Liverpool John Moores University

Title:	PRODUCTION ENGINEERING
Status:	Definitive
Code:	**4504NCCG** (129404)
Version Start Date:	01-08-2021
Owning School/Faculty:	Engineering
Teaching School/Faculty:	Nelson Campus

Team	Leader
Christian Matthews	Y

Academic Level:	FHEQ4	**Credit Value:**	20	**Total Delivered Hours:**	60
Total Learning Hours:	200	**Private Study:**	140		

Delivery Options
Course typically offered: S1, S2, Sum, NS2 (S2 for Jan)

Component	Contact Hours
Lecture	60

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Seminar	Seminar Paper	50	
Report	Assignment	Assignment	50	

Aims

As an engineering student you will consider the impact modern production models play in ensuring products and materials reach the end user to the highest quality in the shortest of lead times. Production engineering is continually evolving as a result of both consumer and government product requirements. Therefore, this module will introduce students to the production process for key material types; the various types of machinery used to manufacture products and the different ways of organising production systems to optimise the production process. Students will also consider to measure the effectiveness of a production system within the overall context of a

manufacturing system; and examine how production engineering contributes to ensuring safe and reliable operation of manufacturing.

Learning Outcomes

After completing the module the student should be able to:

1	Illustrate the role and purpose of production engineering and its relationship with the other elements of a manufacturing system.
2	Select the most appropriate production processes and associated facility arrangements, for manufacturing products of different material types.
3	Analyse how a production system can incorporate a number of different production processes for a given product or assembly
4	Explore the effectiveness of a production system in terms of its operation within the wider manufacturing system.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Seminar Paper	1	2
Assignment	3	4

Outline Syllabus

- *Fundamental principles of manufacturing and production base technology.*
- *Methods of production relating to cost effectiveness and efficiency.*
- *Consideration of future focused requirements*
- *Environmental considerations and impacts which inform production systems and methods*

Learning Activities

Lectures

These will not normally be traditional didactic lectures in which the student plays little active part, but will be delivered in small groups of up to 20 students in which their interaction with their tutor is a key ingredient of their learning experience.

The material of this module requires the development of significant practical skill. This will be taught within the lecture time, making these sessions a blend of lecture and workshop time. The sessions will be timetabled in spaces with physical resources appropriate to the delivered content.

Students will receive approximately 30 hours of taught material, supported by in-class exercises and discussions designed to help student assimilate learning and to

provide early informal feedback on their progress.

Seminar

This module includes a seminar exercise where students are given topics to investigate for presentation back to their groups. The seminar forms part of the assessment for this module.

Independent Study

Students are expected to undertake personal reading and research into topic areas that have been stimulated from the lectures and seminars. This reading will enhance their academic work and enable valid contribution to lectures and seminars.

VLE support

This will provide links to academic web-sites and on-line journals, facilitate group discussion outside of the classroom, access to outline lecture notes, and provide students with assessment details.

Notes

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