

Utrecht Summer School: ‘3D Printing and Biofabrication’, July 2025				Program	
		Time	Location	Topic	Speaker
Monday	14-Jul	9.30 - 10.00	UMC Heidelberglaan 100 ??? college room	Check in and coffee	
		10.00 - 10.15		Welcome & Course Overview	Jos Malda (UMCU, Netherlands)
		10.15 - 10.40		Student Introductions	Estee Grandidier (UMCU, Netherlands)
		10.40 - 11.10		Basics of Additive Manufacturing	Riccardo Levato (Utrecht University, Netherlands)
		11.10 - 11.45		3D technology in modern healthcare	Chien Nguyn (UMCU, Netherlands)
		11.45 - 12.45		Lunch (Included)	
		12.45 - 13.15		Printing for Engineered Living Materials	TBA
		13.15 - 13.45		Integrating additive manufacturing & AI	Andrew Daly (University of Galway, Ireland)
		13.45 - 14.15		Coffee break	
		14.15 - 14.45		Medical 3D Planning and Printing: Optimal Medical Solutions for Better Clinical Outcomes	Arsham Makaryan (Materialise NV, Belgium)
		14.45 - 16.00		Generation of 3D anatomical models using medical data	Arsham Makaryan (Materialise NV, Belgium)
		16.00 - 16.30		Bioprinting hydrogels to engineer functional tissue mimics	Tina Vermonden
		16.30 - 17:20		Bioprinting at organ scale	TBA
		17.20 - 17.30		Explaining assignments	Jos Malda / Riccardo Levato
Tuesday	15-Jul	8.15 - 9.00	University of Applied Science		
Workshop 3D Printing		9.00 – 9.30	Location: Padualaan 99	Introduction fablab	Joris van Tubergen
		10.00 - 12.00	Start workshops, choosing 1 out of 3.	1. Getting to know the firmware: introduction to gcode and using it on bioprinting, z-corp) 2. workflow introduction, 3D drawing (tinkercad) & printing 3. Hands-on machinework with different material (porcelain, chocolate, PLA)	1. Gabriel Groesbacher 2. Bram Nijhof 3. Joris van Tubergen
		12.00 - 13.00		Lunch with lecture about scanning for protheses	
		13.00 – 15.30	Start workshops, choosing 1 out of 3.	1. Getting to know the firmware: introduction to gcode and using it on bioprinting, z-corp) 2. workflow introduction, 3D drawing (tinkercad) & printing 3. Hands-on machinework with different material (porcelain, chocolate, PLA)	1. Gabriel Groesbacher 2. Bram Nijhof 3. Joris van Tubergen
		15.45 - 17.45	Start workshops, choosing 1 out of 3.	1. Getting to know the firmware: introduction to gcode and using it on bioprinting, z-corp) 2. workflow introduction, 3D drawing (tinkercad) & printing 3. Hands-on machinework with different material (porcelain, chocolate, PLA)	1. Gabriel Groesbacher 2. Bram Nijhof 3. Joris van Tubergen
		18.00	End		
Wednesday	16-Jul		UMC		
Applications of 3D biofabrication		08.30 - 09.00	Heidelberglaan 100 ??? college room	Introduction to Regenerative Medicine & Stem Cells	Bernard Roelen (Utrecht University, Netherlands)
		09.00 - 09.45		From biomedical bioprinting to biotechnology and towards space	Michael Gelinsky (TU Dresden, Germany)
		09.45 - 10.10		Coffee break	
		10.10 - 10.45		Two photon lithography in biofabrication	Angelo Accardo (TU Delft, Nethelands)
		10.45 - 11.45		Robotics technologies for bioprinting	Giovanni Vozzi (University of Pisa, Italy)
		11.45 - 13.00		Meet the expert lunch (Included)	
		13.00 - 13.40		Microfluidics-based bioprinting	Wojciech Świąszkowski (TU Warsaw, Poland)
		13.40 - 14.10		Regulatory aspects in biofabrication and medical 3D printing	Hanneke Later Nijland (Genome Lawyers)
		14.10 -14.40		Organ on-a-chip technologies	Andries van der Meer (Twente University, Netherlands)
		14.40 -15.00		Coffee break	Malgorzata Wlodarczyk-Biegun (RU Groningen)
		15.00 -15.30		Electrowriting in tissue engineering	Juergen Groll (Wuerzburg University, Germany)
		15.30 - 17.00		Work on assignment	
Thursday	17-Jul		Hubrecht / RMCU Uppsalalaan 8		
Applications of 3D		8.45 - 09.15	Auditorium 08.30 -12.45	Volumetric Bioprinting for Fabrication of Highly Complex Living Structures	Paulina Nunez Bernal (UMCU, Netherlands)
		09.15 - 9.45		Biofabrication to boost cellular agriculture	Lorenzo Moroni (Maastricht University, Netherlands)
		9.45 - 10.00		Coffee break	
		10.15- 10.50		Printing cartilage	Jos Malda (UMCU, Netherlands)
		10.50 - 11.15		Adult Stem Cells for Advanced In Vitro Models and Whole Organ Engineering.	Bart Spee (Utrecht University, Netherlands)
		11.15 - 11.45		How to advance myocardial repair - Printing cardiac tissue?	Alain van Mil (UMC Utrecht, Netherlands)
		11.45 - 12.15		Building a (vascularized) kidney proximal tubule	Anne Metje van Genderen (Utrecht University, Netherlands)
		12.00 - 13.00		Lunch (included)	
		13.00 - 14.00		Perspectives in the biofabrication industry	Jasper van Hoorik (BioINX), Anke de Leeuw (regenHu)
		14.00 - 17.15		Laboratory tour and 3D bioprinting workshop	
				Station 1 - Extrusion printing	Paulina Nunez Bernal
				Station 2 - Melt Electrowriting	Lennard Spauwen
				Station 3 - Volumetric printing and DLP	Sammy Florczak
				Station 4 - LIFT printing	Nuria Gines Rodriguez
				Station 5 - Microfluidics and Organ-on-a-chip	Mohammad Jouy Bar
				Station 6 - Meet the Industry (BioINX, Poietis, BICO, RegenHU)	Industry representatives + booth in the green area
		17.15 - 18.00		Work on assignment	
Friday	18-Jul	9.00 - 9.30	UMC	Key collection	Riccardo Levato
Presentations Assignments Wrap up		9.30 - 10.30	Heidelberglaan 100	Keynote Lecture - Regeneration and Biofabrication: learning from Nature	Leo Otsuki (IMBA, Austria)
		10.30 - 12.00	??? college room	Student presentations	
		12.00 - 12.15		Announcement of award for best presentation	
		12.15 - 12.45		Wrap-up	
		12.45 - 14.00		Class Lunch (included)	