|--|-----------|
| 8. | Shifting roles of exports and imports | W1 | BB | 3 | | | |
| 9. | Agriculture and the environment; Commodity processing and food manufacturing sector | W1 | BB | 4 | | | |
| 10. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – III | | | | | | | |
| 11. | Environmental analysis | W2 | BB | 4 | | | 15 |
| 12. | project selection & project appraisal | W2 | BB/V | 3 | | | |
| 13. | modification/ finalization of project & collaborations | W3 | BB | 3 | | | |
| 14. | preparations for launching & trial run and test marketing | W3 | | 4 | | | |
| 15. | Revision / Test / Quiz | W3 | | | 1 | | |
| UNIT – IV | | | | | | | |
| 16. | The Role of Marketing | T1 (168-184) | BB | 3 | | | 12 |
| 17. | Marketing of Agricultural input and Marketing of Agricultural product. | | BB | 3 | | | |
| 18. | Market research for agribusiness | | BB | 2 | | | |
| 19. | Retail and supply chain management | | BB | 2 | | | |
| 20. | Revision / Test / Quiz | | | | 2 | | |
| UNIT – V | | | | | | | |
| 21. | Commodity trading and forecasting for agribusiness | W4 | BB | 2 | | | 12 |
| 22. | Retail and supply chain management. | T1(172-174) | BB | 2 | | | |
| 23. | Management of cooperation. Agribusiness projects and enterprise. | T1(203-238) | BB/ Bpt | 2 | | | |
| 24. | Management of agribusiness trade in WTO environment. | | BB | 3 | | | |
| 25. | Agricultural and food policy. Rural environment and institution | | BB | 3 | | | |
| 26. | Revision / Test / Quiz | | | | 1 | | |
| TOTAL HOURS | | | | | | | 69 |

Text Book

| | |
|----|--|
| T1 | Principles of Agribusiness Management by James G.Beierlein, Kenneth C.Schneeberger and Donald D. Osburn. |
|----|--|

Reference Books

| | |
|----|---|
| R1 | Marketing Management by Philip Kotler, Pearson Education Publishers. |
| R2 | Marketing Management by Dr. P. K. Srivastava, Sterling Pub. Pvt. Ltd. 1991. |
| R3 | Marketing Management by Dr. S. C. Jain, IBP(International Business Press) |

Web Resources

| | |
|----|---|
| W1 | (PDF) Impact of agricultural practices on environment (researchgate.net) |
| W2 | Project external environmental factors affecting project delivery systems selection Journal of Civil Engineering and Management (vgtu.lt) |
| W3 | guide-to-rapid-market-appraisal-for-agricultural-products.pdf |
| W4 | rural development.pdf |
| W5 | Starbucks08JIBEDVol3No.3withKogetsidesH.pdf |
| W6 | http://www.ddegjust.ac.in/studymaterial/mba/cp-401.pdf |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://www.kobo.com/us/en/ebook/agriculture-marketing |
|----|---|

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|-------------------------|-----------------|----------------------|--|
| 1. | Marketing Functionaries | Assignment | 2 | HB |
| 2 | Marketing Survey | Seminar | 2 | HB |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| SL.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|----------------|----------------------------|
| 1 | I | Lecture | PPT | Market Survey | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|-----------------------|---------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit 1 | 20% |
| 2. | I INTERNAL | UNIT - I, II, III | 50% |
| 3. | II INTERNAL | UNIT - III, IV, V | 50% |
| 4. | Summative Examination | ALL FIVE UNITS | 100% |

| Designation | Prepared by | | |
|---------------------------------------|------------------------------|-----------|------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / In-charge | Mrs. M. Venkata Subbulakshmi | | |
| Programme Coordinator | Mrs P.Deepalakshmi | | |

| Approved by | | | |
|-----------------------|---------------|-----------|------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R. Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme : B.Sc Food Science and Processing Management Programme Code : FM1011

Title of the Course : Food Regulation and Plant Management Course Code : 18BF503

Year / Semester : III/V Total No. of Students : 12

No of Credits : 4 Total No. of Contact Hours : 60

Course Teacher (s) Name : Ms.A.Sona Corresponding lab Paper : No

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-----------------|---|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Quality Control – Introduction | T1 - 10 | BB | 1 | | | 10 |
| 2. | Production planning and Network analysis – Introduction | W4 | BB | 1 | | | |
| 3. | Evaluation of food quality | W3 | BB | 1 | | | |
| 4. | Concept of total quality control (TQM) | T1 - 19 | BB | 2 | | | |
| 5. | Objectives of production planning | W4 | BB | 1 | | | |
| 6. | Procedure of production control | W4 | BB | 1 | | | |
| 7. | Project planning network / PERT | W4 | BB | 1 | | | |

| | | | | | | | |
|-------------------|---|----|----|---|---|--|----|
| 8. | CPM network | W4 | BB | 1 | | | |
| 9. | Revision | | | | 1 | | |
| UNIT – II | | | | | | | |
| 10. | Requirement of good manufacturing process (GMP) | W1 | BB | 1 | | | 11 |
| 11. | Good hygienic process (GHP) | W1 | BB | 1 | | | |
| 12. | Codex alimentarius commission, AGMARK | W1 | BB | 1 | | | |
| 13. | FPO | W1 | BB | 1 | | | |
| 14. | PFA | W1 | BB | 1 | | | |
| 15. | BIS, consumer protection act | W1 | BB | 1 | | | |
| 16. | Vanaspati control order | W1 | BB | 1 | | | |
| 17. | MMPO | W1 | BB | 1 | | | |
| 18. | Export quality control and inspection act | W1 | BB | 1 | | | |
| 19. | Food safety and standards act of India, | W1 | BB | 1 | | | |
| 20. | Revision | | | | 1 | | |
| UNIT – III | | | | | | | |
| 21. | Use of hazard analysis critical control Point | W1 | BB | 1 | | | 10 |
| 22. | HACCP implication in food industries | W1 | BB | 1 | | | |
| 23. | ISO–9000 series | W1 | BB | 2 | | | |
| 24. | ISO 22000:2005 Series | W1 | BB | 2 | | | |
| 25. | ISO 19011 | W1 | BB | 1 | | | |

| | | | | | | | |
|--------------------|---|----|----|---|---|--|-----------|
| 26. | Bioterrorism and food safety | E1 | BB | 2 | | | |
| 27. | Revision | | | | 1 | | |
| UNIT – IV | | | | | | | |
| 28. | Types of organization structure | W2 | BB | 1 | | | 11 |
| 29. | Principles of development of organization structure | W2 | BB | 2 | | | |
| 30. | Forms of business organization | W2 | BB | 2 | | | |
| 31. | Division of industries | W2 | BB | 1 | | | |
| 32. | Industrial sectors (private and public) | W2 | BB | 2 | | | |
| 33. | Problems associated to public sector industries | E2 | BB | 1 | | | |
| 34. | Social obligations of industries towards society | W3 | BB | 1 | | | |
| 35. | Revision | | | | 1 | | |
| UNIT – V | | | | | | | |
| 36. | Industrial disputes act –1947 | W1 | BB | 2 | | | 12 |
| 37. | WTO | E3 | BB | 2 | | | |
| 38. | GATT | E3 | BB | 2 | | | |
| 39. | Patent Laws | W1 | BB | 2 | | | |
| 40. | IPR | W1 | BB | 3 | | | |
| 41. | Revision | | | | 1 | | |
| Total Hours | | | | | | | 54 |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS

| Sl.NO | Module | Lecture | Planned Topics | Total No of Hours Allotted |
|-------|--------|----------|---------------------|----------------------------|
| 1 | 1 | Lecture1 | Principles of HACCP | 2 |

Gaps in the Syllabus –To meet Industrial Requirements

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|-------------------|-----------------|----------------------|--|
| 1. | ISO 9000 series | Assignment | 1 | HT |
| 2. | Unit – 2 | Seminar | 3 | HT |

Text Books

| | |
|----|---|
| T1 | J.Andres Vasconcellos (2005) “Quality Assurance for the Food Industry” CRC press, New York Washington, D.C. |
|----|---|

Web Resources

| | |
|----|---|
| W1 | http://www.ignouhelp.in/ignou-mscdfsm-study-material/ |
| W2 | https://epgp.inflibnet.ac.in/ |

| | |
|----|---|
| W3 | http://cbseacademic.nic.in/web_material/Curriculum21/publication/srsec/UNIT7_BA_XII.pdf |
| W4 | http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S000023MA/P001403/M016054/ET/1465205522Module-36Entre.pdf |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|--|
| E1 | Dina Solodoukhina (2011) “Food Safety and Bioterrorism from Public Health Perspective” |
| E2 | Taranjeet Singh (2016) “Public Sector and its Problems in India” |
| E3 | K.B Vedamurthy “Agribusiness Management and Trade” Agrimoon.com |

Topics beyond Syllabus

| | |
|----------|---|
| Module 1 | http://www.ignouhelp.in/ignou-mscdfsm-study-material/ |
|----------|---|

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be | Proportion (Portion) in Percentage (to |
|---------|------|-------------------------|--|
|---------|------|-------------------------|--|

| | | Covered | be decided by the Department) |
|---|--------------------------|-------------------|--------------------------------------|
| 1 | SLIP / CLASS TEST | ALL FIVE UNITS | 20% |
| 2 | I INTERNAL | UNIT - I, II, III | 50% |
| 3 | II INTERNAL | UNIT - III, IV, V | 50% |
| 4 | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|-----------------------|------------------|-------------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | Ms.A.Sona | | |
| Programme Coordinator | Mrs. P. Deepa Lakshmi | | |

| Approved by | | | |
|---------------------------|--------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme: Food Science and processing Management

Course Code : 18BF504

Title of the Course: Food Design Practical

Year / Semester : III / V

No of Credits : 2 Credits

Total No. of Students: 14

Course Teacher Name: Mrs.M. Venkata Subbulakshmi

Total No. of Contact Hours: 60

| Sl. No. | Week No. | Name of the Experiment | Page No in the Lab Manual | No. of Hours | Cumulative Hours |
|----------------|-----------------|---|----------------------------------|---------------------|-------------------------|
| 1 | 1 | Market and literature survey to identify the concepts of new products based on special dietary requirements, functionality, convenience and improvisation of existing traditional Indian foods. | 1-9 | 6 + 4 | 10 |
| 2 | 2 | Screening of product concept on the basis of techno-economic feasibility. | 9-12 | 4+ 3 | 7 |
| 3 | 3 | Development of prototype product and Standardization of formulation process. | 12-16 | 4 + 4 | 8 |
| 4 | 4 | Proximate Analysis of New Product | 16-24 | 4 + 4 | 8 |
| 5 | 5 | Packaging, labeling and shelf-life studies | 24-29 | 6 + 2 | 8 |
| 6 | 6 | Marketing of the developed product | 30-37 | 6 + 2 | 8 |

| | | | | | |
|---|---|--|---------------------|-------|-----------|
| 7 | 7 | Cost analysis and Final Project Report | 37-40 | 6 + 2 | 8 |
| | | | Total No. of. Hours | | 60 |

Gap in the Syllabus

| SL. NO | Name of the Topic | No of Hours Allotted |
|--------|--------------------------------|----------------------|
| 1. | Nutrient Quantitative Analysis | 2 |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS

| SL.NO | Topic | Total No of Hours Allotted |
|-------|------------------------------|----------------------------|
| 1 | New Products Idea Generation | 1 |

| Designation | Prepared by | | |
|--------------------------------------|-----------------------------|-----------|------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / Incharge | Mrs. M.Venkata Subbulakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

| Approved by | | | |
|-----------------------|---------------|-----------|------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr. R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD SEMESTER)

Name of the Programme : B.Sc (Animation, Viscom, FIS, FS&PM, MCHM, CS, Networking), BBA, B.Com (B&I, Hons, ACCA)

Title of the Course : CRT English III Practical **Course Code: 18CRT509**

Year / Semester: III YEAR / V SEMESTER **Section:** **Total No. of Students: 12**

No.Of Credits: 3 **Total no. of Contact hours: 30**

Course Teacher (s) Name : Mrs.R.Suganthi Hepzibha, Ms.T.S.Sridevi, Mr.C.Senthilkumar and Mr.V.V.Sundaram

| S. No | Topic | Reference / text Book Page No. | Teaching Aids | Mode of Delivery No. of Hours | | |
|----------------|--|--------------------------------|---------------|-------------------------------|---|---|
| | | | | L | T | P |
| Unit I | | | | | | |
| 1 | Self Introduction | WL | BB | 3 | | |
| 2 | Acquiring Confidence in Speaking English | WL | BB/PPT/V | 3 | | |
| Unit II | | | | | | |
| 1 | Life Skills – Leadership, Time Management, Team Building and Social Skills | R3-49 | BB | 3 | | |

| | | | | | | |
|---|---|---------------|-----------|---|---|--|
| 2 | Resume Writing | R2-113 | BB | 3 | | |
| Unit III | | | | | | |
| 1 | Basics of Personal Interview | WL | BB | 2 | 1 | |
| 2 | Mock Interview | NA | BB | 2 | 1 | |
| Unit IV | | | | | | |
| 1 | Basics of Group Discussion | WL | BB | 2 | 1 | |
| 2 | Mock Group Discussion | NA | BB | 2 | 1 | |
| Unit V | | | | | | |
| 1 | Placement Training – Vocabulary, Sentence Correction, Essay Writing | WL | BB | 2 | 1 | |
| 2 | Communication Practice for Placements | NA | BB | 2 | 1 | |
| | | | | | | |
| Reference Books | | | | | | |
| R1 | Sanjay Kumar, Pushp Lata. Communication Skills. New Delhi: Oxford University Press, 1999. Print. | | | | | |
| R2 | Srivasan Hema. Communication Skills . Bangalore: Frank Brothers & Co. Ltd, 2004. Print. | | | | | |
| R3 | Dr.P.Prasad. The Functional Aspects of Communication Skills . Bangalore: S.K.Kataria and Sons Ltd, 2005. Print. | | | | | |
| E – Books /Library INFLIBNET RESOURCES | | | | | | |
| E1 | https://nlist.inflibnet.ac.in/search/Record/EBC483375 | | | | | |
| E2 | https://nlist.inflibnet.ac.in/search/Record/EBC481114 | | | | | |
| E3 | https://nlist.inflibnet.ac.in/search/Record/EBC1864716 | | | | | |

| Gaps in the Syllabus | | | | | | |
|--|--------------------------|------------------------|-----------------------------|--|---|-----------------------------------|
| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / | Hours beyond the Time Table (HB) | |
| 1 | Extempore | Seminar | 3 | | | |
| 2 | On Any Modules | Peer teaching | | | | |
| 3 | NA | Industrial Visit | NA | NA | | |
| COURSE PLAN FOR CONTENT BEYOND SYLLABUS | | | | | | |
| SL.NO | Module | Lecture | Planned Topics | Date | Time | Total No of Hours Allotted |
| 1 | 1 | Lecture1 | Lecture 1 | Newspaper/Article reading | | |
| 2 | 2 | Lecture2 | Lecture 2 | Collecting & Reporting News | | |
| 3 | 3 | Lecture3 | Lecture 3 | Learning a New Word Everyday | | |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | | Proportion (Portion) in Percentage (to be decided by the Department) | | |
|---------------------------------|-------------------------|--|-------------------------|---|------------------|--|
| 1 | I INTERNAL | UNIT - I, II, V | | 50% | | |
| 2 | II INTERNAL | UNIT - III, IV, V | | 50% | | |
| 3 | Summative Examination | ALL 5 UNITS | | 100% | | |
| Prepared by | | | | | | |
| Designation | | | Name | | Signature | |
| Course Coordinator / In-charges | | | Mr.S.Sivakumar | | | |
| Module Coordinator | | | Mrs.R.Suganthi Hepzibha | | | |
| Approved by | | | | | | |
| | Name | Signature | Date | | | |
| HoD | Mrs.R.Suganthi Hepzibha | | | | | |
| Dean Academics | Dr.S.Priya | | | | | |
| Principal | Dr.R.Sujatha | | | | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE
DEPARTMENT OF FOOD SCIENCE AND PROCESSING MANAGEMENT
ACADEMIC YEAR 2020-2021 (Even)

PREAMBLE

| S. No. | Course Code | Course Name | Faculty In-Charge |
|--------|-------------|--|-----------------------------------|
| 1. | 20UT201 | Tamil II | Ms.Sailakshmi |
| 2. | 20UH101 | Hindi II | Mrs.Neela |
| 3. | 20UGE202 | English III | Ms.T.Sridevi |
| 4. | 20BF203 | Fundamentals of Food Processing and Preservation | Ms.Sona |
| 5. | 20BF206 | Fundamentals of Food Processing and Preservation Practical | Mrs.Deepalakshmi |
| 6. | 20BF204 | Food Microbiology | Mrs.Venkata Subbulakshmi |
| 7. | 20BF207 | Food Microbiology Practical | Mrs.Venkata Subbulakshmi |
| 8. | 20BF205 | Principles of Financial Operations | Mrs. Padmavathy |
| 9. | 20BF208 | Computer Applications Practical | Mr.Rajkumar |
| 10. | 20ES210 | Environmental Studies | Mrs.Venkata Subbulakshmi |
| 11. | 19UT401 | Tamil IV | Ms.Sailakshmi |
| 12. | 19UGE402 | English | Mr.Senthil Kumar / Ms. T. Sridevi |
| 13. | 19BF403 | Dairy, Meat and Poultry Processing | Mrs.Deepalakshmi |
| 14. | 19BF404 | Fish and Seafood Processing | Mrs.Venkata Subbulakshmi |
| 15. | 19BF405 | Basic and Therapeutic Nutrition | Ms.Sona |
| 16. | 19BF407 | Basic and Therapeutic Nutrition Practical | Mrs.Deepalakshmi |
| 17. | 19BF406 | Food Packaging | Mrs.Deepalakshmi |
| 18. | 19BF410 | Food Preservation | Mrs.Deepalakshmi |

| | | | |
|-----|---------|----------------------------|--------------------------|
| 19. | 19CO405 | Consumer Affairs-NME | Mr.Kodiarasu |
| 20. | 19BF408 | Evaluation of Food Quality | Ms.Sona |
| 21. | 19BF409 | Food Ethics | Mrs.Venkata Subbulakshmi |

A. Sanyal
HOD

S. P. Sanyal
Dean

B. Sanyal
PRINCIPAL

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE
COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

| | | | |
|-----------------------------|---|--------------------------------|------------|
| 1. Name of the Programme : | 2. ANI/VIS/CS/Net/MCHM/FSPM/B.Com B&I/HONS&ACCA/BBA | | |
| 3. Course Name : | 4. General Tamil II | 5. Course Code : | 6. 20UT201 |
| 7. Year / Semester | 8. I/II | 9. Section | 10. |
| 11. Total No. of Students | 12. 51 | 13. No. of Credits | 14. 3 |
| 15. Corresponding lab Paper | 16. Yes / No. | 17. Total No. of Contact Hours | 18. 3 |
| 19. Course Teacher Name | 20. | | |

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|--|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1 | திருஞானசம்பந்தர்- (திருஆலவாய் | CM/2 | BB | 2 | | | 2 |
| 2 | திருநாவுக்கரசர் - (நமச்சிவாய திருப்பதிகம்) | CM/3 | BB | 2 | | | 2 |
| 3 | சுந்தரர் – (திருப்பூவணம் திருத்தலம்) | CM/4 | BB | 2 | | | 2 |
| 4 | ஹெ.ஆ.கிருஷ்ணப்பிள்ளை(இரட்சணிய மனோகரம்) | CM/5 | BB | 3 | | | 3 |
| UNIT – II | | | | | | | |
| 5 | பொய்கையாழ்வார் - (முதல் திருவந்தாதி) | CM/6 | BB | 2 | | | 2 |

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery | | | Cumulative Hours |
|--------------------|---|-------------------------------|----------------|------------------|--|--|------------------|
| 6 | நம்மாழ்வார்- (திருவாய்மொழியில்) | CM/7 | BB | 2 | | | 2 |
| 7 | ஆண்டாள் -(திருப்பாவை) | CM/8 | BB | 2 | | | 2 |
| 8 | குணங்குடி மஸ்தான் சாகிபு (பராபரக்கண்ணி) | CM/9 | BB | 3 | | | 3 |
| UNIT – III | | | | | | | |
| 9 | பலவீனத்தை பந்தாடுவோம் - வெ.இறையன்பு | CM/10 | BB | 2 | | | 2 |
| 10 | தமிழ்நாட்டு காளை விளையாட்டும் மேல்நாட்டு காளைப்போரும்-முனைவர் ஆ.முத்தையா- | CM/15 | BB | 2 | | | 2 |
| 11 | இன்றியமையா இதழியல் கலை - முனைவர்.மா.பா.குருசாமி | CM/24 | BB | 2 | | | 2 |
| 12 | தமிழில் அறிவியல் -மணவை. முஸ்தபா - | CM/28 | BB | 2 | | | 2 |
| 13 | கறுப்பு- முனைவர் தொ. பரமசிவன் | CM/34 | BB | 1 | | | 1 |
| UNIT – IV | | | | | | | |
| 14 | சொல்வகைகள் | CM/39 | BB | 3 | | | 3 |
| 15 | அணிஇலக்கணம் | CM/42 | BB | 3 | | | 3 |
| 16 | வினாவும் – விடையும், | CM/44 | BB | 3 | | | 3 |
| UNIT – V | | | | | | | |
| 17 | பக்தி இலக்கியத்தின் தோற்றமும் வளர்ச்சியும் | CM/48 | BB | 3 | | | 3 |
| 18 | உரைநடையின் தோற்றமும் வளர்ச்சியும் | CM/50 | BB | 3 | | | 3 |
| 19 | கட்டுரைப்பயிற்சி. | - | BB | 3 | | | 3 |
| TOTAL HOURS | | | | | | | 45 |

L – Lecture T – Tutorial (Problems / Example Programs / Revision Classes) P – Practical

* LCD / PPT / Black Board (BB) / Worksheet(WS) / Video (V) / Group Discussion (GD) / Blended & Flipped (BF) / Open Educational Resources (OER) media that are freely accessible, Google tools like Drive (GRV) , Google Docs (GDO), and Google Slides(GS) , Google Forms (GOF) and Whiteboards(WB),Wikipedia (W) any other tools may also be included. [Mark the abbreviation in the teaching aids column]

Course Material

21. பொதுத்தமிழ்II – பாடநூல் தொகுப்பு கல்லூரித் -தமிழ்த்துறை வெளியீடு

Reference Books

1. தேவாரம்.சைவசித்தாந்த நூற்பதிப்புக்கழக வெளியீடு, சும்பகோணம்: 1990. Print.
2. நாலாயிரதிவ்வியப்பிரபந்தம்.சைவசித்தாந்த நூற்பதிப்புக்கழக வெளியீடு,1992 .Print.
3. சங்க இலக்கியமும் உரைநடையும்.மதுரை காமராசர் வெளியீடு, சென்னை: 1982. Print.
4. இதழியல்கலை.முனைவர்.மா.பா.குருசாமி.தமிழ்ப்புத்தக்காலயம், சென்னை: 1975. Print.
5. பயன்பாட்டுத்தமிழ் இலக்கணம்.மணிவாசகர் பதிப்பகம், மதுரை: 1995.Print.
6. தண்டியலங்காரம்.சைவ சித்தாந்த நூற் பதிப்புக் கழக வெளியீடு,சென்னை: 1976.Print.
7. தமிழ் இலக்கிய வரலாறு-1 .மது.ச.விமலானந்தம். முல்லை நிலையம், சென்னை: 1976.Print.

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---------------------------|-----------------|----------------------|--|
| 1. | செய்தித்தாள்கள் வாசித்தல் | | 2 | (HB) |
| 2. | புத்தகம் வாசித்தல் | | 2 | (HB) |

* Proposed Actions can be Assignments, Seminars, Peer Teaching, Industrial Visit, Others (if any)
COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| SL.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|-------------------------------------|----------------------------|
| 1 | 1.1 | Assignment | 2 | கட்டுரை எழுதுதல் | 2 |
| 1 | 1.1.1 | Seminar | 2 | புத்தகம் வாசித்து விமர்சனம் செய்தல் | 2 |
| 2 | 2.1 | Peer teaching | 2 | நடைமுறை நிகழ்வுகளை கலந்தாலோசித்தல் | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|--------------------------|---------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – I | 20% |
| 2. | I INTERNAL | Unit – I, II, III (up to -----) | 40% |
| 3. | II INTERNAL | Unit – III (from -----) , IV, V | 40% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|--------------------------------|-----------------|-----------|------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | Mrs . N . SELVI | | |

| Approved by | | | |
|----------------|-----------------|-----------|------|
| | Name | Signature | Date |
| HoD | Mrs . N . SELVI | | |
| Dean Academics | Dr.S.PRIYA | | |
| Principal | Dr.R.SUJATHA | | |

SUBBALAKSHMI
LAKSHMIPATHY
COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

| | | | |
|------------------------------------|---|---------------------------------------|--------------------|
| 22. Name of the Programme : | 23. B.Sc Animation, Viscom, CS, Networking, Food Science & Processing, Fire & Industrial Safety and Marine Catering Hotel Management, B.Com B&I, Honors and ACCA | | |
| 25. Course Name : | 26. Hindi II | 27. Course Code : | 28. 20UH201 |
| 29. Year / Semester | 30. I / II | 31. Section | 32. |
| 33. Total No. of Students | 34. 1 | 35. No. of Credits | 36. 3 |
| 37. Corresponding lab Paper | 38. No | 39. Total No. of Contact Hours | 40. 45 |
| 41. Course Teacher Name | 42. Mrs.S.Neela | | |

| Sl. No. | TOPIC | Course Material Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-------------------------------|---|-------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I - गद्य(Prose) | | | | | | | |
| 1 | चालीस करोड़ कुरते कहाँ से.....- Chaleeskaroodkurthea khan say | CM-02 | BB / PPT | 2 | 1 | | 3 |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

| | | | |
|--------------------------------|---|-----------------------------------|----------------|
| Name of the Programme : | B.Sc Animation, Viscom, CS, Networking, Food Science & Processing, Fire & Industrial Safety and Marine Catering Hotel Management,B.Com B&I,Honors and ACCA | | |
| Course Name : | Hindi II | Course Code : | 20UH201 |
| Year / Semester | I / II | Section | |
| Total No. of Students | | No. of Credits | 3 |
| Corresponding lab Paper | No | Total No. of Contact Hours | 45 |
| Course Teacher Name | Mrs.S.Neela | | |

| Sl. No. | TOPIC | Course Material Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-------------------------------|--|-------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I - गगगग(Prose) | | | | | | | |
| 1 | गगगगग गगगगग गगगगग ग गगग गगग ...-Chaleskaroodkurthea khan say | CM-02 | BB / PPT | 2 | 1 | | 3 |
| 2 | गगगगगग गगगग गगगगगग गगग गगगग गगग – Dhakshin Bharath Hindi pracharsabha | CM-3 | BB / PPT | 2 | 1 | | 3 |
| 3 | गगगगग गगगगग – Hindi divas | CM-6 | BB / PPT | 2 | 1 | | 3 |
| 4 | गगगगगगग गगग गगगगगग गगग गगगग गगग गगगग गगग गगगग – Olympic Meinbharatheeya mahilaon ney jande | CM-4 | BB / PPT | 2 | 1 | | 3 |

| Sl. No. | TOPIC | Course Material Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|--|--|-------------------------|----------------|------------------------------|---|--|------------------|
| | gadhdiyea | | | | | | |
| UNIT – II - गणसगण गणसगण (Adhoonikkavitha) | | | | | | | |
| 5 | गणसगण - Seeko | CM-7 | BB / PPT | 1 | 1 | | 2 |
| 6 | गणसगण गणसगण गणसगण ?- badakounhai | CM-8 | BB / PPT | 1 | 1 | | 2 |
| 7 | गणसगण गणसगण गणसगण – pushpakeeabhilasha | CM-11 | BB / PPT | 1 | 1 | | 2 |
| 8 | गणसगण गणसगण - Eakhboondh | CM-9 | BB / PPT | 1 | 1 | | 2 |
| UNIT – III - गणसगणसगण गणसगणसगण (Applied grammar) | | | | | | | |
| 9 | गणसगणसगण गणसगणसगण गणसगणसगण I – Hindi pracharvahinee (11 to 20) | CM-14 to 33 | BB / PPT | 2 | 1 | | 3 |
| 10 | गणसगणसगण गणसगणसगण गणसगण 1 – Subodh Hindi rachna(5 to 11) | CM-34 to 54 | BB / PPT | 2 | 1 | | 3 |
| 11 | गणसगणसगण गणसगणसगण – opposites - Selected 25 | CM-13 | BB / PPT | 2 | 1 | | 3 |
| UNIT – IV - गणसगणसगणसगण गणसगणसगण (National knowledge) | | | | | | | |
| 12 | गणसगणसगणसगणसगणसगण - गणसगण -गणसगण -गणसगण - National Anthem-Jana-Gana-Mana | CM-56 | BB / PPT | 3 | 1 | | 4 |
| 13 | गणसगणसगणसगणसगणसगणसगण – vandematharam | CM-57 to | BB / | 2 | 1 | | 3 |

Webliography

- 4) https://en.wikipedia.org/wiki/Jana_Gana_Manana
https://en.wikipedia.org/wiki/Vande_Mataram

Gaps in the Syllabus

| SL. NO | Name of the Topic | Proposed Action | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|------------------------------------|-----------------|----------------------|--|
| 1. | Speaking Skill – Self Introduction | | 2 | HT |
| 2. | Reading Skill – Reading Activity | | 2 | HT |
| 3. | Speaking Skill – Assignment | | 1 | HB |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|--------------------------|----------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – IV | 20% |
| 2. | I INTERNAL | Unit – II, I(Chapter 1 & 2) | 50% |
| 3. | II INTERNAL | Unit – I (Chapter 3 & 4) , III,V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|--------------------------------|-------------|-----------|------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | S.Neela | | |

| Approved by | | | |
|----------------|--------------|-----------|------|
| | Name | Signature | Date |
| HoD | S.Neela | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

| | | | |
|--------------------------------|---|-----------------------------------|-----------------|
| Name of the Programme : | B.Sc Animation, Viscom, CS, Networking, Food Science & Processing, Fire & Industrial Safety and Marine Catering Hotel Management | | |
| Course Name : | General English II | Course Code : | 20UGE202 |
| Year / Semester | I / II | Section | |
| Total No. of Students | | No. of Credits | 3 |
| Corresponding lab Paper | No | Total No. of Contact Hours | 45 |
| Course Teacher Name | Mrs.R.Suganthi Hepzibha | | |

| Sl. No. | TOPIC | Course Material Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|---------------------------|---|-------------------------|-----------------|---------------------------------|----------|---|------------------|
| | | | | L | T | P | |
| UNIT – I - GRAMMAR | | | | | | | |
| 1 | Sentence Pattern: Introduction- Types of Sentence Pattern - Subject – Verb – Object – Direct Object – Indirect Object - Complement – Adjunct | CM-01 | BB / PPT | 2 | 1 | | 3 |
| 2 | Direct-Indirect Speech: Introduction - Procedure for converting Direct speech into Indirect speech - Rules for converting Direct speech into Indirect speech - Change in pronouns - Change in tenses - Change in modals - Changes for Assertive Sentences – Changes for Imperative sentences - Changes for Exclamatory sentences - Changes for Interrogative sentences - Punctuation in Direct speech - Rules for converting Indirect speech into Direct speech. | CM-10 | BB / PPT | 2 | 1 | | 3 |
| 3 | Active Voice – Passive Voice: Introduction – Usage: Active Voice. Passive voice – Reasons for using Passive voice - Changing Active voice to Passive voice - Changing Passive voice to Active voice (Changes for nine tenses) - | CM-18 | BB / PPT | 2 | 1 | | 3 |

| Sl. No. | TOPIC | Course Material Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|--------------------------------|---|-------------------------|----------------|------------------------------|----------|--|------------------|
| | Suggestions for using Active and passive voice. | | | | | | |
| UNIT – II - PROSE | | | | | | | |
| 4 | The Necklace – Guy De Maupassant: Introduction – Theme – Summary – Critical Appreciation. | CM-22 | VIDEO | 3 | | | 3 |
| 5 | Little Girls Wiser than Men – Leo Tolstoy: Introduction – Theme – Summary – Critical Appreciation. | CM-34 | VIDEO | 3 | | | 3 |
| 6 | An Astrologer’s Day – R.K.Narayan: Introduction – Theme – Summary – Critical Appreciation. | CM-37 | VIDEO | 3 | | | 3 |
| UNIT – III - VOCABULARY | | | | | | | |
| 7 | Idioms & Phrases: Importance (Selected 50) | CM-43 | BB | 2 | 1 | | 3 |
| 8 | Synonyms & Antonyms: Importance of learning words (Selected 50) | CM-52 | BB | 2 | 1 | | 3 |
| 9 | One Word Substitution: Importance – Usage in the Sentence (Selected 50) | CM-54 | BB | 2 | 1 | | 3 |
| UNIT – IV - POEM | | | | | | | |
| 10 | The Lotus - Toru Dutt: Introduction to Sonnet – Literary Devices – Summary. | CM-57 | VIDEO | 3 | | | 3 |
| 11 | If – Rudyard Kipling: Introduction – Literary Devices – Summary. | CM-59 | VIDEO | 3 | | | 3 |
| 12 | The Road Not Taken – Robert Frost: Introduction – Literary Devices – Summary. | CM-64 | VIDEO | 3 | | | 3 |
| UNIT – V – SENTENCE CORRECTION | | | | | | | |
| 13 | Correct Usage: Nouns – Definition – Rules. | CM-67 | BB / | 2 | 1 | | 3 |

| Sl. No. | TOPIC | Course Material Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|--------------------|--|-------------------------|-----------------|------------------------------|----------|--|------------------|
| | | | | | | | |
| | | | PPT | | | | |
| 14 | Correct Usage: Pronoun – Definition – Rules. Correct Usage: Adjectives – Definition – Rules. | CM-69 | BB / PPT | 2 | 1 | | 3 |
| 15 | Spotting Grammatical Error: Nouns – Pronouns – Adjectives – Exercises. | CM-71 | BB / PPT | 2 | 1 | | 3 |
| TOTAL HOURS | | | | | | | 45 |

Course Material

1. **General English II. A** Compiled book, covering all the topics of the syllabus prepared by the Department of English.

Reference Books

1. SrivasanHema. **Communication Skills**. Bangalore: Frank Brothers & Co. Ltd, 2004. Print.
2. Wren & Martin. **High School English Grammar & Composition**. India: S.Chand& Company Ltd, 1995. Print.
3. G.RadhakrishnaPillai. **Emerald English Grammar and Composition**. Bangalore: Emerald Publisher, 1998. Print.
4. Dr.K.Alex. **Soft Skills**. New Delhi: S.Chand& Company Ltd, 1997. Print.
5. Dr. Gupta C.B. **Business Correspondence & Reporting -Business Law, Business Correspondence & Reporting (CA-Foundation)**. New Delhi: Taxmann, 2018. Print.
6. A.P.Bhardwaj. **General English for Competitive Examinations**. New Delhi: Dorling Kindersley (India) Pvt. Ltd, 2013. Print.
7. Michael Swan. **Practical English Usage**. New Delhi: Oxford University Press,2008.Print
8. Randolph Quirck, Sidney Greenbaum, Geoffrey Leech, Jan Svartvik. **A Comprehensive Grammar of the English Language**. New Delhi: Dorling Kindersley (India) Pvt. Ltd, 2010. Print.
9. John Adair. **The Effective Communicator**. Noida: Anubha Printers. 2005. Print.

E – Books /Library INFLIBNET RESOURCES

1. <https://nlist.inflibnet.ac.in/search/Record/EBC483375>
2. <https://nlist.inflibnet.ac.in/search/Record/EBC481114>
3. <https://nlist.inflibnet.ac.in/search/Record/EBC1864716>

Gaps in the Syllabus

| SL. NO | Name of the Topic | Proposed Action | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|------------------------------------|-----------------|----------------------|--|
| 1. | Speaking Skill – Self Introduction | | 3 | HT |
| 2. | Reading Skill – Reading Activity | | 2 | HT |
| 3. | Speaking Skill – Assignment | | 1 | HB |

* Proposed Actions can be Assignments, Seminars, Peer Teaching, Industrial Visit, Others (if any)

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|----------------------------|----------------------------|
| 1 | 1 | Reading Skill | Newspaper | Newspaper Reading | 1 |
| 2 | 2 | Reading Skill | Magazine | Article / Magazine Reading | 1 |
| 3 | 3 | Speaking Skill | Oral | Debate / Group Discussion | 1 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|--------------------------|------------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – I | 20% |
| 2. | I INTERNAL | Unit – I, II, III (Chapter 1 & 2) | 50% |
| 3. | II INTERNAL | Unit – III (Chapter 2 & 3) , IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|--------------------------------|---------------------|-----------|------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | R.Suganthi Hepzibha | | |

| Approved by | | | |
|----------------|---------------------|-----------|------|
| | Name | Signature | Date |
| HoD | R.Suganthi Hepzibha | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

Name of the Programme: B.Sc Food Science and Processing Management
Course Name : Fundamentals of Food Processing and Preservation
Year / Semester : II / IV
No of Credits : 4
Course Teacher(s) Name: Ms. A.Sona

Programme Code : FM1011
Course Code : 20BF203
Total No. of Students: 14
Total No. of Contact Hours : 60
Corresponding lab Paper : Yes

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|---|-------------------------------|----------------|---------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Definition of food processing and food preservation | R2 | BB | 1 | | | 12 |
| 2. | Aims of food processing | W3 | BB | 1 | | | |
| 3. | Historical developments and current developments | W4 | BB | 2 | | - | |
| 4. | Principles of food processing and preservation | T1, 28 | BB | 3 | 1 | | |
| 5. | Methods of food preservation | R2,363 | BB | 3 | 1 | | |
| UNIT – II | | | | | | | |
| 6. | Methods of drying – sun drying, mechanical drying | T2, 88 | BB | 2 | 1 | | 12 |
| 7. | Drying procedure | T2, 85 | BB | 2 | 1 | | |
| 8. | Evaporation – General principles | T2, 71 | BB | 2 | | - | |
| 9. | Filtration – General principles | T2, 432 | BB | 2 | | | |
| 10. | Centrifugation– General principles | T2, 444 | BB | 1 | | | |
| 11. | Distillation - General principles | T2, 462 | BB | 1 | | | |

| UNIT – III | | | | | | | |
|------------|---|------------|----|---|---|--|----|
| 12. | Thermal processing – Blanching, Pasteurization | T2, 26, 48 | BB | 2 | | | 12 |
| 13. | Thermal processing –Sterilization | T2, 53 | BB | 2 | | | |
| 14. | Thermal processing –Canning, Bottling | W2 | BB | 2 | | | |
| 15. | Extrusion | T2, 251 | BB | 1 | | | |
| 16. | Dielectric heating | W2 | BB | 1 | | | |
| 17. | Non thermal processing – Ohmic heating | T1, 262 | BB | 1 | | | |
| 18. | Microwave heating | T1, 256 | BB | 1 | | | |
| 19. | Radio frequency. Infra red heating | W2 | BB | 1 | | | |
| 20. | Irradiation, Smoking | T3, 147 | BB | 1 | | | |
| UNIT – IV | | | | | | | |
| 21. | Refrigeration | T1, 128 | BB | 2 | | | 12 |
| 22. | Freezing – Methods of freezing | T2, 125 | BB | 2 | 1 | | |
| 23. | Changes during freezing | T1, 174 | BB | 2 | 1 | | |
| 24. | Use and application of enzymes and microorganisms in processing and preservation of foods – food fermentations, | T1, 264 | BB | 2 | | | |
| 25. | Pickling | W2 | BB | 2 | | | |
| UNIT – V | | | | | | | |
| 26. | Natural agents in food preservation and their advantages – salt, sugar. | W2 | BB | 2 | | | 12 |
| 27. | Chemicals in food preservation – antimicrobial | W2 | BB | 2 | | | |
| 28. | Chemicals in food preservation – antioxidant. | W2 | BB | 2 | | | |
| 29. | Pulsed electric field | W2 | BB | 1 | | | |
| 30. | Modified atmosphere | W2 | BB | 1 | | | |
| 31. | High pressure preservation | W2 | BB | 1 | | | |

| | | | | | | | |
|--------------------|--------------------------|--------|----|---|--|--|----|
| 32. | Bioelectric preservation | W2 | BB | 1 | | | |
| 33. | Hurdle technology | R2,397 | BB | 2 | | | |
| TOTAL HOURS | | | | | | | 60 |

Text Book

| | |
|----|---|
| T1 | Potter NH, “ <i>Food Science</i> ”, CBS Publication (New Delhi) |
| T2 | Brennan. (2009). “ <i>Food Processing Handbook</i> ”, Weinheim: Wiley - VCH Verlag G & CO |

Reference Books

| | |
|----|--|
| R1 | Fellows P.J (2000). <i>Food Processing Technology – Principles and practice</i> , Florida, USA: CRC Press LLC. |
| R2 | Srilakshmi, B. (2010). “ <i>Food Science</i> ”, New Age International. (p) Ltd, Chennai. |

Web Resources

| | |
|----|---|
| W1 | https://www.slideshare.net/pallvidhotra/hurdle-technology |
| W2 | http://www.ignouhelp.in/ignou-mscdfsm-study-material/ |
| W3 | https://hmhub.me/objectives-food-processing/ |
| W4 | https://foodprocessinghistory.blogspot.com/2011/09/development-of-food-preservation.html |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | Anterpreet Kaur Arora et al, “ Is chemical safety to food hazardous? – Dangers of food preservatives”, J Indian Acad Forensic Med, 31(4) (2010) |
|----|---|

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|-----------------------------------|-----------------|----------------------|--|
| 1. | Modern food processing techniques | Seminars | 3 | HT |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| SI.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|------------------------------------|----------------------------|
| 1 | W1 | Lecture | PPT | Hurdle technology and its benefits | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|----------------|--------------------------|---|---|
| 1. | SLIP / CLASS TEST | Unit – I | 20% |
| 2. | I INTERNAL | Unit – I, II, III (up to Extrusion) | 50% |
| 3. | II INTERNAL | Unit – III (from Dielectric heating) , IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|-----------------------|------------------|-------------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | A.Sona | | |
| Programme Coordinator | P.Deepalakshmi | | |

| Approved by | | | |
|-----------------------|---------------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

Name of the Programme: B.Sc., Food Science and processing Management

Course Code : 20BF206

Title of the Course : Fundamentals of Food Processing and Preservation Practical

Year / Semester : I /

II No of Credits : 2

Total No. of Students:

13

Course Teacher Name: Mrs. P. Deepalakshmi

Total No. of Contact Hours: 60

| Sl. No. | Week No. | Name of the Experiment | Page No in the Lab Manual | No. of Hours | Cumulative Hours |
|---------|----------|--|---------------------------|--------------|------------------|
| 1 | I | Preservation by drying Preparation of Vadagam and Vathal | | 4 | 12 |
| 2 | II | Drying of green leafy vegetables | | 4 | |
| 3 | III | Effect of drying on food characteristics | | 4 | |

| | | | | | |
|----|------|---|--|--------------------------------|----|
| 4 | IV | Preservation using Salt and sugar Preservation using Salt – Pickles (Tomato, Mango, Amla) | | 6 | 12 |
| 5 | V | Preservation using Sugar – Jam, Jelly, Marmalade, Murabbas | | 6 | |
| 6 | VI | Chemical preservation Preservation using chemicals – Squash, Ketchup | | 6 | 12 |
| 7 | VII | Osmotic dehydration of foods e.g. Candy | | 6 | |
| 8 | VIII | Preparation and processing of fruits and vegetables Enzymatic and Non- Enzymatic browning | | 6 | 12 |
| 9 | IX | Prevention of browning in fruits and vegetables | | 6 | |
| 10 | X | Preparation of preserves & fermented foods Development of fruit & Vegetable preserve | | 6 | 12 |
| 11 | XI | Preservation of food by fermentation –Wine, Yoghurt, Idli | | 6 | |
| | | | | TOTAL NO. OF. HOURS: 60 | |

Gap in the Syllabus

| SL. NO | Name of the Topic | No of Hours Allotted |
|--------|---|----------------------|
| 1. | General Points to be remembered in the laboratory | 2 |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS

| Sl.NO | Topic | Total No of Hours Allotted |
|-------|---------------------------|----------------------------|
| 1 | Estimation of crude fibre | 2 |

| Designation | Prepared by | | |
|--------------------------------------|---------------------------|------------------|-------------|
| Assistant Professor | Name | Signature | Date |
| Course Coordinator / Incharge | Mrs.P.Deepalakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

| Approved by | | | |
|-----------------------|----------------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr. R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

Name of the Programme: Food Science and Processing Management

Programme Code : FM1101

Title of the Course: Food Microbiology

Course Code : 20BF204

Year / Semester : I/II

Total No. of Students : 13

No of Credits : 5

Total No. of Contact Hours : 60

Course Teacher Name: Mrs. M. Venkata Subbulakshmi

Corresponding lab Paper : Yes

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|---|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Introduction to Food Microbiology, Difference between Prokaryotes and eukaryotes, | T1 , 1-59 | BB | 2 | 2 | | 12 |
| 2. | General characteristics of Bacteria Virus, Fungi and Molds - Morphological characteristics, important in food bacteriology-Industrial importance. | | BB/V | 3 | | | |
| 3. | Influence of environmental factors on growth-PH | | BB | 2 | | | |
| 4. | Water activity, O ₂ availability, Temperature, Pressure and Radiation | | BB/V | 3 | | | |
| 5. | Revision / Test / Quiz | | | | | | |
| UNIT – II | | | | | | | |
| 6. | Primary source of micro organisms in food, | T1, 69-81 | BB | 3 | 2 | | 12 |
| 7. | Factors affecting growth and survival of microorganisms in food – intrinsic, extrinsic and implicit factors | | BB | 2 | | | |
| 8. | Chemical changes caused by micro organisms, | | BB | 2 | | | |
| 9. | Control of microorganisms in food – sterilization and disinfection, removal of microbes- filtration sedimentation and chemical agents | | BB | 3 | | | |
| 10. | Revision / Test / Quiz | | | | | | |

| UNIT – III | | | | | | | |
|--------------------|---|--------------|------|---|---|--|----|
| 11. | Contamination and Spoilage of Different Foods Food Spoilage - Types, Contaminati | T1, 170- 310 | BB | 3 | 2 | | 12 |
| 12. | Spoilage of specific food groups - Cereals, Sugar, Vegetables and Fruits | | BB/V | 3 | | | |
| 13. | Milk, Canned foods sugar and Confectionaries | | BB | 2 | | | |
| 14. | Animal products , Sea foods and Egg. | | | 2 | | | |
| 15. | Revision / Test / Quiz | | | | | | |
| UNIT – IV | | | | | | | |
| 16. | Beneficial Uses of Microorganisms in the Food Industry Importance of microbes in foods | T1, 319-382 | BB | 2 | 2 | | 12 |
| 17. | Microbial and fermented foods - | | BB | 3 | | | |
| 18. | Alcoholic drinks, Dairy products , Vinegar | | BB | 3 | | | |
| 19. | Bread and malt beverages, wheat products | | BB | 2 | | | |
| 20. | Revision / Test / Quiz | | | | | | |
| UNIT – V | | | | | | | |
| 21. | Food Borne illness and Intoxication , Definition of food poisoning | T1, 399-440 | BB | 3 | 2 | | 12 |
| 22. | High risk foods, Food Infection and food Intoxications. Classification of Food-Borne Diseases | | BB | 2 | | | |
| 23. | Food Poisoning - <i>Salmonellosis</i> , <i>Staphylococcal</i> poisoning, <i>Botulism</i> , <i>Shigellosis</i> . | | BB/ | 2 | | | |
| 24. | Food Borne Infection- <i>Campylobacter</i> species, <i>Listeria</i> species, <i>E.coli</i> . Aflatoxin | | BB | 3 | | | |
| 25. | Revision / Test / Quiz | | | | | | |
| TOTAL HOURS | | | | | | | 60 |

Text Book

| | |
|----|---|
| T1 | . Frazier W., (1995)., “Food Microbiology”, New Delhi, India: Tata McGraw Hill Publishing Company Ltd |
|----|---|

Reference Books

| | |
|----|---|
| R1 | Fellows P.J (2000). Food Processing Technology – Principles and practice, Florida, USA: CRC Press LLC |
|----|---|

Web Resources

| | |
|----|---|
| W1 | https://nptel.ac.in/content/storage2/courses/102103012/pdf/mod1.pdf |
| W2 | https://www.researchgate.net/publication/324930927_Food_Poisoning_and_Intoxication_A_Global_Leading_Concern_for_Human_Health |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://dyahayusavitri.files.wordpress.com/2012/05/food-microbiology-3rd-ed.pdf |
|----|---|

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---|-----------------|----------------------|--|
| 1. | Difference between Prokaryotes and eukaryotes | Assignment | 2 | HB |
| 2. | Food Borne illness | Assignment | 2 | HB |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|---|----------------------------|
| 1 | I | Lecture | PPT | Water Contamination and Testing Methods | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|-----------------------|---------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | UNIT – II | 20% |
| 2. | I INTERNAL | UNIT - I, II, III(Fruits) | 50% |
| 3. | II INTERNAL | UNIT – III(Milk), IV, V | 50% |
| 4. | Summative Examination | ALL FIVE UNITS | 100% |

| Designation | Prepared by | | |
|---------------------------------------|--------------------------------|-----------|------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / In-charge | M. Venkata Subbulakshmi | | |
| Programme Coordinator | P. Deepalakshmi | | |

| Approved by | | | |
|-----------------------|----------------------|-----------|------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R. Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

Name of the Programme: Food Science and processing Management

Course Code : 20BF207

Title of the Course: Food microbiology Practical

Year / Semester : I/

II No of Credits : 2

Total No. of Students:

14

Course Teacher Name: Mrs. M.Venkata Subbulakshmi

Total No. of Contact Hours: 60

| Sl. No. | Unit | Week No. | Name of the Experiment | Page No in the Lab Manual | No. of Hours | Cumulative Hours |
|---------|------|----------|---|---------------------------|--------------|------------------|
| 1 | I | 1 | Introduction to laboratory practices –Personal protection in microbiology Lab | | 4 + 2 | 6 |
| 2 | II | 2 | Sterilization techniques | | 4 + 2 | 6 |
| 3 | III | 3 | Microscopy : principles, use, size and maintenance | | 4 + 2 | 6 |
| 4 | IV | 4 | Preparation of medium (Agar slant, Agar Stab and Agar plate) | | 4 + 2 | 6 |
| 5 | V | 5 | Plating methods (Spread or pour and Streak Plate methods) | | 4 + 2 | 6 |
| 6 | VI | 6 | Serial dilution and sample inoculation | | 4 + 2 | 6 |
| 7 | VII | 7 | Enumeration of microorganism from food sample | | 4 + 2 | 6 |
| 8 | VIII | 8 | Demonstration of Microbes under Microscope (Fungi, Mold, Bacteria) | | 4 + 2 | 6 |
| 9 | IX | 9 | Staining Methods | | 4 + 2 | 6 |
| 10 | X | 10 | Methylene blue reduction test for milk | | 4 + 2 | 6 |
| | | | | Total No. of. Hours | | 60 |

Gap in the Syllabus

| SL. NO | Name of the Topic | No of Hours Allotted |
|---------------|---|-----------------------------|
| 1. | General Points to be remembered in the laboratory | 2 |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS

| SL.NO | Topic | Total No of Hours Allotted |
|--------------|-------------------------------|-----------------------------------|
| 1 | Lacto Phenol Cotton Blue Test | 2 |

| Approved by | | | |
|-----------------------|----------------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr. R.Sujatha | | |

| Designation | Prepared by | | |
|--------------------------------------|------------------------------------|------------------|-------------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / Incharge | Mrs. M.Venkata Subbulakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN - 2020 - 21 (ODD SEMESTER)

Name of the Programme : BSc FSPM

Programme Code : FM1011

Title of the Course : Principle of Financial Operations

Course Code : 20BF208

Year / Semester : I / II

Section:

Total No. of Students: 13

No of Credits : 4

Total No. of Contact Hours : 45

Course Teacher (s) Name : Mrs.V.Padmavathy

Corresponding lab Paper : No

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|-------------------------------------|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT - I | | | | | | | |
| 1. | Meaning of Accounting | T1 – 1.1 – 1.17 | PPT | 1 | | | 1 |
| 2. | Accounting terms | T1 – 1.1 – 1.17 | PPT | 1 | | | 2 |
| 3. | Users of Accounting Information | T1 – 1.1 – 1.17 | PPT | 2 | | | 4 |
| 4. | Accounting concepts and Conventions | T1 – 2.1- 2.16 | PPT | 2 | | | 6 |
| 5. | Classification of Accounts | T1 – 2.1-2.16 | PPT | 2 | | | 8 |
| 6. | Golden rules of Accounting | T1 – 2.1 – 2.16 | PPT | 1 | | | 9 |
| UNIT – II | | | | | | | |
| 7. | Meaning of Journal Entry | T1 2.17-2.116 | PPT | 1 | | | 10 |

| | | | | | | | |
|-------------------|---|---------------|-----|---|--|--|----|
| 8. | Describe the procedure for Journalizing | T1 2.17-2.116 | PPT | 1 | | | 11 |
| 9. | Meaning of Ledger | T1 2.17-2.116 | PPT | 2 | | | 14 |
| 10. | Procedure for posting of Journal entries into ledger accounts | T1 2.17-2.116 | PPT | 2 | | | 16 |
| 11. | Meaning of Trial balance | T1 3.1-3.25 | PPT | 2 | | | 18 |
| 12. | Method of preparing a Trial balance | T1 3.1-3.25 | PPT | 1 | | | 19 |
| UNIT – III | | | | | | | |
| 13. | Meaning of Final accounts | T1 5.1 – 5.83 | PPT | 1 | | | 20 |
| 14. | Trading account | T1 5.1 – 5.83 | PPT | 1 | | | 21 |
| 15. | Profit and loss account | T1 5.1 – 5.83 | PPT | 2 | | | 23 |
| 16. | Balance Sheet (with simple adjustments) | T1 5.1 – 5.83 | PPT | 2 | | | 25 |
| 17. | Preparation of Single Column Cash book | T1 2.17-2.116 | PPT | 2 | | | 27 |
| UNIT – IV | | | | | | | |
| 18. | Cost accounting Introduction | T2 1-66 | PPT | 1 | | | 28 |
| 19. | meaning of cost, costing and cost accounting | T2 1-66 | PPT | 2 | | | 30 |
| 20. | cost concepts | T2 1-66 | PPT | 1 | | | 31 |
| 21. | classification of costs | T2 1-66 | PPT | 2 | | | 33 |
| 22. | elements of cost | T2 1-66 | PPT | 1 | | | 34 |
| 23. | preparation of cost sheet | T2 1-66 | PPT | 3 | | | 37 |
| 24. | Preparation of Cash Budget | T2 665-698 | PPT | 2 | | | 39 |
| UNIT – V | | | | | | | |
| 25. | Marginal costing Meaning Definition | T3 570-664 | PPT | 1 | | | 40 |

| | | | | | | | |
|--------------------|--|------------|-----|---|--|--|-----------|
| 26. | Even Analysis (Chart, Assumptions, Angle of Incidence) | T3 570-664 | PPT | 2 | | | 42 |
| 27. | CVP analysis | T3 570-664 | PPT | 1 | | | 43 |
| 28. | PV ratio ,Contribution | T3 570-664 | PPT | 1 | | | 44 |
| 29. | Margin of Safety | T3 570-664 | PPT | 1 | | | 45 |
| TOTAL HOURS | | | | | | | 45 |

* L - Lecture T - Tutorial (Problems / Example Programs / Revision Classes) P - Practical

* LCD / PPT / Black Board (BB) / Worksheet(WS) / Video (V) / Group Discussion (GD) / Blended & Flipped (BF) / Open Educational Resources (OER) media that are freely accessible, Google tools like Drive (GRV) , Google Docs (GDO), and Google Slides(GS) , Google Forms (GOF) and Whiteboards(WB),Wikipedia (W) any other tools may also be included.

[Mark the abbreviation in the teaching aids column]

Text Book

| | |
|----|---|
| T1 | Financial Accounting – T.S.Reddy & A.Murthy |
| T2 | Cost Accounting – R.S.N.Pillai & V.Bagavathi. S.Chand Publication |

Reference Books

| | |
|----|-------------------------------------|
| R1 | Cost Accounting - S.P.Jain & Narang |
| R3 | Financial Accounting – R.L.Gupta |

Web Resources

| | |
|----|---|
| W1 | https://www.icaew.com/library/library-collection/ebooks/financial-management |
|----|---|

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://www.icaew.com/library/library-collection/ebooks/financial-management |
|----|---|

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|--------------------------|-----------------|----------------------|--|
| 1. | Final accounts | Seminar | 2 | HT |
| 2. | Cost Volume profit ratio | Seminar | 2 | HT |

* *Proposed Actions can be Assignments , Seminars, Peer Teaching, Industrial Visit , Others (if any)*

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|--|----------------------------|
| 1 | 1 | Lecture | PPT | Share certificates issued by companies | 1 |
| 2 | 2 | Lecture | Case study | Working capital management by manufacturing unit | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|----------------|--------------------------|---|---|
| 1. | SLIP / CLASS TEST | Unit - 1 | 20% |
| 2. | I INTERNAL | Unit - I, II, III (upto Balance Sheet) | 50% |
| 3. | II INTERNAL | Unit – III (from Single Column Cash book) , IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|-------------------------|------------------|-------------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | Mrs.V.Padmavathy | | |
| Programme Coordinator | Mrs. Sona | | |

Approved by

| | Name | Signature | Date |
|-----------------------|---------------------|------------------|-------------|
| HoD | Mrs. Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | DR.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 2021 (EVEN SEMESTER)

Name of the Programme : B.Sc Food Science and Processing Management

Programme Code: FM1011

Title of the Course : Computer Application Practical

Course Code : 20BF208

Year / Semester : I / II

Total No. of Students : 13

No of Credits : 2

Total No. of Contact Hours : 2

Course Teacher (s) Name : Mr. J. RAJKUMAR

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-----------------|---|-------------------------------------|-------------------|---------------------------------|---|---|---------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 23. | To create an advertisement in MS Word | NA | PPT, T | 0 | 0 | 2 | 2 |
| 24. | To create a table with student details & calculate total | NA | PPT, T | 0 | 0 | 2 | 2 |
| 25. | Create a Calendar and format it | NA | PPT, T | 0 | 0 | 2 | 2 |
| 26. | Prepare a Resume | NA | PPT, T | 0 | 0 | 2 | 2 |
| 27. | Manipulation with Pictures | NA | PPT, T | 0 | 0 | 2 | 2 |
| 28. | Prepare a Greeting Card | NA | PPT, T | 0 | 0 | 2 | 2 |
| 29. | Usage of bullets & numbering, Borders & Shading, Drop Cap | NA | PPT, T | 0 | 0 | 2 | 2 |
| 30. | Prepare newspaper column, footer and header | NA | PPT, T | 0 | 0 | 2 | 2 |
| 31. | Usage of Spell checks, find and replace | NA | PPT, T | 0 | 0 | 2 | 2 |
| 32. | To create a template | NA | PPT, T | 0 | 0 | 2 | 2 |
| 33. | To illustrate the concept of mail merging in MS word | NA | PPT, T | 0 | 0 | 2 | 2 |
| 34. | Usage of formula and built in functions | NA | PPT, T | 0 | 0 | 2 | 2 |

| | | | | | | | |
|--------------|--|----|--------|---|---|---|-----------|
| 35. | Data Sorting | NA | PPT, T | 0 | 0 | 2 | 2 |
| 36. | Prepare a spread sheet for result analysis of students in various subjects | NA | PPT, T | 0 | 0 | 2 | 2 |
| 37. | Pay Slip Preparation | NA | PPT, T | 0 | 0 | 2 | 2 |
| 38. | Electric bill preparation | NA | PPT, T | 0 | 0 | 2 | 2 |
| 39. | Drawing Graphs & Charts | NA | PPT, T | 0 | 0 | 2 | 2 |
| 40. | Create a presentation with Animation | NA | PPT, T | 0 | 0 | 2 | 2 |
| 41. | Create presentation with slide navigation | NA | PPT, T | 0 | 0 | 2 | 2 |
| 42. | Create a presentation to include Custom Animation | NA | PPT, T | 0 | 0 | 2 | 2 |
| TOTAL | | | | | | | 30 |

Web Resources

| | |
|----|---|
| W1 | https://www.w3schools.com |
| W2 | https://www.tutorialspoint.com |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|--------------------------|---------------------------------|------------------------------------|
| 1. | I INTERNAL | 1 - 10 Exercises | 50% |
| 2. | II INTERNAL | 11 - 20 Exercises | 50% |
| 3. | End Semester Examination | 20 Exercises | 100% |

| Designation | Prepared by | | |
|---------------------------------------|----------------------|------------------|-------------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | Mr. J. Rajkumar | | |
| Programme Coordinator | Mrs. P. Deepalakshmi | | |

| Approved by | | | |
|-----------------------|----------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms. A. Sona | | |
| Dean Academics | Dr. S. Priya | | |
| Principal | Dr. R. Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

| Name of the Programme : | Food Science and Processing Management | Programme Code : | FM1011 | | | | |
|--------------------------------|--|-----------------------------------|----------------|---------------------------------|---|---|------------------|
| Course Name : | EVS | Course Code : | 20ES210 | | | | |
| Year / Semester | I/II | Section | - | | | | |
| Total No. of Students | 13 | No. of Credits | 2 | | | | |
| Corresponding lab Paper | NO. | Total No. of Contact Hours | 30 | | | | |
| Course Teacher Name | M.Venkatasubbulakshmi | | | | | | |
| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Introduction to environmental studies Multidisciplinary nature of environmental studies | T1-3 | PPT | 2 | | | 2 |
| 2. | Scope and importance; Concept of sustainability and sustainable development | T1-3-5 | PPT | 1 | | | 1 |
| UNIT – II | | | | | | | |
| 3. | Ecosystems –Self Study (Assessment in terms of Assignment only)-What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession | T1-54-56 | V | 1 | | | 1 |
| 4. | Case studies of the following ecosystems: a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds/ streams/ lakes/ rivers/ | T1-65-75 | V | 1 | | | 1 |

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-------------------|---|-------------------------------|----------------|------------------------------|--|--|------------------|
| | oceans/estuaries) | | | | | | |
| UNIT – III | | | | | | | |
| 5. | Natural Resources : Renewable and Non-renewable Resources -Land resources and land use change; Land degradation, soil erosion and desertification | T1-20-22 | PPT | 2 | | | 2 |
| 6. | Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations | T1-23 | PPT | 1 | | | 1 |
| 7. | Water : Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state). | T1-26 | PPT | 1 | | | 1 |
| 8. | Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs. | T1-35 | PPT | 1 | | | 1 |
| UNIT – IV | | | | | | | |
| 9. | Biodiversity and Conservation Self Study (Assessment in terms of Assignment only)-Levels of biological diversity: genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots | T1-82-83 | BB | 1 | | | 1 |
| 10. | India as a mega-biodiversity nation; Endangered and endemic species of India -Threats to biodiversity : Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity | T1-89 | BB | 1 | | | 1 |
| 11. | Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value. | T1-84-88 | BB | 1 | | | 1 |
| UNIT – V | | | | | | | |

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery | | | Cumulative Hours |
|------------|--|-------------------------------|----------------|------------------|--|--|------------------|
| | | | | No of Hours | | | |
| 12. | Environmental Pollution | T1-112 | V | 1 | | | 1 |
| 13. | Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution | T1-113-140 | V | 2 | | | 2 |
| 14. | Nuclear hazards and human health risks | T1-143 | V | 1 | | | 1 |
| 15. | Solid waste management : Control measures of urban and industrial waste. • Pollution case studies. | T1-145 | V | 1 | | | 1 |
| UNIT – VI | | | | | | | |
| 16. | Environmental Policies & Practices-Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture | T1-182-186 | BB | 2 | | | 2 |
| 17. | Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD). | T1-193-199 | BB | 2 | | | 2 |
| 18. | Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context. | T1-23 | BB | 2 | | | 2 |
| UNIT – VII | | | | | | | |
| 19. | Human Communities and the Environment • Human population growth: Impacts on environment, human health and welfare. • Resettlement and rehabilitation of project affected persons; case studies. • Disaster management : floods, earthquake, cyclones and landslides. | T1-214,156,172 | BB | 2 | | | 2 |
| 20. | Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan | W2 | PPT | 1 | | | 1 |
| 21. | Environmental ethics: Role of Indian and other religions | T1-237 | BB | 1 | | | 1 |

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|--------------------|---|-------------------------------|----------------|------------------------------|--|--|------------------|
| | and cultures in environmental conservation. | | | | | | |
| 22. | Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi). | T1-122-123 | BB | 2 | | | 2 |
| TOTAL HOURS | | | | | | | 30 |

Text Book

1. Bharucha, E. (2004). *Environmental Studies For Undergraduate Courses of all Branches of Higher Education*. New Delhi: University Grants Commission.

Reference Books

2. Agarwal KC, 2001. *Environmental Biology*, Nidi Publishers Ltd. Bikaner.

Web Resources

1. <https://www.ugc.ac.in/oldpdf/modelcurriculum/env.pdf>
2. <https://www.clearias.com/environmental-movements-in-india/>

E – Books /Library INFLIBNET RESOURCES

1. <https://www.ugc.ac.in/oldpdf/modelcurriculum/env.pdf>

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|-------------------|-----------------|----------------------|--|
| 1. | Forest products | Assignment | 2hrs | HB |

* Proposed Actions can be Assignments, Seminars, Peer Teaching, Industrial Visit, Others (if any)

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|-----------------------------|----------------------------|
| 1 | 1 | Lecture | PPT | Rainwater Harvesting | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|---------------------------------|--------------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit-1 | 20% |
| 2. | I INTERNAL | Unit - I,II,III,IV(Topic 1-2) | 50% |
| 3. | II INTERNAL | Unit – IV(Topic3),V,VI,VII | 50% |
| 4. | End Semester Examination | All Seven Units | 100% |

| Designation | Prepared by | | |
|--------------------------------|-------------|-----------|------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | | | |
| Programme Coordinator | | | |

| Approved by | | | |
|----------------|-----------------------|-----------|------|
| | Name | Signature | Date |
| HoD | | | |
| Dean Academics | Dr. S. Priya | | |
| Principal | Dr. R. Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (ODD/EVEN SEMESTER)

| | | | |
|--------------------------------|--------------------------|-----------------------------------|---------|
| Name of the Programme : | ANI/VIS/CS/NET/MCHM/FSPM | | |
| Course Name : | General Tamil IV | Course Code : | 19UT104 |
| Year / Semester | II / II | Section | |
| Total No. of Students | | No. of Credits | 3 |
| Corresponding lab Paper | Yes / No. | Total No. of Contact Hours | 45 |
| Course Teacher Name | | | |

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-----------|--|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1 | நண் றிளண்-விளள யாடு ஆயஹமாடு | 1 | BB | 2 | | | 2 |
| 2 | குறுந்ஹதாளக- நிலததிமம் ஹபரினத,அகவண் மகனள | 3 | BB | 2 | | | 2 |
| 3 | புண்நாபறு- உண் டால் அம் ம,தெறுழிதவியும் | 4 | BB | 2 | | | 2 |
| | சிறுபாணாண் றுப்பளட -திண்வாக் கண் ண | 7 | BB | 3 | | | 3 |
| UNIT – II | | | | | | | |
| | திருக்குண்ள் -அண் புளடளம (பத்F | CM/10 | BB | 2 | | | 3 |

| Sl. No. | TOPIC | Reference / Text Book Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-------------|---|-------------------------------|----------------|------------------------------|--|--|------------------|
| | குடை்பாக்கள்) | | | | | | |
| | நாலடியார் -கல்வி - மூதல் ஐந் F பாடல்கள் | CM/13 | BB | 2 | | | 3 |
| | மூளர-மூதல் ஐந் F பாடல்கள் மட்டு | CM/15 | BB | 2 | | | 3 |
| UNIT – III | | | | | | | |
| | புதின இலக்கியம் -சப்பரம் | CM/16 | BB | 2 | | | 9 |
| UNIT – IV | | | | | | | |
| | வழுஉச் ஹசாண்களள நீக்குதல் | CM/65 | BB | 3 | | | 3 |
| | பிஹமாழிச் ஹசாண்களள நீக்குதல் | CM/67 | BB | 3 | | | 3 |
| | ஹசாண்பிரிப்புப் பிளழகளள நீக்குதல் | CM/69 | BB | 3 | | | 3 |
| UNIT – V | | | | | | | |
| | சங்க இலக்கியம் ஓர் அறிமுகம் | CM/72 | BB | 3 | | | 3 |
| | புதினங்களின் தாண்மைமும் வளரச்சியும் | CM/75 | BB | 3 | | | 3 |
| | கடித வளககள் எழுதல் | - | BB | 3 | | | 3 |
| TOTAL HOURS | | | | | | | 45 |

L – Lecture T – Tutorial (Problems / Example Programs / Revision Classes) P – Practical

* LCD / PPT / Black Board (BB) / Worksheet(WS) / Video (V) / Group Discussion (GD) / Blended & Flipped (BF) / Open Educational Resources (OER) media that are freely accessible, Google tools like Drive (GRV) , Google Docs (GDO), and Google Slides(GS) , Google Forms (GOF) and Whiteboards(WB),Wikipedia (W) any other tools may also be included. [Mark the abbreviation in the teaching aids column]

Course Material

Reference Books

1. சங்க இலக்கியம் த்ஹதாளக,நியூஹசஞ்சரி புக் ெவுஸ் ,ஹசன் என. டிசம்பர் 2010 ,எட்டு
2. பதிஹணை கீழ்க்கணக்கு நுல்கள்,சாரதா பதிப்பகம்,ஹகரரா ஏஜன்சீஸ் ,ஹ ண் என. டிசம்பர் 2012
3. சப்பரம்,சுப்பாரதிமணியன் , நியூ ஹசஞ்சரி புக் ெவுஸ் ,ஹசன் என. ஜூலை 2015
4. தமிழ் நளடக் ளகயட ு,தமிழ் ப் பல்களலக்கழகம்,தஞ்சைசாலூர் அளடயாளம் பதிப்பகம்,புத்தானத்தம் .டிசம்பர் 2015
5. தமிழ் இலக்கிய வரலாறு, ம.வரதராசன், சாகித்திய அகாஹதமி, ஹசன் என. டிசம்பர் 2015 தண் டியலங்காரம்.எசவ சித்தாந்த நுணை பதிப்புக் கழக ஹவளியீட ு,ஹசன் என: 1976.Print.
6. தமிழ் இலக்கிய வரலாறு-1 .ம.ச.விமலானந்தம். முள்ள நளயம், ஹசன் என: 1976.Print.

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---------------------------|-----------------|----------------------|--|
| 1. | ஹசய்தித்தாள்கள் வாசித்தல் | | 2 | (HB) |
| 2. | புத்தகம் வாசித்தல் | | 2 | (HB) |

* Proposed Actions can be Assignments, Seminars, Peer Teaching, Industrial Visit, Others (if any)

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| SI.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|--|----------------------------|
| 1 | 1 | Assignment | 2 | கட்டுரை எழுதல் | 2 |
| 2 | | Seminar | 2 | புத்தகம் வாசித்தல் வரிமரச் னம் ஹசய்தல் | 2 |
| 3 | 2 | Peer teaching | 2 | நளமுளை நிகழ்வுகளள கலந்தானலாசித்தல் | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|---------------------------------|--|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – I | 20% |
| 2. | I INTERNAL | Unit – I, II, III (up to-----) | 40% |
| 3. | II INTERNAL | Unit – III (from-----) , IV, V | 40% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|--------------------------------|-------------|-----------|------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | N.SELVI | | |

| Approved by | | | |
|----------------|---------------------|-----------|------|
| | Name | Signature | Date |
| HoD | Mrs.N.SELVI | | |
| Dean Academics | Dr.S.PRIYA | | |
| Principal | Dr.R.SUJATHA | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

| | | | |
|-------------------------------|--|---------------------|-----------------|
| Name of the Programme: | B.Sc Animation, Viscom, CS, Networking, Food Science & Processing, and Fire & Industrial Safety | | |
| Course Name: | General English IV | Course Code: | 19UGE402 |

| | | | |
|--------------------------------|-----------------------------|-----------------------------------|-----------|
| Year / Semester | IV | Section | |
| Total No. of Students | | No. of Credits | 3 |
| Corresponding lab Paper | No | Total No. of Contact Hours | 45 |
| Course Teacher Name | Mr. C. Senthil Kumar | | |

| Sl. No. | TOPIC | Course Material Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|---|--|-------------------------|----------------|---------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I-INTRODUCTION TO COMMUNICATION | | | | | | | |
| 1 | Introduction | 1 to 3 | BB / PPT | 1 | 1 | | 2 |
| 2 | Barriers & Types | 3 to 5 | BB / PPT | 2 | 1 | | 3 |
| 3 | 7C's of Communication | 5 to 7 | BB / PPT | 2 | 2 | | 4 |
| UNIT – II - WRITING | | | | | | | |
| 4 | Resume Etiquettes | 8 to 9 | BB | 3 | | | 3 |
| 5 | Resume Writing | 9 to 10 | BB | 3 | | | 3 |
| 6 | Report Writing | 10 to 14 | BB | 3 | | | 3 |
| UNIT – III - BODY LANGUAGE | | | | | | | |
| 7 | Introduction: Body Language | 15 to 16 | VIDEO | 2 | 1 | | 2 |
| 8 | Importance of Body Language in a Professional Atmosphere | 16 to 18 | VIDEO | 2 | 1 | | 3 |
| 9 | Do's & Don'ts: Body Language | 19 to 40 | VIDEO | 2 | 2 | | 4 |
| UNIT – IV – PRESENTATION | | | | | | | |

| Sl. No. | TOPIC | Course Material Page No | *Teaching Aids | Mode of Delivery | | | Cumulative Hours |
|--------------------------------|---|-------------------------|----------------|------------------|---|--|------------------|
| | | | | No of Hours | | | |
| 10 | Presentation & Its Types | 41 to 43 | VIDEO | 3 | | | 3 |
| 11 | Do's & Don'ts: Presentation Skills | 43 to 46 | VIDEO | 3 | | | 3 |
| 12 | Exercises on Presentation | 47 to 49 | VIDEO | 3 | | | 3 |
| UNIT – V – SENTENCE CORRECTION | | | | | | | |
| 13 | Correct Usage of Verbs & Adverbs – Definition – Rules. | 50 to 52 | BB / WS | 2 | 1 | | 3 |
| 14 | Correct Usage of Preposition: Definition – Rules. | 53 to 57 | BB / WS | 2 | 1 | | 3 |
| 15 | Correct Usage of Conjunction & Interjection: Definition – Rules | 57 to 61 | BB / WS | 2 | 1 | | 3 |
| TOTAL HOURS | | | | | | | 45 |

Course Material

1. **General English IV. A Compiled book, covering all the topics of the syllabus prepared by the Department of English.**

Reference Books

1. SrivasanHema. **Communication Skills**. Bangalore: Frank Brothers & Co. Ltd, 2004. Print.
2. Wren & Martin. **High School English Grammar & Composition**. India: S.Chand& Company Ltd, 1995. Print.
3. G.RadhakrishnaPillai. **Emerald English Grammar and Composition**. Bangalore: Emerald Publisher, 1998. Print.
4. Dr.K.Alex. **Soft Skills**. New Delhi: S.Chand& Company Ltd, 1997. Print.
5. Dr. Gupta C.B. **Business Correspondence & Reporting -Business Law, Business Correspondence & Reporting (CA-Foundation)**. New Delhi: Taxmann, 2018. Print.
6. A.P.Bhardwaj. **General English for Competitive Examinations**. New Delhi: Dorling Kindersley (India) Pvt. Ltd, 2013. Print.
7. Michael Swan. **Practical English Usage**. New Delhi: Oxford University Press,2008.Print

8. Randolph Quirck, Sidney Greenbaum, Geoffrey Leech, Jan Svartvik. **A Comprehensive Grammar of the English Language**. New Delhi: Dorling Kindersley (India) Pvt. Ltd, 2010. Print.
9. John Adair. **The Effective Communicator**. Noida: Anubha Printers. 2005. Print.

E – Books /Library INFLIBNET RESOURCES

<https://nlist.inflibnet.ac.in/search/Record/EBC483375>

<https://nlist.inflibnet.ac.in/search/Record/EBC481114>

<https://nlist.inflibnet.ac.in/search/Record/EBC1864716>

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|------------------------------------|-----------------|----------------------|--|
| 1. | Speaking Skill – Self Introduction | | 3 | HT |
| 2. | Reading Skill – Reading Activity | | 2 | HT |
| 3. | Speaking Skill – Assignment | | 1 | HB |

* Proposed Actions can be Assignments, Seminars, Peer Teaching, Industrial Visit, Others (if any)

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|--------------------|-------------------------------------|----------------------------|
| 1 | 1 | | Newspaper | Report writing Skills – Newspaper | 1 |
| 2 | 2 | | Video Presentation | Professional Skills – Body language | 1 |
| 3 | 3 | | Video Presentation | Professional Presentation Skills | 1 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|------------|---------------------------------|------------------------------------|
| 1. | I INTERNAL | Unit – I, II | 40% |

| | | | |
|----|---------------------------------|-----------------------|-------------|
| 2. | II INTERNAL | Unit – III, IV | 40% |
| 3. | SLIP / CLASS TEST | Unit – V | 20% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|--------------------------------|-------------------------|-----------|------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | C. Senthil Kumar | | |

| Approved by | | | |
|----------------|----------------------------|-----------|------|
| | Name | Signature | Date |
| HoD | R.Suganthi Hepzibha | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

Name of the Programme: B.Sc., Food Science and Processing Management

Programme Code:

FM1011 Title of the Course: Dairy, Meat and Poultry Processing

Course Code: 19BF403

Year / Semester: II / IV

Total No. of Students: 14

No of Credits: 4

Total No. of Contact Hours: 60

Course Teacher Name: Mrs. P. Deepalakshmi

Corresponding lab Paper: No

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery | | | Cumulative Hours |
|------------------|--|-------------------------------|----------------|------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Collection, Testing quality, Cooling, Storage and Transportation of liquid milk | T1, 105-130 | BB | 2 | | | 12 |
| 2. | Types of milk - Whole, Standardized, Toned, Double-toned, Skim & Condensed milk | | BB | 2 | | | |
| 3. | Ice cream, Milk powder, Recombined, Reconstituted and Flavored milk | | BB | 2 | | | |
| 4. | Detection of adulteration | W1 | BB/V | 3 | | | |
| 5. | Factors for FSSAI standard dairy laws | | BB | 2 | | | |
| 6. | Revision / Test / Quiz | | | | 1 | | |
| UNIT – II | | | | | | | |
| 7. | Standardization and/or Processing (Chilling, Pasteurization, and UHT processing) | W2 | BB | 3 | | | 12 |
| 8. | Homogenization, Sterilization | | BB | 2 | | | |
| 9. | Storage, Packaging and Distribution of liquid milk | | BB/V | 2 | | | |
| 10. | Fermented milk products-Cheese, Butter | T1,128 | BB | 2 | | | |
| 11. | Ghee, Paneer | | BB | 2 | | | |

| | | | | | | | |
|--------------------|--|-------------|------------|------|---|---|-----------|
| 12. | Revision / Test / Quiz | | | | 1 | | |
| UNIT – III | | | | | | | |
| 13. | Classification, Ante-mortem examination of meat animals | W3 | BB | 1 | | - | 12 |
| 14. | Scientific techniques of Slaughtering, Dressing, Deboning | | BB/V | 2 | | | |
| 15. | Post-mortem Inspection, Storage, Tenderization, Ageing, Grades and Cuts | T1, 155-160 | BB | 2 | | | |
| 16. | Packaging, Cured meat products, Sausages | | BB/V | 2 | | | |
| 17. | By-products, Frozen and canned meat products | | BB | 2 | | | |
| 18. | Meat plant hygiene- GMP and HACCP | W3 | BB | 2 | | | |
| 19. | Revision / Test / Quiz | | | | | | |
| UNIT – IV | | | | | | | |
| 20. | Structure, Composition, Nutritive value and Functional characteristics of eggs | T2,131-142 | BB/V | 2 | | - | 12 |
| 21. | Evaluation of egg quality - Floating test, White index, Colour index, Yolk color fan, Haugh unit evaluation in egg | | BB | 3 | | | |
| 22. | Formation, Grading, Spoilage, Storage and Transportation of whole eggs | | BB | 2 | | | |
| 23. | Processing of eggs for liquid products (White, yolk and Whole egg) | T2, 143-152 | BB/V | 2 | | | |
| 24. | Solid products (Albumen, Whole egg powder) for preservation through Freezing & Drying | | BB | 2 | | | |
| 25. | Revision / Test / Quiz | | | | 1 | | |
| UNIT – V | | | | | | | |
| 26. | Classification, Pre-slaughter care and consideration | W4 | BB | 2 | | - | 12 |
| 27. | Operations in preparation of dressed poultry, Poultry cuts | | BB/V | 2 | | | |
| 28. | Quality and safety considerations | | BB | 2 | | | |
| 29. | Commercial value of poultry, Utilization of by-products | | BB | 3 | | | |
| 30. | Preservation of Poultry meat and Storage | | T2,166-168 | BB/V | | | |
| 31. | Revision / Test / Quiz | | BB | | | | |
| TOTAL HOURS | | | | | | | 60 |

Text Book

| | |
|----|--|
| T1 | Goyal, A.A. (2005). “ <i>Processing technologies for Milk and Milk products</i> ”, Apple Academic Press. |
| T2 | Srilakshmi B, (2003). “ <i>Food Science</i> ”, New Age International Publishers (India). |

Reference Books

| | |
|----|---|
| R1 | Y.H. Hui. (2012). “ <i>Handbook of Meat and Meat Processing</i> ”, CRC Press. |
| R2 | |

Web Resources

| | |
|----|---|
| W1 | http://egyankosh.ac.in/handle/123456789/650 |
| W2 | https://educationdunia.com/page/bpvi-013-milk-processing-and-packaging |
| W3 | http://www.egyankosh.ac.in/handle/123456789/654 |
| W4 | http://www.egyankosh.ac.in/handle/123456789/10743 |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://epgp.inflibnet.ac.in/Home/ViewSubject,catid=444 |
| E2 | https://www.pdfdrive.com/food-science-books.html |

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---|-----------------|----------------------|--|
| 1. | Modern Processing operations for Flesh foods | Assignment | 2 | HB |
| 2. | Dairy, Meat and Poultry uses in Food Industry | Peer Teaching | 2 | HT |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| SL.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|------------------------|----------------------------|
| 1 | I | Lecture | PPT | Grading of Flesh Foods | 2 |

| | | | | | |
|---|----|--|-------|------------------------------------|---|
| | | | | | |
| 2 | II | | Video | Processing Unit in Food Industries | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|--------------------------|-------------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – 1-5 | 20% |
| 2. | I INTERNAL | Unit - I, II, III (upto Cuts) | 50% |
| 3. | II INTERNAL | Unit – III (from Packaging) , IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|--------------------------------|--------------------|-----------|------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / In-charge | Mrs.P.Deepalakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

| Approved by | | | |
|-----------------------|----------------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R. Sujatha | | |

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

Name of the Programme: Food Science and Processing Management

Programme Code: FM1011

Title of the Course : Fish and Seafood Processing

Course Code :

19BF404 Year / Semester

: II/IV Total No. of Students

: 14

No of Credits : 4

Total No. of Contact Hours : 60

Course Teacher Name: M.Venkata Subbulakshmi

Corresponding lab Paper : No

| Sl. No. | TOPIC | Reference / Text Book, Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|---|--------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Classification of fish and sea foods, Basic physiology of fish, related to individual species | R2, 169-179 | BB | 2 | 2 | | 12 |
| 2. | Chemical composition and Nutritive value of sea foods with a focus on fatty acids | | BB | 2 | | | |
| 3. | Nutrition and commercial importance of sea foods | R4,27-38 | BB | 2 | | | |
| 4. | Selection of fish | | BB | 2 | | | |
| 5. | Storage and preservation of fish. | R4, 33-37 | BB | 2 | | | |
| 6. | Revision / Test / Quiz | | | | | | |
| UNIT – II | | | | | | | |

| | | | | | | | |
|-------------------|--|-------------|----|---|---|---|----|
| 7. | Sea food Processing | W2 | BB | 3 | 1 | - | 12 |
| 8. | Preliminary Processing of sea foods | R4 61-68 | BB | 3 | | | |
| 9. | Fish shelf life extension processing | R4 25-32 | BB | 1 | | | |
| 10. | Mechanical separation. Reconstituted meat production, Use of modified atmosphere (CO ₂ , N ₂ , O ₂). | | BB | 2 | | | |
| 11. | Spoilage and microbial contamination. | R4 32-33 | BB | 2 | | | |
| 12. | Revision / Test / Quiz | | | | | | |
| UNIT – III | | | | | | | |
| 13. | Introduction, Importance of Value added fish products | T1, 217-250 | BB | 2 | 2 | - | 12 |
| 14. | Fish marinades, Fish cutlet, Fish wafers, Fish sausage, Fish ball, Fish finger, Fish momos | | BB | 2 | | | |
| 15. | Fish Protein Concentrate, Fish soup powder, Dried prawn pulp, Masmin flakes, fish surimi, fish pickle | | BB | 2 | | | |
| 16. | Byproducts of fish - Chitin and chitosan, Shrimp extract, | | BB | 2 | | | |
| 17. | Fish meal, Fish body oil, Pearl essence, Isinglass, Fish silage. | | BB | 2 | | | |
| 18. | Revision / Test / Quiz | | | | | | |
| UNIT – IV | | | | | | | |
| 19. | The occurrence of mercury, lead, cadmium and arsenic. | T1, 23-35 | BB | 2 | 1 | - | 12 |
| 20. | PCBs, dioxins, PAHs, OCPs, nitroso compounds. | | BB | 2 | | | |
| 21. | Potential health hazards and risks related to sea foods. | | BB | 2 | | | |
| 22. | Post mortem changes in fish and other sea foods. | | BB | 2 | | | |
| 23. | Cold Storage of sea foods. | | BB | 3 | | | |
| 24. | Revision / Test / Quiz | | | | | | |
| UNIT – V | | | | | | | |

| | | | | | | | |
|-----|--|----|----|---|---|---|----|
| 25. | Quality Standards for Fish and Fishery Products | W1 | BB | 2 | 2 | | 12 |
| 26. | Determination of total quality indicators and quality characteristics. | | BB | 2 | | | |
| 27. | Rating quality of the fish- legislative requirements. | | BB | 3 | | | |
| 28. | FSSAI Regulations | W3 | BB | 3 | | | |
| 29. | Revision / Test / Quiz | | | | | - | |
| 30. | Total | | | | | | 60 |

Text Book

| | |
|----|---|
| T1 | Venugopal. V. (2006).” <i>Sea food Processing</i> ”, CRC Taylor and Francis Publishing. |
|----|---|

Reference Books

| | |
|----|--|
| R1 | Nancy George and Neha S. Charan, “ <i>Fish Processing</i> ”, Harmonious Books Publishing Company. |
| R2 | Srilakshmi, B. (2010). “ <i>Food Science</i> ”, New Age International (p) Ltd, Chennai. |
| R3 | Handbook of Fisheries and Aquaculture. IGNOU. |
| R4 | Handbook of Packaging and Value Additon of Fishery Products ., IGNOU |
| R5 | Frazier W., (1995)., “ <i>Food Microbiology</i> ”, New Delhi, India: Tata McGraw Hill Publishing Company Ltd |

Web Resources

| | |
|----|---|
| W1 | https://www.notesonzoology.com/phylum-chordata/fishes/economic-importance-of-fish-vertebrates-chordata-zoology/8038 |
| W2 | file:///C:/Users/venim/Downloads/AREPORTONSHRIMPANDPRAWNFISHERIES.pdf |
| W3 | National and international quality standards for fish and fishery products.pdf |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://www.researchgate.net/publication/307584195_A_REPORT_ON_SHRIMP_AND_PRAWN_FISHERIES/link/57cabf2208ae3ac722b1e77d/download |
|----|---|

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|--|-----------------|----------------------|--|
| 1. | Different Types of Freezing Techniques | Assignment | 1 | HB |
| 2. | Value added Fish Products | Assignment | 2 | HT |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| SLNO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|------|--------|------------------|---------------|--|----------------------------|
| 1 | I | Lecture | PPT | Different types of Freezing Methods | 1 |
| 2 | II | | Audio- Visual | Various Packaging Methods for fish and Sea foods | 1 |
| 3 | | | | | |
| 4 | | | | | |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|-------------------|--|------------------------------------|
| 1. | SLIP / CLASS TEST | UNIT 1 | 20% |
| 2. | I INTERNAL | UNIT - I, II, III(Introduction, Importance of Value added fish products) | 50% |

| | | | |
|----|-----------------------|--|------|
| 3. | II INTERNAL | UNIT - III, IV, V(Value added Products) | 50% |
| 4. | Summative Examination | ALL FIVE UNITS | 100% |

| Designation | Prepared by | | |
|--------------------------------|----------------|-----------|------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | A.Sona | | |
| Programme Coordinator | P.Deepalakshmi | | |

| Approved by | | | |
|----------------|--------------|-----------|------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

| | |
|--|--|
| Name of the Programme : B.Sc Food Science and Processing Management | Programme Code : FM1011 |
| Course Name : Basic and Therapeutic Nutrition | Course Code : 19BF405 |
| Year / Semester : II / IV | Total No. of Students : 14 |
| No of Credits : 4 | Total No. of Contact Hours : 60 |
| Course Teacher Name : Ms. A.Sona | Corresponding lab Paper : Yes |

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-----------------|---|-------------------------------|----------------|---------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Syllabus introduction | | BB | 1 | | | 14 |
| 2. | Basic principles and factors influencing of meal planning | T1, 19 | BB | 1 | | | |
| 3. | Nutritional requirements during-pregnancy | T1,147 | BB | 2 | - | - | |
| 4. | Nutritional requirements during- lactation | T1,171 | BB | 2 | | | |
| 5. | Nutritional requirements during- infancy | T1,54 | BB | 2 | | | |
| 6. | Nutritional requirements during- preschool | T1,84 | BB | 1 | | | |
| 7. | Nutritional requirements during- school going | T1,117 | BB | 2 | | | |
| 8. | Nutritional requirements during- adolescent | T1,130 | BB | 2 | | | |
| 9. | Nutritional requirements during- adolescent old age. | T1, 186 | BB | 1 | | | |

| UNIT – II | | | | | | | |
|------------|--|--------|----|---|---|---|----|
| 10. | Purpose and principles of therapeutic diets | T1,248 | BB | 1 | - | - | 13 |
| 11. | Classification of therapeutic diets - Routine hospital diet, | T1,249 | BB | 1 | | | |
| 12. | Special feeding methods – enteral feeding | T1,251 | BB | 2 | | | |
| 13. | Tube feeding | T1,253 | BB | 2 | | | |
| 14. | Parental nutrition. | T1,255 | BB | 2 | | | |
| 15. | Causes, symptoms and Nutritional management in typhoid | T1,279 | BB | 1 | | | |
| 16. | Causes, symptoms and Nutritional management in influenza, | T1,280 | BB | 1 | | | |
| 17. | Causes, symptoms and Nutritional management in malaria. | T1,280 | BB | 1 | | | |
| 18. | Causes, symptoms and Nutritional management in tuberculosis. | T1,281 | BB | 2 | | | |
| UNIT – III | | | | | | | |
| 19. | Causes, symptoms and Nutritional management in obesity | T1,290 | BB | 5 | - | - | 10 |
| 20. | Causes, symptoms and Nutritional management in underweight. | T1,315 | BB | 5 | | | |
| UNIT – IV | | | | | | | |
| 21. | Causes, symptoms and Nutritional management of hypertension | T1,345 | BB | 5 | - | - | 11 |
| 22. | Causes, symptoms and Nutritional management of Diabetes mellitus | T1,399 | BB | 6 | | | |
| UNIT – V | | | | | | | |
| 23. | Causes, symptoms and Nutritional management in nephrosis | T1,442 | BB | 2 | - | - | 12 |
| 24. | Causes, symptoms and Nutritional management in renal failure | T1,445 | BB | 2 | | | |
| 25. | Causes, symptoms and Nutritional management in PEM, | T1,84 | BB | 2 | | | |
| 26. | Causes, symptoms and Nutritional management in Anaemia, | T1,207 | BB | 2 | | | |

| | | | | | | | |
|--------------------|---|----|----|---|--|--|----|
| 27. | Causes, symptoms and Nutritional management in IDD, | W2 | BB | 2 | | | |
| 28. | Causes, symptoms and Nutritional management in Vitamin A. | W2 | BB | 2 | | | |
| TOTAL HOURS | | | | | | | 60 |

Text Book

| | |
|----|--|
| T1 | B. Srilakshmi, “ <i>Dietetics</i> ”, 8 th edition(2019), New Age International Publishers |
|----|--|

Reference Books

| | |
|----|--|
| R1 | Krause, MV and Mahan, LK (1986), “ <i>Food, Nutrition and Diet therapy</i> ”, London: Alan R. Liss, Saunders Co. |
| R2 | Swaminathan M (1985). “ <i>Essential of food and Nutrition</i> ”, Vols. I & II. Madras: Ganesh & CO. |

Web Resources

| | |
|----|---|
| W1 | https://www.medicalnewstoday.com/articles/5847 |
| W2 | http://www.ignouhelp.in/ignou-mscdfsm-study-material/ |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|--|
| E1 | Marjorie R Freedman, Janet King, Eileen Kennedy “ <i>Popular Diets: A Scientific Review</i> ” OBESITY RESEARCH Vol. 9 (2014) |
|----|--|

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---|-----------------|----------------------|--|
| 1. | Classification of underweight and obesity | Peer Teaching | 1 | HT |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|------------------------------|----------------------------|
| 1 | W1, E1 | Lecture | PPT | An overview of Special Diets | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|--------------------------|-----------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – I | 20% |
| 2. | I INTERNAL | Unit – I, II, III (up to obesity) | 50% |
| 3. | II INTERNAL | Unit – III (underweight) , IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|--------------------------------|----------------|-----------|------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | A.Sona | | |
| Programme Coordinator | P.Deepalakshmi | | |

| Approved by | | | |
|-------------|-----------|-----------|------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |

| | | | |
|-----------------------|---------------------|--|--|
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

Name of the Programme: B.Sc., Food Science and Processing Management

Course Code : 19BF407

Title of the Course : Basic and Therapeutic Nutrition Practical

Year / Semester : II /

IV No of Credits : 2

Total No. of Students: 14

Course Teacher Name: Mrs. P. Deepalakshmi

Total No. of Contact Hours: 60

| Sl. No. | Week No. | Name of the Experiment | Page No in the Lab Manual | No. of Hours | Cumulative Hours |
|----------------------------|----------|--|---------------------------|--------------|------------------|
| 1 | I | Planning and preparation of Therapeutic and Modified diets | | 6 | 12 |
| | | a. Soft diet | | | |
| | | b. Fluid diet | | | |
| 2 | II | c. Bland diet | | | |
| | | d. High protein diet | | 6 | |
| | | e. High fibre diet | | | |
| | | f. Low fibre diet | | | |
| g. Calorie restricted diet | | | | | |
| 3 | III | Planning and preparing a meal for a. Low income family | | 4 | |
| 4 | IV | b. Middle income family | | 4 | 12 |

| | | | | | |
|-----------------------------|------|---|--|---|----|
| 5 | V | c. High income family | | 4 | |
| 6 | VI | Normal diet-Plan a day's menu with Reference Man and Women | | 6 | |
| 7 | VII | Pregnancy and Lactation (RDA) | | 6 | 12 |
| 8 | VIII | Planning and preparation of therapeutic and modified diets. a. Deficiency disorders (i) PEM (ii) Vitamin – A deficiency (iii) Iron deficiency | | 6 | 12 |
| 9 | IX | b. Febrile diseases Typhoid, Tuberculosis c. Obesity and Underweight | | 3 | |
| 10 | X | d. Diabetes mellitus e. Cardiac diseases- Hypertension f. Renal disorders – Nephrosis, Renal failure | | 3 | |
| TOTAL NO OF HOURS:60 | | | | | |

Gap in the Syllabus

| SL. NO | Name of the Topic | No of Hours Allotted |
|--------|-------------------------------|----------------------|
| 1. | Preparation of diet for Burns | 2 |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS

| SLNO | Topic | Total No of Hours Allotted |
|------|---|----------------------------|
| 1 | Menu planning for Preshool, School going and Adolescent age groups. | 4 |

| Designation | Prepared by | | |
|-------------------------------|--------------------|-----------|------|
| Assistant Professor | Name | Signature | Date |
| Course Coordinator / Incharge | Mrs.P.Deepalakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

| Approved by | | | |
|----------------|---------------|-----------|------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr. R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

Name of the Programme: B.Sc., Food Science and Processing Management

Course Code : 19BF410

Title of the Course : Food Preservation

Year / Semester : II / IV

No of Credits : 2

Total No. of Students: 62

Course Teacher Name: Mrs. P. Deepalakshmi

Total No. of Contact Hours: 30

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|-----------------|------------------------------|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Food preservation | R2, 121 | BB | 1 | | | 8 |
| 2. | Food Processing | R2 | BB | 1 | | | |
| 3. | Aims of food preservation | W3 | BB | 1 | | | |
| 4. | Historical developments | W4 | BB | 1 | | | |
| 5. | Current developments | W4 | BB | 1 | | | |
| 6. | Principles of preservation | T1, 28 | BB/V | 1 | | | |
| 7. | Methods of food preservation | R2,363 | BB/V | 1 | | | |

| | | | | | | | |
|-------------------|--|-----------|------|---|---|---|---|
| 8. | Revision/Test/Quiz | | | | 1 | | |
| UNIT – II | | | | | | | |
| 9. | Methods of drying – Sun drying | T2, 88 | BB/V | 1 | | - | 4 |
| 10. | Mechanical drying | T2, 85 | BB/V | 1 | | | |
| 11. | Dried Products | T2, 71 | BB/V | 1 | | | |
| 12. | Revision/Test/Quiz | T2, 462 | BB | | 1 | | |
| UNIT – III | | | | | | | |
| 13. | High Temperature – Blanching, Pasteurization | T2, 26,48 | BB | 1 | | - | 8 |
| 14. | Thermal processing –Sterilization | T2, 53 | BB | 1 | | | |
| 15. | Thermal processing –Canning, Bottling | W2 | BB | 1 | | | |
| 16. | Dielectric heating | W2 | BB | 1 | | | |
| 17. | Low Temperature - Refrigeration | T1, 128 | BB | 1 | | | |
| 18. | Freezing – Methods of freezing | T2, 125 | BB | 1 | | | |
| 19. | Changes during freezing | T1, 174 | BB | 1 | | | |
| 20. | Revision/Test/Quiz | | | | 1 | | |
| UNIT – IV | | | | | | | |
| 21. | Natural agents in food preservation and their advantages | W2 | BB | 1 | | - | 6 |
| 22. | Salt and Sugar | W2 | BB | 1 | | | |
| 23. | Preparation of Jam, Jelly | W2 | BB/V | 1 | | | |
| 24. | Pickle, Murabbas | W2 | BB/V | 1 | | | |
| 25. | Honey amla | W2 | BB/V | 1 | | | |
| 26. | Revision/Test/Quiz | | | | 1 | | |
| UNIT – V | | | | | | | |

| | | | | | | | |
|--------------------------|--------------------------|---------|----|---|--|---|-----------|
| 27. | Class II preservatives | TI 362- | BB | 1 | | - | 4 |
| 28. | Sodium benzoate, KMS | | BB | 1 | | | |
| 29. | Acetic acid, Citric acid | | BB | 1 | | | |
| 30. | Additives Types and Uses | | BB | 1 | | | |
| Total No.of Hours | | | | | | | 30 |

Text Book

| | |
|----|---|
| T1 | Potter NH, "Food Science", CBS Publication (New Delhi) |
| T2 | Brennan. (2009). " <i>Food Processing Handbook</i> ", Weinheim: Wiley - VCH Verlag G & CO |

Reference Books

| | |
|----|--|
| R1 | Fellows P.J (2000). <i>Food Processing Technology – Principles and practice</i> , Florida, USA: CRC Press LLC. |
| R2 | Srilakshmi, B. (2010). " <i>Food Science</i> ", New Age International. (p) Ltd, Chennai. |

Web Resources

| | |
|----|---|
| W1 | https://www.slideshare.net/pallvidhotra/hurdle-technology |
| W2 | http://www.ignouhelp.in/ignou-mscdfsm-study-material/ |

E – Books /Library INELIBNET RESOURCES

| | |
|----|--|
| E1 | Anterpreet Kaur Arora <i>et al</i> , "Is chemical safety to food hazardous? – Dangers of food preservatives", J Indian Acad Forensic Med, 31(4) (2010) |
|----|--|

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|---------------|-----------------------------------|------------------------|-----------------------------|---|
| 1. | Modern food processing techniques | PPT | 2 | HT |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| SL.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|--------------|---------------|-------------------------|----------------------|--------------------------------|-----------------------------------|
| 1 | I | Lecture | PPT | Preservation by modern methods | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|----------------|--------------------------|---|---|
| 1. | SLIP / CLASS TEST | Unit – I | 20% |
| 2. | I INTERNAL | Unit – I, II, III (up to Dielectric heating) | 50% |
| 3. | II INTERNAL | Unit – III (Low Temperature) , IV, V | 50% |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|---------------------------------------|---------------------------|------------------|-------------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / In-charge | Mrs.P.Deepalakshmi | | |
| Programme Coordinator | Mrs.P.Deepalakshmi | | |

| Approved by | | | |
|-----------------------|---------------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms. A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

**SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE
DEPARTMENT OF COMMERCE (B&I)
COURSE PLAN FOR THE ACADEMIC YEAR -2020-2021**

Course Name: Consumer Affairs

Faculty: Dr.A.KODIYARASU (1855)

| Class : II B.Sc.,(FSPM) | | | Even Semester | |
|--------------------------------|-------------|----------------|---|--------------|
| Course code | Unit | Chapter | Chapter Name | Hours |
| 19CO405 | I | 1 | Concept of Consumer | 1 |
| 19CO405 | I | 2 | Nature of markets: Concept of Price in Retail and Wholesale, | 1 |
| 19CO405 | I | 3 | Maximum Retail Price (MRP) | 1 |
| 19CO405 | I | 4 | Fair Price | |
| 19CO405 | I | 5 | GST | 1 |
| 19CO405 | I | 6 | labeling and packaging along with relevant laws | 1 |
| 19CO405 | I | 7 | Consumer buying process | 1 |
| 19CO405 | II | 1 | Consumer Rights and unfair trade practices | 1 |
| 19CO405 | II | 2 | Advisory Bodies: Consumer Protection Councils at the Central, State and District Levels | 2 |
| 19CO405 | II | 3 | Adjudicatory Bodies: District Forums | 1 |
| 19CO405 | II | 4 | State Commissions | 1 |
| 19CO405 | II | 5 | National Commission | 1 |
| 19CO405 | III | 1 | Who can file a complaint | 1 |
| 19CO405 | III | 2 | Grounds of filing a complaint; | 1 |
| 19CO405 | III | 3 | Limitation period | 1 |
| 19CO405 | III | 4 | Procedure for filing and hearing of a complaint; | |

| | | | | |
|---------|-----|---|---|-----------|
| 19CO405 | III | 5 | Disposal of cases | 1 |
| 19CO405 | III | 6 | Relief/ Remedy available; | 1 |
| 19CO405 | III | 7 | Appeal, Offences and penalties | 1 |
| 19CO405 | IV | 1 | Evolution of Consumer Movement in India | 1 |
| 19CO405 | IV | 2 | Formation of consumer organizations | 1 |
| 19CO405 | IV | 3 | role in consumer protection | 1 |
| 19CO405 | IV | 4 | Misleading Advertisements | 1 |
| 19CO405 | IV | 5 | sustainable consumer National Consumer Helpline | 1 |
| 19CO405 | IV | 6 | Comparative Product testing Sustainable consumption and energy ratings | 1 |
| 19CO405 | IV | 7 | | |
| 19CO405 | V | 1 | Voluntary and Mandatory standards | 1 |
| 19CO405 | V | 2 | Role of BIS | 1 |
| 19CO405 | V | 3 | Indian Standards Mark (ISI) | 1 |
| 19CO405 | V | 4 | Ag-mark, Hallmarking | 1 |
| 19CO405 | V | 5 | Licensing and Surveillance; | 1 |
| 19CO405 | V | 6 | Role of International Standards: ISO an Overview | 1 |
| | | | Total | 30 |

Text book:

1. Khanna, Sri Ram, Savita Hanspal, Sheetal Kapoor, and H.K. Awasthi. (2007) Consumer Affairs, Universities Press.

Suggested Readings:

1. Choudhary, (2005). Consumer Protection Law Provisions and Procedure, Deep and Deep Publications Pvt. Ltd.

2. G.Ganesan and M.Sumathy. (2012). Globalization and Consumerism: Issues and Challenges, Regal Publications
3. Suresh Misra and Sapna Chadah (2012). Consumer Protection in India: Issues and Concerns, IIPA, New Delhi
4. Rajyalaxmi Rao (2012), Consumer is King, Universal Law Publishing Company
5. Girimaji, (2002). Consumer Right for Everyone Penguin Books.
6. E-books : www.consumereducation.in
7. Empowering Consumers e-book, www.consumeraffairs.nic.in
8. e-book, www.bis.org

The Consumer Protection Act, 1986 and its later versions

Gaps in the Syllabus

| Sl. No. | Name of the Topic | Proposed Action | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|---------|-------------------|-----------------|----------------------|--|
| 1. | | | | |
| 2. | | | | |

* *Proposed Actions can be Assignments, Seminars, Peer Teaching, Industrial Visit, Others (if any)*

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)- Nil

| Sl.No. | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No. of Hours Allotted |
|--------|--------|------------------|---------------|----------------|-----------------------------|
| 1 | | | | | |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|--------------------|--------------------------|---------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – I | 20 |
| 2. | I INTERNAL | Unit – I, II, III | 50 |
| 3. | II INTERNAL | Unit – III, IV, V | 50 |
| 4. | End Semester Examination | Unit I to V | 100 |
| Designation | | Prepared by | |
| | | Name | Signature |
| | | Date | |

| | | | |
|---------------------------------------|-----------------------|--|--|
| Course Coordinator / In-charge | Mr.Kodiarasu | | |
| Programme Coordinator | Mrs.Padmavathy | | |

| Approved by | | | |
|-----------------------|-----------------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Mrs.Padmavathy | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (/EVEN SEMESTER)

Name of the Programme : B.Sc Food Science and Processing Management

Programme Code : FM1011

Course Name : Evaluation of Food Quality

Course Code : 19BF408

Year / Semester : II / IV

Total No. of Students 14

No of Credits : 2

Total No. of Contact Hours 30

Course Teacher(s) Name : Ms. A.Sona

Corresponding lab Paper : No

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|--|-------------------------------|----------------|---------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Introduction | | BB | 1 | | | 6 |
| 2. | Sensory characteristics of food – Appearance, Color, Flavor, Texture | T1 309 | BB | 2 | 1 | - | |
| 3. | Psychological factors | T1 311 | BB | 2 | | | |
| UNIT – II | | | | | | | |
| 4. | Reasons for testing food quality | T1 311 | BB | 1 | | | 6 |
| 5. | Trained panel members | T1 312 | BB | 1 | | | |
| 6. | Testing laboratories | T1 312 | BB | 1 | | | |
| 7. | Preparation of samples | T1 313 | BB | 1 | | | |

| | | | | | | | |
|--------------------|--|--------|----|---|---|---|----|
| 8. | Techniques of smelling and tasting, Testing time, Design of experiment | T1 313 | BB | 1 | | | |
| 9. | Evaluation card | T1 314 | BB | 1 | | | |
| UNIT – III | | | | | | | |
| 10. | Difference test | T1 314 | BB | 1 | | | 6 |
| 11. | Rating test | T1 317 | BB | 2 | 1 | | |
| 12. | Sensitivity test | T1 323 | BB | 1 | | - | |
| 13. | Descriptive test | T1 324 | BB | 1 | | | |
| UNIT – IV | | | | | | | |
| 14. | Advantages and Disadvantages of objective evaluation | T1 326 | BB | 1 | | | 6 |
| 15. | Tests used for objective evaluation – Chemical, Physicochemical | T1 327 | BB | 2 | | - | |
| 16. | Microscopic and Physical | T1 329 | BB | 2 | | - | |
| 17. | Basic guidelines | T1 327 | BB | 1 | | | |
| UNIT – V | | | | | | | |
| 18. | Instruments used for liquids and semisolids | T1 332 | BB | 2 | | | 6 |
| 19. | Instruments used for Solids | T1 334 | BB | 2 | | - | |
| 20. | Importance of sensory evaluation in the food industry | W2 | BB | 2 | | | |
| TOTAL HOURS | | | | | | | 30 |

Text Book

| | |
|----|--|
| T1 | Srilakshmi, B. (2010). “ <i>Food Science</i> ”, New Age International. (p) Ltd, Chennai. |
|----|--|

Reference Books

| | |
|----|--|
| R1 | Norman N. Potter (2012) “ <i>Food Science</i> ”, International Thomson Publishing, U.S |
|----|--|

Web Resources

| | |
|----|---|
| W1 | https://www.slideshare.net/natrajdurgannavar/sensory-evaluation-of-food |
| W2 | http://ecoursesonline.iasri.res.in/mod/page/view.php?id=6033 |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://epgp.inflibnet.ac.in/ |
|----|---|

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---|-----------------|----------------------|--|
| 1. | Importance of sensory evaluation in food industry | Peer teaching | 2 | HT |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|-------|--------|------------------|---------------|------------------------|----------------------------|
| 1 | W1, E1 | Lecture | PPT | Score card preparation | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|---------|-------------------|---------------------------------------|------------------------------------|
| 1. | SLIP / CLASS TEST | Unit – I | 20% |
| 2. | I INTERNAL | Unit – I, II, III (up to Rating test) | 50% |
| 3. | II INTERNAL | Unit – III (from Sensitivity test), | 50% |

| | | | |
|----|--------------------------|-------------|------|
| | | IV,V | |
| 4. | End Semester Examination | Unit I to V | 100% |

| Designation | Prepared by | | |
|--------------------------------|----------------|-----------|------|
| | Name | Signature | Date |
| Course Coordinator / In-charge | A.Sona | | |
| Programme Coordinator | P.Deepalakshmi | | |

| Approved by | | | |
|----------------|--------------|-----------|------|
| | Name | Signature | Date |
| HoD | A.Sona | | |
| Dean Academics | Dr.S.Priya | | |
| Principal | Dr.R.Sujatha | | |

SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

COURSE PLAN – 2020 – 21 (EVEN SEMESTER)

Name of the Programme: Food Science and Processing Management

Programme Code : FM1011

Title of the Course: Food Ethics

Course Code : 19BF409

Year / Semester : II/IV

Total No. of Students : 14

No of Credits : 2

Total No. of Contact Hours : 30

Course Teacher Name: Mrs.M .Venkata Subbulakshmi

Corresponding lab Paper : No

| Sl. No. | TOPIC | Reference / Text Book_Page No | *Teaching Aids | Mode of Delivery No of Hours | | | Cumulative Hours |
|------------------|--|-------------------------------|----------------|------------------------------|---|---|------------------|
| | | | | L | T | P | |
| UNIT – I | | | | | | | |
| 1. | Fundamentals and importance of ethics in Food science | T1, 1-18 | BB | 2 | 1 | | 6 |
| 2. | The virtue ethics model for the person | | BB | 1 | | | |
| 3. | The four classical virtues, Application of the virtues | | BB | 2 | | | |
| 4. | Revision / Test / Quiz | | | | | - | |
| UNIT – II | | | | | | | |
| 5. | Ethical theories and Principles | R1, 39-53 | BB | 2 | | - | |
| 6. | Ethics and the food industry, | | BB | 1 | | | |

| | | | | | | | |
|-------------------|--|------------|----|---|---|---|----|
| 7. | The Ethical Matrix, The ethical matrix as an ethical map | | BB | 2 | 1 | | 6 |
| 8. | Revision / Test / Quiz | | | | | | |
| UNIT – III | | | | | | | |
| 9. | Eating in between life and death | R1 3- 21 | BB | 1 | | | 6 |
| 10. | Social Meaning of the food, Food and ethics in history, | | BB | 2 | | | |
| 11. | Global hunger – Evils and reasons. | | BB | 2 | | | |
| 12. | Revision / Test / Quiz | | | 2 | | - | |
| UNIT – IV | | | | | | | |
| 13. | The History of Industrialization of Agriculture | R1, 61-89 | BB | 2 | | | 6 |
| 14. | Food ethics of the Consumers | | BB | 1 | | | |
| 15. | Animals as Food Producers - Five freedoms Sustainable food system | | BB | 2 | | | |
| 16. | Revision / Test / Quiz | | | 1 | | - | |
| UNIT – V | | | | | | | |
| 17. | Food Safety - Issues in Food safety, Code of ethics in Inspection. | T2, 82-90 | BB | 2 | | | 6 |
| 18. | Food Marketing and ethics - Applying ethics to food marketing. | T2 134-151 | BB | 2 | 2 | | |
| 19. | Revision / Test / Quiz | | | | | - | |
| 20. | Total | | | | | | 30 |

Text Book

| | |
|----|--|
| T1 | J.Peter C, C.R. J W& Sons. (2013). “ <i>Practical Ethics for Food Professionals</i> ”, Ethics in Research Education and the Workplace. |
| T2 | Ben mephan. (1996) “ <i>Food ethics</i> ”, 1 st edition, London. |

Reference Books

| | |
|----|--|
| R1 | Christian Coff. (2006). “ <i>The Taste For Ethics</i> ”, Demark. |
|----|--|

Web Resources

| | |
|----|---|
| W1 | https://www.foodethicscouncil.org/learn/food-ethics/what-is-food-ethics/ |
| W2 | https://www.researchgate.net/publication/40110417_Ethics_of_Food_Production_and_Consumption |
| W3 | https://experiencelife.com/article/the-ethics-of-eating/ |
| W4 | https://drive.google.com/file/d/1emLPBQZR3GsbTYCCBj2ZMOBJdFxhr-Sl/view |

E – Books /Library INFLIBNET RESOURCES

| | |
|----|---|
| E1 | https://ecochallenge.org/media/documents/Hungry_for_Change_-_First_Session.pdf |
|----|---|

Gaps in the Syllabus

| SL. NO | Name of the Topic | PROPOSED ACTION | No of Hours Allotted | Hours with in the Time Table (HT) / Hours beyond the Time Table (HB) |
|--------|---|-----------------|----------------------|--|
| 1. | Importance of food Ethics and Need of Food Ethics | Assignment | 1 | HT |

COURSE PLAN FOR CONTENT BEYOND SYLLABUS (TO MEET THE INDUSTRIAL NEEDS)

| Sl.NO | Module | Mode of Delivery | Teaching Aids | Planned Topics | Total No of Hours Allotted |
|--------------|---------------|-------------------------|----------------------|--|-----------------------------------|
| 1 | I | Lecture | Video | Introduction to food Ethics | 2 |
| 2 | 2 | Lecture | Peer teaching | Food Safety - Issues in Food safety, Code of ethics in Inspection. | 2 |

PORTION FOR EXAMINATION

| Sl. No. | Mode | Proposed Portions to be Covered | Proportion (Portion) in Percentage |
|----------------|-----------------------|--|---|
| 1. | SLIP / CLASS TEST | UNIT I | 20% |
| 2. | I INTERNAL | UNIT - I, II, III(Social Meaning of Food) | 50% |
| 3. | II INTERNAL | UNIT - III,(History of Food Ethics) IV, V | 50% |
| 4. | Summative Examination | ALL FIVE UNITS | 100% |

| Designation | Prepared by | | |
|---------------------------------------|--------------------------------|------------------|-------------|
| | Name | Signature | Date |
| Assistant Professor | | | |
| Course Coordinator / In-charge | M. Venkata Subbulakshmi | | |
| Programme Coordinator | P. Deepalakshmi | | |

| Approved by | | | |
|-----------------------|----------------------|------------------|-------------|
| | Name | Signature | Date |
| HoD | Ms.A.Sona | | |
| Dean Academics | Dr.S. Priya | | |
| Principal | Dr.R. Sujatha | | |

