

NATIONAL CERTIFICATE MODULE: UNIT SPECIFICATION**STATEMENT OF STANDARDS****UNIT NUMBER:** 3230213**UNIT TITLE:** CRAFT BAKING: FERMENTATION AND
CONDITIONING TECHNOLOGY

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME

1. EXPLAIN THE SELECTION OF EQUIPMENT AND INGREDIENTS FOR FERMENTED DOUGH PROCESSES

PERFORMANCE CRITERIA

- (a) The identification of conditioning equipment for fermented products is correct.
- (b) The explanation of the selection of the equipment is correct with respect to the process.
- (c) The identification of appropriate ingredients/additives to condition the product is correct with respect to the equipment used.
- (d) The explanation of the effect of using varying proportions of ingredients and additives is correct with respect to the product conditioning.

RANGE STATEMENT

Equipment: planetary, high-speed and spiral mixers; retarder and final provers; freezers; moulders; ovens.

EVIDENCE REQUIREMENTS

Written evidence of the ability to identify conditioning equipment covering the above range of equipment and processes and identify appropriate additives.

Written evidence of the ability to explain the selection of equipment and the effect of using varying proportions of ingredients.

OUTCOME

2. CARRY OUT BAKERY FERMENTATION PROCESSES

PERFORMANCE CRITERIA

- (a) The use of the equipment is correct with respect to the product.
- (b) The incorporation of the ingredients is correct with respect to the appropriate weight and sequence.
- (c) The explanation of the changes occurring during different fermentation processes is correct.

RANGE STATEMENT

Equipment: planetary, high-speed and spiral mixers; retarder and final provers; freezers; moulders; ovens.

Processes for fermenting the following products: bulk fermented dough; sponge/fermented dough; Chorleywood bread process (mechanical dough development); activated dough development); pre-mixes.

EVIDENCE REQUIREMENTS

Practical evidence of the ability to use the above range of equipment, incorporate ingredients and written evidence of the ability to explain changes occurring during different fermentation processes covering the above range and processes for fermenting products.

OUTCOME

- 3. MODIFY THE PROCESSES USED IN THE PRODUCTION OF A FERMENTED PRODUCT TO MEET THE PRODUCT SPECIFICATION

PERFORMANCE CRITERIA

- (a) The checking of the product against the product specification criteria is correct.
- (b) The modification of the process to meet the product requirement is correct.
- (c) The modification of the recipe to meet the product requirement is correct.
- (d) The explanation of modifications is correct.

RANGE STATEMENT

Product specification criteria: colour (crust and crumb); texture; taste; smell; appearance: volume; weight.

EVIDENCE REQUIREMENTS

Practical evidence of the ability to check the product against product specification criteria.

Practical evidence of the ability to modify the process and the recipe to meet product requirements. Each of the product specification criteria given in the range, must be covered in the modification of fermented products. Each change to each criterion must be carried out on a separate occasion.

Written evidence of the ability to explain the modification of the process and recipe.

ASSESSMENT RECORDS

In order to achieve this unit, candidates are required to present sufficient evidence that they have met all the performance criteria for each outcome within the range specified. Details of these requirements are given for each outcome. The assessment instruments used should follow the general guidance offered by the SQA assessment model and an integrative approach to assessment is encouraged. (See references at the end of support notes).

Accurate records should be made of assessment instruments used showing how evidence is generated for each outcome and giving marking schemes and/or checklists, etc. Records of candidates' achievements should be kept. These records will be available for external verification.

SPECIAL NEEDS

In certain cases, modified outcomes and range statements can be proposed for certification. See references at end of Support Notes.

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NATIONAL CERTIFICATE MODULE: UNIT SPECIFICATION**SUPPORT NOTES**

UNIT NUMBER	3230213
UNIT TITLE	CRAFT BAKING: FERMENTATION AND CONDITIONING TECHNOLOGY

SUPPORT NOTES: This part of the unit specification is offered as guidance. None of the sections of the support notes is mandatory.

NOTIONAL DESIGN LENGTH: SQA allocates a notional design length to a unit on the basis of time estimated for achievement of the stated standards by a candidate whose starting point is as described in the access statement. The notional design length for this unit is 80 hours. The use of notional design length for programme design and timetabling is advisory only.

PURPOSE This module is particularly suitable for candidates who are interested in developing the professional skills and knowledge associated with the fermentation and conditioning of products. It may also be of interest to candidates following a programme of catering modules, or as a leisure and recreation activity.

SQA publishes summaries of NC units for easy reference, publicity purposes, centre handbooks, etc. The summary statement for this unit is as follows:

This module will enable you to gain an understanding of and practical skills required for the fermentation and conditioning of products. You will learn how to produce bakery fermented goods, modify the production of goods and learn why particular pieces of equipment and types of ingredients are used.

CONTENT/CONTEXT The content should be designed in such a way as to develop the technical knowledge required by the experienced craft baker.

Corresponding to Outcomes 1-3:

Safety and hygiene regulations and safe working practices and procedures should be observed at all times. Candidates should be made aware of the relevant legislation for the given processes and materials.

The candidates should also be made aware of and carry out the necessary methods of cleaning appropriate to the process.

Understand the reasons for the selection of specific ingredients and choice of specific equipment for a given fermentation conditioning process. The candidate should understand the theory of fermentation and conditioning processes in order to be able to make appropriate alterations required to achieve the desired product.

2. Reference should be made to pre-mixes and frozen doughs.

3. The candidate should have the ability to alter production processes or recipes in order to correct faults which have been identified in product quality.

The candidate should have the ability to modify recipe specifications and processes not as a result of faults but to re-balance ingredients for a particular specification, for example, how to balance ingredients to make a more cost-effective cake.

APPROACHES TO GENERATING EVIDENCE It is recommended that this module could be taken as part of a programme of craft baking technology modules.

The module is constructed in such a way as to allow the linking together of the outcomes during the practical study from the preparation of the materials through to the modification of a fermented product.

Products should be carefully selected and used as a means of developing an understanding of, and practical experience of the processes, materials, and decorations.

It is important that the delivery of this module should be process driven, not product-based.

The use of carefully structured practical worksheets should be a central support to the delivery and completion of the module. The worksheets should provide general instructions for the practical activities and could require the candidate to complete sections relating to such items as equipment, materials and product specification.

ASSESSMENT PROCEDURES: Centres may use the Instruments of Assessment which are considered by tutors/trainers to be the most appropriate. Examples of Instruments of Assessment which could be used are as follows :

- Outcome 1 It is recommended that structured questions are used here to assess Performance Criteria (a) to (d) ensuring that the range statement and evidence requirements are achieved.
- Outcome 2 For Performance Criteria (a), and (b) practical exercises should be used, covering the given range. Observation checklists should be devised to ensure the candidate's completion of the exercises. Performance Criterion (c) should be assessed by means of a structured question.
- Outcome 3 Practical exercises should be set here within which the candidate should carry out the required modifications within Performance Criteria (a) and (b). Performance Criteria (c) and (d) should be assessed by means of a structured question.

PROGRESSION

Candidates could progress onto Higher National Units.

RECOGNITION Many SQA NC units are recognised for entry/recruitment purposes. For up-to-date information see the SQA guide 'Recognised and Recommended Groupings'.

REFERENCES

1. Guidelines for Module Writers.
2. SQA's National Standards for Assessment and Verification.
3. For a fuller discussion on assessment issues, please refer to SQA's Guide to Assessment.
4. Procedures for special needs statements are set out in SQA's guide 'Students with Special Needs'.

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