



1.	<b>Title of Programme(s): (incl. Award Type and Specify Embedded Exit Awards)</b>	MSc in Nutrition and Sensory Science Postgraduate Diploma in Science in Nutrition and Sensory Science Certificate in Nutrition and Sensory Science  The Postgraduate Diploma and Certificate will also act as exit awards for the Masters programme.
2.	<b>NFQ Level(s)/ No. ECTS:</b>	9 90 ECTS, 60 ECTS, 30 ECTS
3.	<b>Duration:</b>	MSc – 1.5 years Postgraduate Diploma – 1 year Certificate – 1 year
4.	<b>ISCED Code:</b>	0510
5.	<b>School / Centre:</b>	School of Science and Computing
6.	<b>Department:</b>	Department of Sport, Exercise & Nutrition Science
7.	<b>Type of Review:</b>	New Programme
8.	<b>Date of Review:</b>	25 <sup>th</sup> May 2021
9.	<b>Delivery Mode:</b>	Blended
10.	<b>Panel Members:</b>	Dr Joe McGarry, Education Consultant (Chair) Prof Sungeon Cho, Assistant Professor, Auburn University Dr Patricia Heavey, Lecturer and Course Co-ordinator Health Science and Nutrition, Athlone Institute of Technology Ms Annette Hargaden, Quality Manager, Irish Distillers Ms Carmel Brennan, Head of Academic Quality GMIT (Secretary)
11.	<b>Proposing Staff:</b>	Dr Des Foley Dr Lisa Ryan Ms Jacinta Dalton Ms Paula Conroy Dr Francesco Noci Dr Clare Gilsean Mr Ulrich Hoeche
12.	<b>Programme Rationale:</b>	The proposed MSc in Nutrition and Sensory Science and embedded awards are innovative courses, which have been designed taking a multi-disciplinary approach to academic and experiential development for students from a range of professional backgrounds. There are significant growth opportunities for Ireland's functional food export market to EU, Asian and African markets (DAFM, n/d). McCarty (2015) recommends that functional foods should be marketed on a multi-benefit platform that not only includes nutrition but

		<p>sensory, in particular, taste and convenience considerations. Currently, there is no course in Ireland specialising in nutrition, sensory and taste science, yet, there is an increasing awareness of the need for highly trained nutrition, sensory and taste science specialists in Ireland.</p> <p>This programme will focus on the role of nutrition, sensory and taste science in human health and food product development. It will be aimed at graduates who have already developed a real interest in science and food. The proposed programme is designed to provide students with evidence-based practice, and a firm grounding in the scientific method in the context of nutrition, sensory and taste science. The course is based on the latest scientific research into current sensory science techniques, functional foods, nutrition and health and taste science and best novel contemporary practice.</p> <p>According to Nielsen (2015), the failure rate of for new products launched annually is 76 percent. Food producers, manufacturers and retailers are increasingly looking to include sensory and taste science in the product development process, as one critical component in reducing the risks associated with existing and new product development. In response to this challenge, the Department of Agriculture, Food and Marine established the Sensory Food Network of Ireland amongst the universities, Institutes of Technology and Teagasc, to promote sensory and taste science in Ireland.</p>
13.	<p><b>Potential Demand for Entry:</b></p>	<p>Giving due consideration to the predicted level of interest in the programme following the consultation process and the need to provide adequate research supervision and support, a target of 16 students (FTE) is suggested. It is likely that there will be a mix of full time and part-time students and the programme has been developed to allow that flexibility.</p>
14.	<p><b>Stakeholder Engagement:</b></p>	<p>As part of the development of this programme a wide-ranging consultation of students, employers and professionals in the area was completed. Staff within the School of Science and Computing have a strong relationship with local, national and international employers and there is much interaction at an informal level, (through personal contacts, for instance) as well as through more formal structures such as professional memberships.</p> <p>A systematic approach to the consultation was undertaken. Informal discussion with &gt;200 undergraduate students took</p>

		<p>place throughout the 2019-2020 and 2020-2021 academic years. A snowball approach was taken to the consultation where the programme team initially contacted known industry representatives and then asked for introductions to further experts in the area to provide a wide range of feedback and consultation.</p>
15.	<p><b>Graduate Demand:</b></p>	<p>The MSc in Nutrition and Sensory Science is of benefit to individuals seeking to enhance careers in many areas of the food sector, both in Ireland and internationally. Graduates will work in areas such as product innovation, marketing, sales and product quality enhancement with the distinct advantage of bringing a nutrition and sensory analysis perspective to their role within the food industry. These roles include:</p> <ul style="list-style-type: none"> <li>• Sensory Scientist</li> <li>• Sensory &amp; Consumer Scientist</li> <li>• New Product Development Technologist</li> <li>• RD&amp;A Scientist</li> <li>• Quality Assurance Technologist</li> <li>• Digital Consumer Insights Analyst</li> <li>• Digital Food Media Associate</li> <li>• Research Officer in State Agencies and HEIs</li> <li>• Advisory roles in Nutrition, Sensory &amp; Taste Sciences</li> <li>• Self-employment (consultant, entrepreneur)</li> </ul>
16.	<p><b>Entry Requirements, Access, Transfer &amp; Progression:</b></p>	<p>Minimum Entry Requirements: Candidates must hold a cognate Level 8 Bachelor (Hons) degree with a minimum grade classification of H2.2 or equivalent. Typically, students should come from a scientific background though applications that demonstrate appropriate experiential learning will also be considered.</p> <p>English Language Requirements will be as determined by GMIT and as published in the Access, Transfer and Progression code. The current requirements are as follows:  Non-EU applicants who are not English speakers must have a minimum score of 6.0 (with a minimum of 6.0 in each component) in the International English Language Testing System (IELTS) or equivalent. All results must have been achieved within 2 years of application to GMIT.  EU applicants who are not English speakers are recommended to have a minimum score of 6.0 (with a minimum of 6.0 in each component) in the International English Language Testing System (IELTS) or equivalent.</p>

		<p>GMIT is committed to the principles of transparency, equity and fairness in recognition of prior learning (RPL) and to the principle of valuing all learning regardless of the mode or place of its acquisition. Recognition of Prior Learning may be used to gain entry to or exemptions from the programme in line with the GMIT policy.</p>
17.	<b>Programme Structure:</b>	<p>The programme consists of 30 ECTS of taught modules delivered on a semesterised basis and two 30 ECTS interrelated research project modules.</p>
18.	<b>Learning, Teaching &amp; Assessment Strategies:</b>	<p>The teaching and learning strategies employed for this blended approach recognise level 9 students as adult learners, and are based on the constructivist approach, recognising learning as an active process whereby students are encouraged to build on existing knowledge to develop new schemas of understanding which they can apply to a variety of contexts.</p> <p>Student-centred teaching strategies will maximise problem-based learning focussed on authentic real-world scenarios relevant to the discipline. Active learning approaches (professional practice, research-based projects, field exercises, practical classes) will ensure that learning through doing dominates the programme rather than passive learning achieved by traditional lecturing approaches. A variety of teaching modalities fit to the content of a course will be used:</p> <ul style="list-style-type: none"> <li>• Lectures (provided by academic &amp; research staff, industry). These will be delivered in an online environment.</li> <li>• Seminars: a session in which a specific topic fitting the scope of the course is discussed by an expert in the field</li> <li>• Practical exercises: sessions in nutrition and food/sensory facilities in which students get hands-on practical training</li> <li>• Intensive group activities, in class debates, role-play, journal clubs, online discussion groups and activities</li> <li>• Research based learning: learning from being actively or passively involved in a research activity</li> </ul> <p>The assessment types are varied, and include: written technical reports based on work carried out in the field, written assignments based on experimental work in the laboratory, oral presentations, technical assignments in nutrition and dietary strategies, statistical analysis, a</p>

		literature review, an ethics application and a research paper for publication.
19.	<b>Resource Implications:</b>	The programme can be taught within existing resources for stage 1 but will require additional academic resources to supervise masters research projects. One additional staff member will be required as the first cycle progresses. Equipment and space are being sourced but will need to be enhanced as the programme grows. Half a technician is required to deliver the programme.
20.	<b>Synergies with Existing Programmes:</b>	The Research Methods and Research Projects modules are common with another Masters Programme in the Department leaving scope for common delivery as appropriate.
21.	<b>Findings and Recommendations:</b>	<b>General:</b>
		<p><b>Commendations:</b></p> <ol style="list-style-type: none"> <li>1. The panel welcomed this new and innovative proposal and particularly its uniqueness in the Irish context.</li> <li>2. The extensive consultation undertaken with industry was highly praised and the quality and positivity of the feedback was noted.</li> <li>3. The panel were highly complimentary of the consultation undertaken with students to inform this programme and establish their requirements.</li> <li>4. Modules are supported by a strong evidence approach and students will be provided with the opportunity to develop critical analysis skills during this programme.</li> <li>5. The programme is strong on research elements, and the skills students develop in those modules will be very useful in a professional setting.</li> </ol> <p>The programme was approved subject to the following condition(s) (0 ) and recommendation(s) (6).</p>
		<p><b>Special conditions attaching to approval (if any):</b></p> <p>None.</p>
		<b>Recommendations of the panel in relation to award sought:</b>

		<ol style="list-style-type: none"> <li>1. The overall aims of the programme are not adequately reflected in the modules. There is a lack of integration between nutrition, health, functional foods and implications for sensory science in the documentation at the moment. The integration of these elements should be evident within each module.</li> <li>2. The programme assessment strategy should clearly reflect the integrated approach to assessment that is proposed and provide examples of integrated assignments that may be undertaken as part of this programme.</li> <li>3. Enhance the content relating to product development (concept to launch) within the programme.</li> <li>4. Principles of Food and Nutritional Science: This module needs to clearly articulate the link between nutrition and sensory science. Addressing the assessment for this module may help address this issue. The proposers should consider whether the hours allocation for this module are adequate to achieve the module learning outcomes.</li> <li>5. Consumer &amp; Trained Panel Sensory Science: Consider including ethics in the syllabus. As this is a core module the panel strongly recommend incorporating practical sessions to allow for appropriate skills development. Consider an assessment around running a panel and calibrating that panel.</li> <li>6. Sensory Techniques for Nutrition Research: This module's content should be more targeted to nutritional research. This will require coordination between the nutrition, sensory science and culinary lecturers to develop very targeted content and assessments. Include more laboratory sessions to ensure that students gain the skills required for understanding this topic as well as developing the skills required by industry. Students should be taught about the instruments that measure sensory properties of food and correlation of the instrument data with the sensory data.</li> </ol>	
22.	FAO: Academic Council:	Approved:	
		Approved subject to recommended changes:	X
		Not approved at this time:	
	Signed:	 Joe McGarry	
		Chair	Secretary