VALIDATION REPORT

1.	Title of Programme(s): (incl. Award Type and Specify Embedded Exit Awards)	BEng (Hons) in Agricultural Engineering BEng in Agricultural Engineering
2.	NFQ Level(s)/ No. ECTS:	Levels 8 and 7 240, 180 ECTS
3.	Duration:	4, 3 years
4.	ISCED Code:	0710
5.	School / Centre:	School of Engineering
6.	Department:	Department of Mechanical and Industrial Engineering
7.	Type of Review:	Differential Validation
8.	Date of Review:	29th March 2022
9.	Delivery Mode:	Full-time
10.	Panel Members:	Dr. William Finnegan, Senior Research Fellow, School of Engineering, NUI Galway Mr. Terence Killeen, McHale, Co. Mayo Carmel Brennan, Assistant Registrar (Quality) (Secretary)
11.	Proposing Staff:	Dr Oliver Mulryan Dr Edna Curley Dr Enda Kennedy
12.	Rationale for Changes:	When originally validated, a Higher Certificate award was not proposed. Given the experience of delivering the programme the Programme Board now realise the importance of this award in providing enhanced flexibility in relation to entry and exit. This programme may be used as an entry point at some point in the future, but initially it will be used to allow students who have successfully completed the first two stages to leave with a qualification recognising their accomplishments. The programme content prepares students to work at technician level, and there is employer demand for graduates at this level. The Higher Certificate (L6) in Agricultural Engineering programme is a two-year, 130 ECTS credits programme, designed to introduce the fundamental and underpinning principles of Agricultural Engineering to the enrolled learner. The primary aim of the Higher Certificate programme is to produce Agricultural Engineering Technicians who can use mathematics, engineering, and science

		skills to assist professional Agricultural Engineers in a variety of agricultural engineering areas or cognate industries (i.e. Horticulture, Forestry etc).The Higher Certificate programme is equivalent to the first two stages of the L7 or L8 Agricultural Engineering degree programme, both of which have a mechanical/mechanisation core, with a strong focus on the design, manufacture and automation of agricultural machinery, systems and equipment. The Higher Certificate programme consists of three traditional agricultural themes of learning, namely: - Agricultural Systems Design, - Agricultural Systems Manufacture, Control and Automation. - Farming Planning, Agricultural Sciences and Environmental Systems. The secondary aim of the L6 Higher Certificate programme is to provide a progression pathway to a L8 Agricultural Engineering degree, which is also on the Qualified Young Farmer register. Graduates of the L8 programme are deemed competent in running a farming business and, therefore, satisfying part of the requirements for stamp duty exemption on the transfer of a farm to a son or daughter along with other farm schemes and other revenue exemptions, which may arise from time to time, as documented by the Department of Agriculture, Food and the Marine, and the Department of Finance. The tertiary aim of the programme is to provide the learner with an educational experience, which will equip them with numerous transferable skills and inculcate an ethos of life-long learning. Employment opportunities: There is a wide range of employers, including those solely focused on manufacturing robust agricultural machinery and equipment. Agricultural Engineering technicians can also work as engineering technicians in cognate disciplines such as forestry, mineral processing horticulture etc, and in environmental or conservation management. Additionally, they may become entrepreneurs or decide to work in technical sales and services. The agricultural Engineering Technicians will be able to aid professional engineers by: • Assisting with the drafting and design of a diverse range of agricultural to forest machinery and equipment using parametric CAD software. • Developing, testing and trialling new robust products for the agricultural industry. • Investigating and testing ideas to improve existing systems and solving everyday engineering problems. • Maintaining operational systems records, data sheets, technical manuals and/or other documentation to ensure systems operate efficiently, safety and smoothly. • Being capable of using manufacturing machinery or by improving the manufacturing processes and methods,

		automation or in improving manufacturing processes and methods, fault-finding and preventative maintenance. • Managing and overseeing the work of fitters who are installing, repairing and maintaining equipment. • Work in technical sales, after-sales and services. • It is envisaged that graduates of the programme under the direction and guidance of a professional engineer will be capable of using proven techniques to work autonomously and responsibility. Furthermore, graduates will be equipped with the core knowledge which may be used to set up their own business.	
13.	Overview of Changes:	Approval was sought for a Higher Certificate in Engineering in Agricultural Engineering. This equates to the first two years of the level 7 and level 8 programme modules, and has its own Programme Learning Outcomes, entry requirements, APS, rationale, employment opportunities etc.	
14.	Resource Implications:	None.	
15.	Findings and Recommendations:	General:	
		The panel approve the proposed change with no conditions or recommendations.	
16.	FAO: Academic Council:	Approved:	X
		Approved subject to recommended changes:	
		Not approved at this time:	
	Signed:		
		Chair	Secretary