**ALAGAPPA UNIVERSITY**

(Accredited with A+ Grade by NAAC (CGPA : 3.64) in the Third Cycle) **,**

Graded as Category-I University and granted autonomy by MHRD-UGC)

**DIRECTORATE OF COLLABORATIVE PROGRAMMES**

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**CRAFT CERTIFICATE COURSE IN BAKERY AND CONFECTIONARY**

**Regulations and Syllabus**

**[For those who join the Course in July 2018 and after]**

**GENERAL INSTRUCTIONS AND REGULATIONS**

**Craft Certificate course in Bakery and Confectionary** conducted by Alagappa University, Karaikudi, Tamil Nadu through its Collaborative Institution \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Applicable to all the candidates admitted from the academic year **2018** onwards.

1. **Eligibility:**

A pass in the SSLC Examination conducted by the Government of Tamil Nadu, or an examination accepted as equivalent thereto by the Syndicate for admission to **Craft Certificate course in Bakery and Confectionary**.

1. **Admission:**

Admission is based on the marks in the qualifying examination.

1. **Duration of the course:**

The course shall extend over a period of one year under semester pattern

1. **Standard of Passing and Award of Division:**
2. Students shall have a minimum of 40% of total marks of the University examinations in each subject. The overall passing minimum is 40% both in aggregate of Continuous Internal Assessment and external in each subject.
3. The minimum marks for passing in each theory / Lab course shall be 40% of the marks prescribed for the paper / lab.
4. A candidate who secures 40% or more marks but less than 50% of the aggregate marks, shall be awarded **THIRD CLASS.**
5. A candidate who secures 50% or more marks but less than 60% of the aggregate marks, shall be awarded **SECOND CLASS.**
6. A candidate, who secures 60% or more of the aggregate marks, shall be awarded **FIRST CLASS.**
7. The Practical / Project shall be assessed by the two examiners, by an internal examiner and an external examiner.

1. **Continuous internal Assessment:**
2. Continuous Internal Assessment for each paper shall be by means of Written Tests, Assignments, Class tests and Seminars
3. **25 marks** allotted for the Continuous Internal assessment is distributed for Written Test, Assignment, Class test and Seminars.
4. Two Internal Tests of 2 hours duration may be conducted during the semester for each course / subject and the best marks may be considered and one Model Examination will be conducted at the end of the semester prior to University examination. Students may be asked to submit at least five assignments in each subject. They should also participate in Seminars conducted for each subject and marks allocated accordingly.
5. Conduct of the Continuous internal assessment shall be the responsibility of the concerned faculty.
6. The Continuous internal assessment marks are to be submitted to the University at the end of every year.
7. The valued answer papers/assignments should be given to the students after the valuation is over and they should be asked to check up and satisfy themselves about the marks they have scored.
8. All mark lists and other records connected with the continuous Internal Assessments should be in the safe custody of the institute for at least one year after the assessment.
9. **Attendance:**

Students must have earned 75% of attendance in each course for appearing for the examination.

Students who have earned 74% to 70% of attendance to be applied for condonation in the prescribed form with the prescribed fee.

Students who have earned 69% to 60% of attendance to be applied for condonation in the prescribed form with the prescribed fee along with the medical certificate.

Students who have below 60% of attendance are not eligible to appear for the examination. They shall re-do the semester(s) after completion of the programme.

1. **Examination:**

Candidate must complete course duration to appear for the university examination. Examination will be conducted with concurrence of Controller of Examinations as per the Alagappa University regulations. **University may send the representatives as the observer during examinations.** University Examination will be held at the end of the each semester for duration of 3 hours for each subject. Certificate will be issued as per the AU regulations. Hall ticket will be issued to the candidates upon submission of the list of enrolled students along with the prescribed course fee.

1. **Question Paper pattern:**

Maximum: 75 Marks Duration: 3Hours

Part A - Short answer questions with no choice : 10 x 02=20

Part B – Brief answer with either or type : 05 x 05=25

Part C- Essay – type questions of either / or type : 03 x 10=30

1. **Miscellaneous**
2. Each student posses the prescribed text books for the subject and the workshop tools as required for theory and practical classes.
3. Each student is issued with an identity card by the University to identify his / her admission to the course
4. Students are provided library and internet facilities for development of their `studies.
5. Students are to maintain the record of practicals conducted in the respective laboratory in a separate Practical Record Book and the same will have to be presented for review by the University examiner.
6. Students who successful complete the course within the stipulated period will be awarded the degree by the University.
7. **Fee structure**

Course fee shall be as prescribed by the University and 50% of the course fee should be disbursed to University. Special fees and other fees shall be as prescribed by the Institution and the fees structure must intimated to the University. Course fees should be only by Demand draft / NEFT and AU has right to revise the fees accordingly.

1. **Other Regulations:**

Besides the above, the common regulation of the University shall also be applicable to this programme.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester** | **Subject Code** | **Subject Name** | **Credits** | **Hrs** | **No.Of. paper** | **Internal**  | **External** | **Total** |
| **I**  | 11 | Bakery | 4 | 3 | 1 | 25 | 75 | 100 |
| 12 | Confectionary | 4 | 3 | 1 | 25 | 75 | 100 |
| 13 | Bakery Practical | 8 | 12 | 1 | 25 | 75 | 100 |
| 14 | Confectionary Practical | 8 | 12 | 1 | 25 | 75 | 100 |
| **II** | 21 | Bakery Hygiene And Work Safety | 3 | 12 | 1 | 25 | 75 | 100 |
| 22 | Communicative English Practical | 8 | 18 | 1 | 25 | 75 | 100 |
| 23 | Industrial Exposure Training | 8 | 8 weeks | 1 | 50 | 150 | 200 |
|  |  | Total | **43** |  | **7** | **200** | **600** | **800** |

**11 BAKERY**

 **UNIT-1**

**Objective:** The students will acquire in-depth knowledge about wheat flour and by-products of wheat.

* 1. Wheat, structure of wheat grain, types of wheat.
	2. Milling of wheat and role of bran and germ.
	3. Different types of flour.
	4. Composition of flour, gluten.
	5. Water absorption power of flour.
	6. Ph value of flour

 **UNIT-2**

**Objective:** The students will understand the different types of raw materials and their functions. Different methods of bread making.

* 1. Raw material required for bread making.

Flour, yeast, sugar, salt, water, milk, milk products, shortening and egg.

 2.2 Different methods of bread making

 Straight dough method, delayed salt method. No time dough method,

 Sponge and dough method.

 2.3 Different process in bread making.

 **UNIT-3**

**Objective:** To understand about the good quality of bread, how it should be and characteristics of inner and outer.

* 1. Characteristics of good bread.

External characteristics (volume, symmetry shape, bloom crust colour, eveness of bake, oven break, cleanliness)

Internal characteristics (colour, structure, texture and sheen, flavour and aroma, crumb clarity and elasticity, moistness)

* 1. Bread faults and remedies

**UNIT-4**

**Objective:** To understand about yeast and its functions.

* 1. An elementary knowledge of Bakers yeast.
	2. Role of yeast in fermentation and conditioning in dough.
	3. Effect of under and over fermentation.
	4. Effect of under and over proofing.

**UNIT-5**

**Objective:** To gain knowledge about bread diseases, packing and sales.

 5.1 Bread diseases-“Rope” and “Mold”

 5.2 Causes and prevention, bread improver.

 5.3 Improving physical quality

 5.4 Packing, costing and marketing.

 **References:**

* WAYNE GISSLEN – Professional Baking, 5th Edition, John Wiley USA. HANEMAN L.J. Bakery: Flour Confectionery HEINMAN
* MERMAID BOOKS The Book of Ingredients DOWELL PHILIP JOHN WILEY Understanding Baking AMENDOLA JOSEPH
* NEW AGE INTERNATIONAL, A Professional Text to Bakery and Confectionery,
* KINGSLEE JOHN VIRTUE AND COMPANY LTD., The New International Confectioner: WILFRED J. FRANCE CHARRETTE JACQUES, Great Cakes and Pastries,TEUBNER CHRISTIAN
* JOSEPH AMENDOLA, Baker’s Manual, 5th Edition, NICOLE REES

**12 CONFECTIONARY**

 **UNIT-1**

**Objective:**  To understand about the different types of raw materials and its functions in confectionery.

* 1. Cake making ingredients-Flour, sugar and egg
	2. Fats and oils.
	3. Moistening agent.
	4. Leavening agent.

 **UNIT-2**

**Objective:** The students will acquire knowledge about the different types of cake making methods, faults and remedies.

 2.1 Cake making methods

 Sugar-batter method, Flour-batter mthod, All in process, Blending method,

 Boiled method, Sugar water method.

 2.2 Characteristics of cake

 Internal-Volume,Colour of crust,Symmetery of form,Crust character, Bloom. External- Grain, Crumb colour,Aroma,Taste,Texture, shelflife

 2.3 Balancing of cake formula and oven temperature.

 2.4 Cake faults and remedies.

 **UNIT-3**

**Objective:** The students will gain knowledge about icings and hot and cold desserts.

 3.1 Different types of icing and its uses in confectionery.

 3.2 Flavour and food colour

 3.3 Setting agent-Gelatine, pectin and agar-agar

 3.4 Cocoa products and types of chocolate.

 3.5 Hot and cold desserts-souffle, mousse and pudding.

 **UNIT-4**

**Objective:** To understand about classification of pastries and its by products.

 4.1 Pastry-Types of pastries, principles involved in pastry making.

 4.2 Pastry faults and remedies.

 **UNIT-5**

**Objective:** To understand about difference between cookies and biscuits.

 5.1 Preparation of cookies and biscuits

 5.2 Factors affecting the quality of cookies and biscuits

 5.3 Cookies faults and causes.

**References:**

* WAYNE GISSLEN – Professional Baking, 5th Edition, John Wiley USA. HANEMAN L.J. Bakery: Flour Confectionery HEINMAN
* MERMAID BOOKS The Book of Ingredients DOWELL PHILIP JOHN WILEY Understanding Baking AMENDOLA JOSEPH
* NEW AGE INTERNATIONAL, A Professional Text to Bakery and Confectionery,

**13 Bakery PRACTICAL**

* Bread rolls- Soft roll and Hard roll
* Buns- Sweet Bun, Fruit bun, Hot cross bun, Burger bun, Pav bun
* Bread- Salt bread, Garlic bread, French bread, Brown bread, Fancy bread, Milk bread, Fruit bread, Rye bread, Pumpernickel bread, Pizza, Foccacia, Bread stick, Varkey, Rusk, Oat meal loaf, Pullman loaf.
* Breakfast rolls- Croissant, Danish pastry, Dough nuts, Brioche, scones, Muffins, Bagels.

**14 CONFECTIONARY PRACTICAL**

* Cakes- Fatless Sponge, Plain sponge, Genoise sponge, Gel sponge, Cup Cakes, Fruit Cake, Plum cake, Flourless cake.
* Cookies Biscuits- Salt cookies, Vanilla cookies, Melting moments, Nan-Khatai, Coconut cookies, Marble cookies, Chocolate cookies, Macaroons, Butter Cookies.
* Pastries- Short crust pastry (Tart, Pie and Flans)

 Puff Pastry (Patties, Cheese straws, mille-feuille, khara Biscuits, cream horns)

 Choux Pastry (Profiterole, Éclair, Swanpuff)

 Flaky Pastry (Strudels and Baklava)

* Icing- Butter icing, Royal icing, Marzipan, Gum paste, Ganache, Meringue, Almond Paste, glace icing, whipping cream (non dairy)
* Frozen desserts- Ice cream varieties, Parfait varieties.
* Cake Decoration- Birthday, Wedding, anniversary, Ornamental works, Christmas cake.
* Desserts- Baba-au Rum, Meringue, Souffle, Mousse Bavarois, Tiramisu, Warm

 Chocolate cake, Brownie chocolate, Mould chocolate, Chocolate Decorations.

**21 BAKERY HYGIENE AND WORK SAFETY**

**Unit: I**

**Objective:** After the completion of this unit, the student will know the methods of quality control and good storage methods.

**QUALITY BAKERY GOODS**

1. Quality control for raw materials, dough and finished products.

2. Storage methods for raw materials and finished products to avoid Bread diseases.

**Unit: II**

**Objective:** After the completion of this unit, the student will understand the food poisoning causes and the ways of their prevention.

**FOOD SAFETY METHODS**

1. Definition of food poisoning.
2. Food Infection and food Intoxication.
3. Food poisoning bacteria and their prevention.
4. Food safety methods. ( HACCP, COSHH, Danger zone temp, cross contamination, colour coding)
5. General rules of sanitary food handling

**Unit: III**

**Objective:** After the completion of this unit, the student will understand about the good structural details of a hygienice bakery and the environment hygiene.

**PREMISES HYGIENE**

1. Good structural details for a hygienic bakery. (Floors, Walls, Ceilings, Drainage, plumbing, lighting and ventilation)
2. Ill effects of Garbage and Eco-friendly methods of Garbage disposal.
3. Pest and diseases, pest control techniques.
4. Equipment Hygiene
	1. Definition of Disinfection, Sterilization and sanitation
	2. Cleaning methods for electrical, large and small equipments.
5. Two and Three sink dish washing methods.

**Unit: IV**

**Objective:** After the completion of this unit, the student will understand the measures to be taken to maintain their personal safety.

**PERSONAL SAFETY**

1. Good grooming standards and care of body parts for personal hygiene.
2. Importance of oral Hygiene.
3. Comfortable and protective clothing.
4. Causes of Accidents and their preventive methods.
5. Basic first aid for minor Injuries (Burns, Scalds, cuts and wounds, Insect bites)

**Unit: V**

**Objective:** After the completion of this unit, the student will know about the general safety rules and food safety laws.

**FOOD SAFETY AND FIRE SAFETY**

1. Food safety laws. (Including Adulteration)
2. Fire safety.
3. General safety rules to avoid accidents.

**Reference Book:**

* Theory of catering – Victor cessarani
* Preventive medicine – Park and park

**22 Communicative English Practical**

1. Practice of writing essays
2. Practice of letter writing
3. Speech improvement: Pronunciation, Stress, Accent, Common phonetic Difficulties
4. Self introduction
5. Speaking to superiors
6. Speaking to celebrity
7. Speaking to subordinates
8. Long Sentence Formation & Dialogues
* Dialogues In – Kitchen - Food & Beverage Outlet – Bus Stand – Railway

Station – Bank – Airport.

1. Preparing a speech
2. Public speaking
3. Etiquettes and manners
4. Group discussion.

**Reference:**

1. Business Communication - Rhoda Doctor & Aspi Doctor
2. Communication Media - Angela Wadia
3. Business English - Bal & Nagamia

**23 –INDUSTRIAL EXPOSURE TRAINING**

**Note**:

* Internship for 8 weeks at a stretch is compulsory.
* After the internship, practical examination for internship will be conducted during the II Semester examinations.

**Mark Allocation:**

**Internal Marks:**

Log Book 35

Attendance 15 50

**External Marks :**

Training Report 60

Presentation 60

Viva 30 150

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**Total Marks 200**

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