

Name of Faculty: **SUNIL KUMAR**
 Discipline: **FOOD TECHNOLOGY**
 Semester: **3rd**
 Subject: **Technology of Cereals and Pulses**
 Lesson Plan Duration: **16 Weeks (July 2025-Nov. 2025)**

Work load (Theory/Practical) per week (in hours): Theory: 02, Practical: 04

Week	Lecture day	Theory
1 st	1. 2. 3. 4. 5. 6	Introduction to Syllabus and Evaluation Scheme. Status, production and major growing areas of cereals in India and world. Introduction to Laboratory and its equipments. (Practical) Determination of physical characteristics of grains((Practical) Determinations of moisture content of given flour sample. (Practical) Determination of gluten content in given flour samples. (Practical)
2 nd	7 8 9 10 11 12	Status, production and major growing areas of pulses in India and world Status, production and major growing areas of oilseeds in India and world. Estimation of ash content (Practical) Determination of water absorption capacity of given flour sample (written). (Practical) Determination of maltose value (Practical). Determination of SDS- sedimentation volume test (written).
3 rd	13 14 15 16 17 18	Structure and chemical composition of oil seeds, anti nutritional factors. Structure and chemical composition of cereals. Estimation of Pelshenke Value (Practical) Parboiling and milling of rice (Practical) Pre-treatment and milling of pulses. (Practical) To study oil extraction and refining of oil. (Practical)
4 th	19 20 21 22 23 24	Structure and chemical composition of pulses Structure and chemical composition of oil seeds, anti nutritional factors. Preparation of Pasta products – Noodles. (Practical) Preparation of Pasta products – Macroni. (Practical) Preparation of Pasta products – Vermicelli (Sevian). (Practical) To study Milling of wheat. (Practical)
5 th	25 26 27 28 29 30	Introduction to cereals and millets. Wheat: types of wheat. Preparation of ready-to-eat (RTE) food products (Practical) Determination of fat content of oilseeds (written). (Practical) Determine dough raising capacity. (Practical) Estimation of fat by soxhlet extraction method. (Practical)
6 th	31 32 33 34 35 36	Conditioning and tempering Types of wheat milling technology Determinations of moisture content of given flour sample. (Practical) Determination of gluten content in given flour samples. (Practical) To study physical characteristics of pulses (written). (Practical) Preparation of Pasta products – Noodles. (Practical)
7 th	37 38	Pasta. Other extruded products.

	39 40 41 42	Determination of maltose value (Practical). Determination of SDS- sedimentation volume test (written) Preparation of Pasta products – Vermicelli (Sevian). (Practical) To study milling of pulses (written). (Practical)
8th	43 44 45 46 47 48	Rice: Varieties of rice. Classification of rice based on various physical parameters Preparation of ready-to-eat (RTE) food products (Practical) Internal examination of students. (Practical) Preparation of Pasta products – Vermicelli (Sevian). (Practical) To study milling of pulses (written). (Practical)
9th	49 50 51 52 53 54	Parboiling Milling of rice Estimation of ash content (Practical) Determination of water absorption capacity of given flour sample (written). Determination of maltose value (Practical). Determination of SDS- sedimentation volume test (written).
10th	55 56 57 58 59 60	Factors affecting quality of rice products. Maize: Classification of maize Estimation of Pelshenke Value (Practical) Parboiling and milling of rice (Practical) Pre-treatment and milling of pulses. (Practical) To study oil extraction and refining of oil. (Practical)
11th	61 62 63 64 65 66	Dry milling of corn. Wet milling of corn. Preparation of ready-to-eat (RTE) food products (Practical) Determination of fat content of oilseeds (written). (Practical) Determine dough raising capacity. (Practical) Estimation of fat by soxhlet extraction method. (Practical)
12th	67 68 69 70 71 72	Preparation of corn flakes. Revision of corn (2.3). Determinations of moisture content of given flour sample. (Practical) Determination of gluten content in given flour samples. (Practical) To study physical characteristics of pulses (written). (Practical) Preparation of Pasta products – Noodles. (Practical)
13th	73 74 75 76 77 78	Barley and sorghum: Grain characteristics Technology of malt production Determination of maltose value (Practical). Determination of SDS- sedimentation volume test (written) Preparation of Pasta products – Vermicelli (Sevian). (Practical) To study milling of pulses (written). (Practical)
14th	79 80 81 82 83 84	Milling. Malting and popping of sorghum Determinations of moisture content of given flour sample. (Practical) Determination of gluten content in given flour samples. (Practical) To study physical characteristics of pulses (written). (Practical) Preparation of Pasta products – Noodles. (Practical)
15th	85 86 87 88	Different millets and their chemical composition. Processing and utilization. Introduction to Laboratory and its equipments. (Practical) Determination of physical characteristics of grains((Practical)

	89	Determinations of moisture content of given flour sample. (Practical)
	90	Determination of gluten content in given flour samples. (Practical)
16th	91	By-product utilization of corn milling industries.
	92	By-product utilization of pulses milling industries
	93	Preparation of ready-to-eat (RTE) food products (Practical)
	94	Internal examination of students. (Practical)
	95	Preparation of Pasta products – Vermicelli (Sevian). (Practical)
	96	To study milling of pulses (written). (Practical)