COMPOSITES CURRICULUM - Unit Information

This unit forms part of the Masters level Composites Curriculum developed by Bristol and Plymouth Universities.

Taught block title	Performance A
Unit title	Fire and ~~Crash~~Post Fire Mechanical Performance of Composites
Level (Credit points)	M (2)
Unit director	Prof Baljinder Kandola
Unit description	
This unit forms part of the Masters level Composites Curriculum.	
Core subjects to be covered	
• The basics of combustion of polymeric materials • Fire performance of composites • Methods of imparting fire retardancy to composites, • Materials selection or design for fire safe composites • Fire testing methodolgies	
Statement of unit aims	
The aims of this unit are to: • To gain an appreciation of the methods used to reduce flammability of composites through an understanding of the underlying processes, and the use of these methods to select appropriate materials in design of composites. • To assess various test methods and instruments used for evaluation of fire performance of materials, and important factors to consider in order to achieve a good result • To address how improving one type of performance for example flammability can have a detrimental effect on another such as mechanical performance.	
Statement of learning outcomes	
Learners will be able to: • Relate composite formulations to their burning behaviours • Understand different methods / techniques for studying burning behaviour of polymeric materials • Relate composites' structures and properties to most appropriate design and selections by taking all parameters into account • Understand different test methods to evaluate fire and fire retardant performance	
Methods of teaching	Lectures/lab classes/demonstrations/class exercises/etc
Assessment details if required	An assignment in the form of the Integrated Learning Package (ILP) will be provided so that participants will be able to complete the work within xx weeks after the start of the module. The ILP consists of two components in which Part 1 examines the candidate's basic understanding of the concept, principles and awareness of the module, Part 2 probes and investigate selected classes of answers which are designed to reflect deep understanding of the subject.
Timetable information	X days of teaching in a block