# http://workspace.imperial.ac.uk/nuclearengineering/Public/Constructionarium2011/P1000808_small.jpgCI9.S.2.3 Low Carbon Technologies: Renewables and nuclear

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| **Course leader:** | Dr Ben Britton & Dr Michael Rushton |
| **Other contributors:** | Dr Mark Wenman |
| Term: | Autumn |
| Contact hours: | 25 |

## 1.0 Aims

This module aims to introduce the students to the new types of systems components involved in low-carbon technologies for heat and energy supply. Nuclear energy is viewed as a services system component. This component is taken with students on MSc Nuclear engineering. Similar treatments are made for photovoltaic and fuel cell applications. Whole systems design concepts will be reinforced

## 2.0 Syllabus

* Nuclear engineering introduction (jointly with Materials Department MSc)
* Fuel cells integrated into building services
* Deployment and development of photovoltaic systems

## 3.0 Intended learning outcomes

On successfully completing this module, students will be able to:

* An understanding of the basics of nuclear energy engineering
* Knowledge of how to integrating Fuel cells in the power and heat networks
* Knowledge of PV systems implications and prospects

## 4.0 Assessment

* Assessment of this module is in the form of progress tests usually given as in class group work and individual essay.
* Assessment of this module examination (coursework) worth 5%

## 5.0 Recommended textbooks

Category as defined by Central Library:

C = Core, S = Supplementary

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| S | Lamarsh, J. R., & Baratta, A.J., (2001) *Introduction to Nuclear engineering*, 3 ed., U.S.A., Prentice Hall |