University of East Anglia

ACADEMIC PARTNERSHIPS

Module Outline **Part 1- as validated**

1.	**Title**	**Individual Engineering Project (EPA Capstone)**
2.	**Level**	**6**
3.	**Credits**	**40**
4.	**Indicative Student Study Hours**	**36 hours lectures** **364 hours self-directed study**
5.	**Core (must take and pass), Compulsory (must take) or Optional**	**Compulsory**

5. Brief Description of Module (purpose, principal aims and objectives)

The aim of this capstone module is to allow apprentices to link academic study, advanced research methods, and practical problem solving within a professional manufacturing environment. This module acts as the Integrated End Point Assessment period for the Manufacturing Engineer degree apprenticeship. Apprentices are required to plan, carry out, and report on a major piece of technical engineering work that provides measurable value to their employer. The module incorporates the dual assessment methods required by the IfATE ST0025 v1.2 standard. This includes a technical project report with a formal presentation and a professional discussion based on a work portfolio. Through this process, apprentices demonstrate their mastery of the required knowledge, skills, and behaviours. This ensures they meet the high standards needed for both an honours degree and professional recognition as an Incorporated Engineer.

The apprentice must complete a project based on any of the following:

- a specific problem or recurring issue related to a product, or a research or development project, for example a continuous improvement project or product system update
- a new project such as the implementation of a product or technology (depending on size this may only cover a certain aspect of the project)
- a feasibility study such as investigating a new piece of equipment or technology

To ensure the project allows the apprentice to meet the KSBs mapped to this assessment method to the highest available grade, the EPAO must sign-off the project's title and scope at the gateway to confirm it is suitable. The EPAO must refer to the grading descriptors to ensure that projects are pitched appropriately.

6. Learning Outcomes - On successful completion of this module a student will be able to:

(*Add more lines if required)*

	Subject Specific Learning Outcomes
1.	Formulate, plan, and manage a complex engineering project within a commercial workplace (or simulated industrial) context, effectively mapping intended outcomes to professional standards.

2.	Execute advanced engineering methodologies, integrating current and emerging digital/manufacturing technologies to develop robust solutions.
3.	Critically evaluate project outcomes, performance metrics, and issue resolution, incorporating rigorous sustainability and ethical reviews.
	Generic Learning Outcomes
4.	Curate a comprehensive portfolio of professional evidence (work-based or academic) and critically reflect on personal competence, leadership, and inclusive practice (EDI).
5.	Professionally communicate complex engineering concepts and independently defend technical decisions through formal presentation and rigorous oral questioning.

7. Assessment

Pass on aggregate or Pass all components *(Modules can only be pass all components if this is a PSRB requirement)*	Pass on aggregate

Summary of Assessment Plan

	Type	% Weighting	Anonymous Yes / No	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
1.	Project Proposal & Gateway Brief (inc. Portfolio)	Pass/Fail (EPA) 10%	No	1,500 words + Portfolio	LO 1, 4	Formative Prerequisite (Must pass to progress to EPA).
2.	Technical Project Report	70%	No	9,000 words (±10%)	LO1, LO2, LO3, LO5	Summative Assessment Method 1.
3.	Live Assessment (Presentation, Q&A & Professional Discussion)	20%	No	Approx. 120 minutes 15 – 20 Presentation 40 – 45 min Professional Discussion	LO3, LO4, LO5	Includes Presentation, Q&A, and Professional Discussion.

Further Details of Assessment Proposals

Give brief explanation of each assessment activity listed

Project Proposal & Gateway Brief: A submission outlining the engineering challenge and mapping it to the required knowledge, skills, and behaviours. This includes a curated portfolio of evidence from the workplace and acts as the formal gateway to the final assessment.

Technical Project Report: A comprehensive dissertation style report reflecting the research process, application of technology, sustainability reviews, and problem resolution. This is assessed as part of the formal End Point Assessment.

Live Assessment: Conducted by an independent panel. It includes a 20 minute presentation on the project report followed by a 40 minute questioning session. The assessment concludes with a 60 minute professional discussion based on the evidence within the apprentice work portfolio.

8. Summary of Pre and / or Co Requisite Requirements

Apprentices must successfully pass the internal gateway review and meet all employer requirements to proceed to the live End Point Assessment.

9. For use on following programmes

BEng (Hons) Engineering - Manufacturing Engineer (Degree) Apprenticeship (ST0025 v1.2)