



2015 YCCSA SUMMER SCHOLARSHIP PROJECT SUBMISSION

This form is for prospective project supervisors to submit their projects to be included in the YCCSA Summer Scholarships Programme for 2015.

It is the purpose of the Summer School that any projects submitted are interdisciplinary in nature.

Date	<i>March 2015</i>
Main Supervisor's Name	<i>Dr Briony Thomas</i>
Main Supervisor's Department	<i>Mechanical Engineering (Leeds) and YCCSA (York)</i>
Co-supervisors' name(s) and Departments	<i>Professor Reidun Twarock - Maths and Biology) Dr Jamie Marsden - Design (Leeds) plus other relevant YCCSA staff</i>
Project Title	<i>Viruses, Maths and Medicine: Designing for a Mathematics Exploratorium</i>
Project Description	<p><i>This project explores the complexities of scientific form and the visualisation of viruses for a Mathematics in Medicine gallery. The work will involve interdisciplinary work with academics in the biological and mathematical sciences (Universities of York), design and engineering (University of Leeds) and MathsWorldUK who are working towards establishing the UK's first mathematics Exploratorium.</i></p> <p><i>As an Associate Fellow at YCCSA, Briony has been exploring complexities in science through the visual arts and the concept of interdisciplinarity within higher education. This project will draw on a number of colleagues in YCCSA to explore complex natural structures leading to the development of novel visual representations through the use of a range of virtual and material techniques including digital representation, animation and prototyping through use of laser cutters, milling machines and 3D printing.</i></p> <p><i>This project will support the development of exhibition material and resources for a 'Maths in Medicine' gallery, intended to improve the public awareness and appreciation of the importance of mathematics.</i></p>
Required skills	<p><i>This project offers opportunities for either science or arts interns. An interest in the visual arts is essential, in addition to knowledge in one of the following areas:</i></p> <ul style="list-style-type: none"><i>1) Mathematical structure, virology or programming</i><i>2) Interactive media, animation or audio-visual effects</i><i>3) Mechanical or electrical engineering and CAD prototyping</i>
Project dates	<i>Monday 13 July 2015 – Friday 11 September 2015.</i>
Other information	
References	<i>Work resulting from last year's project in the York Press and Professor Twarock's website.</i>