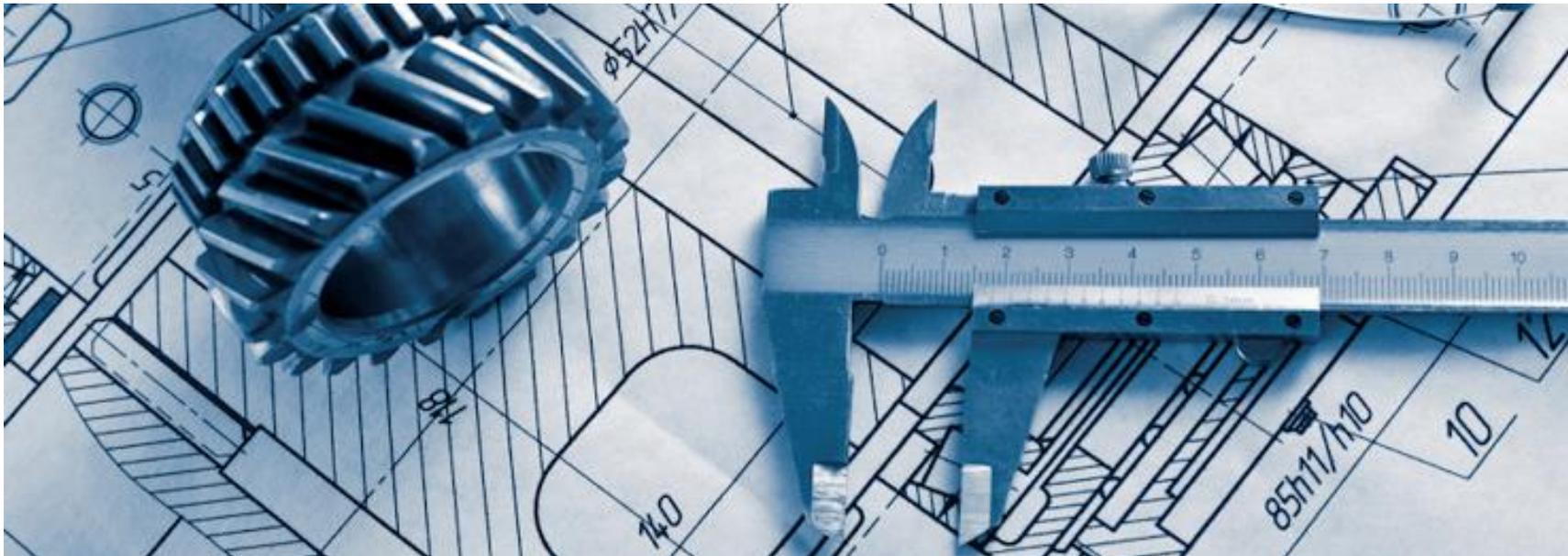


MSc in Engineering



Overview

First fully online masters in Engineering

Supports chartered engineer status

Intended to be a mixture of self study and tutor support

Approval panel work shaped the degree to incorporate collaborative elements

Leadership and Teamwork

RQ1: What is the make-up of leaders' personal managerial qualifications?

RQ2: What qualifications matter most in leadership tasks?

Engineering education or research		Healthcare	
is reliable	5,75	has practical, hands-on, field-related experience	5,71
gives positive feedback	5,58	gives positive feedback	5,71
communicates clearly and unambiguously	5,54	expresses opinions assertively	5,71
inspires and motivates others	5,54	accepts critical feedback	5,57
keeps others up-to-date and shares info	5,54	is balanced and at peace with him/herself	5,57
communicates negative issues face-to-face	5,51	is reliable	5,57
accepts critical feedback	5,48	takes responsibility for the atmosphere	5,43
apologizes when necessary	5,43	communicates negative issues face-to-face	5,43
remains calm and collected even in crises	5,42	makes sure his/her messages are understood	5,43
is good at summarizing	5,37	keeps others up-to-date and shares info	5,43

[Lappalainen \(2017\)](#)

Model of Flexible Learning

Increased autonomy
and self direction by
students is required

As the physical
presence of
tutors diminish

Increased
sophistication of
resources is required

Increased
understanding of
contexts is required

Elements of Online Course

High quality authoring of content in Forge

[http://showcase.uhi.ac.uk/previews/ESIF Eng/Design Process Project Management/](http://showcase.uhi.ac.uk/previews/ESIF_Eng/Design_Process_Project_Management/)

Clear explanation of environment, context and requirements in the digital space

Increased lecturer presence through video and images in Brightspace

Creation of assessed groupwork projects and discussions for experiential teamwork

<https://brightspace.uhi.ac.uk/d2l/home>

Next Steps

Agree the digital spaces which course elements will be located in – rich and varied choices

Look at design elements that re-inforce clarity and good navigation and set a standard for the network



References

Lappalainen, P. (2017) 'Industrial Leadership that Inspires – Managerial Communication as an Emerging Pedagogical Focus in Engineering' *International Journal of Engineering Pedagogy*, 7 (2)

Bostock, J. (2018) 'A Model of Flexible Learning: Exploring Interdependent Relationships Between Students, Lecturers, Resources and Contexts in Virtual Spaces' *JPAAP*, 6 (1)