

## Biofabrication

**Biofabrication is an emerging field in the area of biomaterials, aiming at the generation of three-dimensional structures from materials including vital cells. This summer school focuses on current trends in biomaterials research and biofabrication. Furthermore, the course includes practical coursework and highlights state-of-the-art, several processing methods of novel biopolymers such as spider silk proteins.**

Biofabrication is an emerging field in the area of biomaterials and tissues engineering, aiming at the generation of 3-dimensional tissue-like structures with biological function from materials including vital cells. Key aspects of achieving this aim is an advanced knowledge on biomaterials, identification of new scientific trends, and adaptation of production processes for the generation of hierarchical scaffold structures, including biomimetic design principles and sustainability aspects.

This summer school is organized in two weeks, while the first week highlights current trends in biomaterials research and Biofabrication approaches, like 3D printing, cell-material interactions and alike. The second week sets a focus on trends in material research in relation to biomaterials, including polymer engineering, biobased polymers, and materials for catalysis and biosensors. Furthermore, the program includes hands-on practical workshops in state-of-the-art equipped laboratories, highlighting several processing methods, aspects of cell culture and analysis, 3D design and printing, as well as novel biomaterials such as spider silk proteins.

As in previous years, a selected mix of experienced lecturers and experts in their field ranges from the organizing Chair of Biomaterials and other groups of both Faculty of Engineering and Faculty of Natural Sciences at the University of Bayreuth, to colleagues from our partner universities and research institutes in Würzburg, Bordeaux/France, and Melbourne/Australia.



### More Information

Below you can find more details on the course coordinators, lecturers and additional information related to the course. If you have any questions on the course or your application, please do not hesitate to contact us!

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