DOS MINUES

Misch-Food Tech



Minutes of Board of Studies: M. Tech Food Processing Technology

Date: 25.07.2020

Minutes of Board of Studies (BOS) meeting of M.Tech Food Processing Technology held on 25-07-2020 at office Head of the department, Department of Chemical Engineering, VFSTR, Vadlamudi.

Agenda of the meeting:

1. To discuss and finalize structure and detailed syllabus for M.Tech Food Processing Technology applicable from 2020-21 admitted batch.

Members present:

| S.No | Name | Members | Signature |
|------|--|--------------------|------------------|
| 1. | Dr. M. Ramesh Naidu, Head, Department of Chemical Engineering, VFSTR | Chairman, BOS | Jamesh |
| 2. | Dr. Rama Chandra Pradhan, Professor and Head Department of Food Process Engineering, NIT Rourkela | Invited member | Dama P |
| 3. | Dr. Srinivas Maloo, Associate Professor and Head of the Department Food Technology, Osmania University | Invited member | Stinivas |
| 4. | Dr. Ch. V. V. Satyanarayana, Professor and Head of the School of Food Engineering, Bapatla | Invited member | Sollyones /7/201 |
| 5: | Dr. Sridevi Panyalaraju, Scientist, ANGRAU | Invited member | Bardeni. |
| 6. | Mr. Prashant Bagade, Principal Scientist and Head, NCML, Hyderabad | Invited member | Preshount |
| 7. | Dr. Payel Ghosh, Assistant Professor, Department of Chemical Engineering (Food Technology), VFSTR | Internal Member | Phot. |
| 8. | Dr. Sandeep Singh Rana, Assistant Professor, Department of Chemical Engineering (Food Technology), VFSTR | Internal Member | 2000 . |



| 9. | Mr. Rahul Kumar, Assistant Professor, Department of Chemical Engineering (Food Technology), VFSTR | Internal Member | Raher Kumar |
|-----|--|--------------------|----------------|
| 10. | Mr. Shiva Prasad D P, Assistant Professor, Department of Chemical Engineering (Food Technology), VFSTR | Internal Member | Slivar rasac [|
| 11. | Ms. Krishnaprabha, Assistant Professor, Department of Chemical Engineering (Food Technology), VFSTR | Internal Member | Hudy. |

Minutes of the BOS meeting

- 1. The chairman greeted all the BOS members.
- The chairman emphasized broad objectives of the proposed changes in the course structure of M.Tech Food Processing Technology.
- The chairman also elucidated in detail the suggestions and remarks communicated from various stakeholders.
- 4. The members of the BOS painstakingly observed the proposals of Department of Chemical Engineering in the light of suggestions made by experts and recommended a new course structure for M.Tech Food Processing Technology.

After the discussion it is resolved to:

- BoS members approved the revised curriculum (Structure, Syllabus and regulations) of M. Tech, Food Processing Technology and it follows Choice Based Credit System. Structure is provided in Appendix I.
- Major restructuring has taken place in the curriculum which is oriented towards
 Project based learning with inclusion of Mini, Societal-Centric projects and industry
 related projects.
- All the Courses in the Curriculum are designed to fall under either of the domains of employability or skill development. The mapping of the courses with employability or skill development is provided in Appendix II.
- 4. In all the courses of the revised curriculum (R20) substantial changes are made in the content. The percentage of change in the curriculum from R17 to R20 is 50%. The list of new courses provided in Appendix III.
- 5. Stakeholders feedback analyzed in CDMC is placed before the BoS and given utmost priority while designing the curriculum and their suggestions are implemented.

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APPENDIX – I Course Structure M.TECH FOOD PROCESSING TECHNOLOGY

I YEAR I SEMSTER

| Course Title | L | T | P | C |
|---------------------------------------|----|---|----|----|
| Food Microbiology | 3 | - | 2 | 4 |
| Food Chemistry and Nutrition | 3 | - | 2 | 4 |
| Food Safety and Quality Management | 3 | - | - | 3 |
| Fermented and Non-Fermented Beverages | 3 | - | - | 3 |
| Department Elective- 1 | 3 | - | - | 3 |
| Audit Course 1 | 1 | - | - | - |
| Minor Project | - | - | 4 | 2 |
| Total | 13 | - | 10 | 19 |

I YEAR II SEMSTER

| Course Title | L | T | P | C |
|--|----|---|---|----|
| Emerging Technologies in Food Processing | 3 | - | 2 | 4 |
| Advances in Food Engineering | 3 | - | 2 | 4 |
| Department Elective- 2 | 3 | - | - | 3 |
| Department Elective- 3 | 3 | - | - | 3 |
| Research Methodology & IPR | 2 | - | 2 | 2 |
| Audit Course 2 | 1 | - | - | - |
| Employment Orientation Program | 2 | - | - | 2 |
| Societal Centric/Industry Oriented Project | 2 | - | 2 | 2 |
| Total | 19 | - | 8 | 20 |



II YEAR I SEMSTER

| Course title | L | T | P | C |
|---|---|---|---|---|
| MOOCs Course- 1 (Inter disciplinary Nature) | 3 | - | | 3 |
| MOOCs Course- 2 (Inter disciplinary Nature) | 3 | - | | 3 |
| Total | 6 | - | - | 6 |

II YEAR II SEMSTER

| L | T | P | C |
|---|---|-----|----|
| | | 20 | 10 |
| | | 32 | 16 |
| | | 52 | 26 |
| | L | L T | |

L = Lecture;

T = Tutorial

P = Practical;

C = Credits

Total No. of Credits = 71

The courses that are highlighted denote implementation of 'Choice Based Credit System (CBCS)'



LIST OF ELECTIVE COURSES

| Sl. No. | Course Title | | | |
|------------|--|--|--|--|
| 1 | Advances in Dairy Technology | | | |
| 2 | Advances in Food Packaging | | | |
| 3 | Animal Products Processing | | | |
| 4 | Refrigeration and Cold Storage | | | |
| 5 | Nutraceuticals and Functional Food | | | |
| 6 | Spices and Plantation Crop Process Technology | | | |
| 7 | Industrial Biotechnology and Fermentation Technology | | | |
| 8 | Heat and Mass Transfer | | | |
| 9 | Plant layout and process Economics | | | |
| 10 | Advanced Food Engineering | | | |
| 11 | Fruits and Vegetable Processing | | | |
| 12 | Novel Separation Techniques | | | |
| 13 | Food Process Automation | | | |
| 14 | Food Quality Systems and Management | | | |

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DEPARTMENT OF CHEMICAL ENGINEERING APPENDIX II

 $List\ of\ courses\ that\ enable\ employability\ or\ entrepreneurship\ or\ skill\ development\ in$ $the\ R-20\ M.Tech-Food\ Processing\ Technology$

| SI .No | Year (Semester) | Core / Elective | Name of the Course | Activities with direct bearing on Employability/ Entrepreneurship/ Skill development |
|-----------|-----------------------------|-------------------------|---|--|
| 1 | First year (Semester I) | Core | Food Microbiology | Skill Development |
| 2 | First year (Semester I) | Core | Food Chemistry and Nutrition | Skill Development |
| 3 | First year (Semester I) | Core | Food Safety and Quality Management | Skill Development |
| 4 | First year (Semester I) | Core | Fermented and Non- Fermented Beverages | Skill Development |
| 5 | First year (Semester I) | Employability Skills | Audit Course 1 | Skill Development |
| 6 | First year (Semester I) | Core | Minor Project | Skill Development |
| 7 | First year (Semester I) | Core | Emerging Technologies in Food Processing | Employability |
| 8 | First year (Semester I) | Core | Advances in Food Engineering | Skill Development |
| 9 | First year (Semester II) | Core | Research Methodology & IPR | Skill Development |
| 10 | First year (Semester II) | Employability Skills | Audit Course 2 | Employability |
| 11 | First year (Semester II) | Employability Skills | Employment Orientation Program | Employability |
| 12 | First year (Semester II) | Employability Skills | Societal Centric/Industry Oriented Project | Employability |
| 13 | First year (Semester II) | Core | MOOCs Course- 1(Inter disciplinary Nature) | Skill Development |



| 14 | First year (Semester II) | Core | MOOCs Course- 2(Inter disciplinary Nature) | Skill Development |
|----|---|-------------------------|--|-------------------|
| 15 | Second year (Semester I) Employability Skills | | Project / Internship : phase 1 | Employability |
| 16 | second year (Semester II) | Employability Skills | Project / Internship : phase 2 | Employability |
| 17 | | | Food Quality Systems and Management | Employability |
| 18 | | | Advances in Dairy Technology | skill Development |
| 19 | | | Advances in Food Packaging | Skill Development |
| 20 | | | Animal Products Processing | Skill Development |
| 21 | | | Refrigeration and Cold Storage | Skill Development |
| 22 | | | Nutraceuticals and Functional Food | Skill Development |
| 23 | Pool of I | Electives | Spices and Plantation Crop Process Technology | Skill Development |
| 24 | | | Industrial Biotechnology and Fermentation Technology | Employability |
| 25 | | | Heat and Mass Transfer | Skill Development |
| 26 | | | Plant layout and process Economics | Skill Development |
| 27 | | | Advanced Food Engineering | Skill Development |
| 28 | | | Fruits and Vegetable Processing | Skill Development |
| 29 | | | Fundamentals of Microbiology | Skill Development |
| 30 | | | Novel Separation Techniques | Skill Development |
| 31 | | | Food Process Automation | skill Development |

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APPENDIX - III

List of new courses in the R-20 M.Tech – Food Processing Technology Curriculum

| SI .No | Year (Semester) | Core / Elective | Name of the Course |
|-----------|--------------------------------|-------------------------|---|
| 1 | First year (Semester I) | Core | Food Microbiology |
| 2 | First year (Semester I) | Core | Food Chemistry and Nutrition |
| 3 | First year (Semester I) | Core | Food Safety and Quality Management |
| 4 | First year (Semester I) | Core | Fermented and Non- Fermented Beverages |
| 5 | First year (Semester I) | Employability Skills | Audit Course 1 |
| 6 | First year (Semester I) | Core | Minor Project |
| 7 | First year (Semester I) | Core | Emerging Technologies in Food Processing |
| 8 | First year (Semester I) | Core | Advances in Food Engineering |
| 9 | First year (Semester II) | Core | Research Methodology & IPR |
| 10 | First year (Semester II) | Employability Skills | Audit Course 2 |
| 11 | First year (Semester II) | Employability Skills | Employment Orientation Program |
| 12 | First year (Semester II) | Employability Skills | Societal Centric/Industry Oriented Project |



| 13 | First year (Semester II) | Core | MOOCs Course- 1(Inter disciplinary Nature) |
|----|---------------------------------|-------------------------|--|
| 14 | First year (Semester II) | Core | MOOCs Course- 2(Inter disciplinary Nature) |
| 15 | Second year (Semester I) | Employability Skills | Project / Internship : phase 1 |
| 16 | second year (Semester II) | Employability Skills | Project / Internship : phase 2 |
| 17 | | | Food Quality Systems and Management |
| 18 | | | Advances in Dairy Technology |
| 19 | | | Advances in Food Packaging |
| 20 | | | Animal Products Processing |
| 21 | | | Refrigeration and Cold Storage |
| 22 | | | Nutraceuticals and Functional Food |
| 23 | | | Spices and Plantation Crop Process Technology |
| 24 | Pool of | Electives | Industrial Biotechnology and Fermentation Technology |
| 25 | | | Heat and Mass Transfer |
| 26 | | | Plant layout and process Economics |
| 27 | 1 | | Advanced Food Engineering |
| 28 | | | Fruits and Vegetable Processing |
| 29 | | | Fundamentals of Microbiology |
| 30 | | | Novel Separation Techniques |
| 31 | | | Food Process Automation |

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