The Hong Kong Polytechnic University

Subject Description Form

Please read the notes at the end of the table carefully before completing the form.

Subject Code	FSN4427
Subject Title	Food Product Development Project
Credit Value	3
Level	4
Pre-requisite/ Co-requisite/ Exclusion	FSN4424 Food Product Development
Objectives	The primary objective of the subject is to promote students' abilities and efforts to apply and incorporate their knowledge and skills acquired in the programme to solve a practical problem or to investigate a matter of interest in relation to food safety and technology. Another aim is to foster students' all-round skills in creativity, analytical and critical thinking, teamwork, information acquisition, oral and written communications, interpersonal relationship, professionalism and social responsibilities as well as time management and organization abilities.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: (a) Generate and develop innovative food product ideas that meet specific consumer needs and market trends. (b) Conduct comprehensive research and analysis to support the feasibility and development of their food product, including ingredient functionality, nutritional value, and sensory attributes. (c) Apply food science principles to formulate and optimize a new food product, considering factors such as safety, quality, and shelf-life. (d) Demonstrate effective project management skills by planning, executing, and evaluating the stages of food product development within a given timeframe. (e) Identify and apply relevant food regulations and standards to ensure the product meets legal and safety requirements. (f) Critically evaluate the success and challenges of their product development process, reflecting on lessons learned and potential improvements. (g) Communicate effectively, for report writing and presentation.
Subject Synopsis/ Indicative Syllabus	This capstone subject in food science challenges students to apply their cumulative knowledge and skills in the creation of an innovative food product. Students will engage in the entire product development process, from ideation and research to formulation and market readiness. Emphasizing creativity and practical application, the course integrates principles of food chemistry, microbiology, nutrition, and engineering. Students will also explore market

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<tr><td></td><td>trends and regulatory requirements, ensuring their products meet industry standards. The subject culminates in a comprehensive project report and a dynamic roadshow presentation, equipping students with essential skills for successful careers in the food industry.</td></tr>
<tr><td>Teaching/Learning Methodology</td><td>With guidance from a project supervisor, each student will propose their own food product development project. After conducting preliminary market research and critically assessing relevant literature, students must submit a proposal and carry out an extensive review of existing products and scientific data, and to formulate their products. Students are required to prepare a detailed project report and deliver a compelling roadshow presentation to effectively communicate the product concept, development process, and market potential to a diverse audience. The project is assessed based on the achievement of proposed objectives, effective planning and execution, and the interpretation and presentation of research findings and product development outcomes.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="7">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td><td>f</td><td>g</td></tr>
<tr><td>1. Project Proposal</td><td>5</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td>✓</td></tr>
<tr><td>2. Execution of the Project</td><td>5</td><td></td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>3. Written Final Report</td><td>40</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>4. Roadside Presentation</td><td>50</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="7"></td></tr>
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<tr><td>Student Study Effort Expected</td><td>
<table>
<tr><td>Class contact:</td><td></td></tr>
<tr><td>▪ Literature review, ideation and execution of project</td><td>80 Hrs.</td></tr>
<tr><td>Other student study effort:</td><td></td></tr>
<tr><td>▪ Writing Proposal and Final Report</td><td>30 Hrs.</td></tr>
<tr><td>▪ Preparing presentation</td><td>20 Hrs.</td></tr>
<tr><td>Total student study effort</td><td>130 Hrs.</td></tr>
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<tr><td>Reading List and References</td><td>Relevant journals, news, legislation and articles.</td></tr>
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