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Engineering small worlds: micro and nano technologies T356

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*Presentation pattern*    *October to June*

*Course description*

This course demonstrates how matter can be manipulated at the atomic and molecular scale to serve the engineering needs of society for ever-smaller systems acting as intelligent monitors, controllers and micro-environments.

It covers: science at the micro and nano scales; engineering micro and nano-scale systems; structural/inertial devices; electronic/optical devices; and fluidic/biological devices.

The course will teach students about the directions in which micro and nano technologies are being advanced. They will also gain a firm grounding in engineering on both micro and nano scales, through the detailed study of how scientific and engineering principles are applied to the design and manufacture of real devices.

*Person specification*

The person specification for this course should be read in conjunction with the [generic person specification](#) for an associate lecturer at The Open University.

As well as meeting all the requirements set out in the generic person specification, you should have:

- demonstrated experience in a related area
- experience of teaching adult further education and distance teaching
- ability to demonstrate an engineering approach to the understanding of micro- and nano-scale systems
- interest in the interdisciplinary nature of micro- and nano-scale engineering
- willingness to use computer-based packages to illustrate and enliven distance teaching
- experience of the use of electronic media for tutorial teaching
- enthusiasm for teaching engineering.

It would be an advantage to have:

- demonstrated experience in email, online forums and synchronous electronic tuition.
- direct experience of teaching, research or industrial applications of micro or nano technologies.

*Module related details - a full explanation can be found on the website*

Credits awarded to the student for the successful completion of a module:	30
Number of assignments submitted by the student:	4
Method of submission for assignments:	1b
Level of ICT requirements:	2
Number of students likely to be in a standard group:	20
Salary band:	3
Estimated number of hours per teaching week:	3