Utrecht Summer School: '3D Printing and Biofabrication', July 2025			Program		
	Time	**Location**	**Topic**		**Speaker**
Monday 14-Jul	9.30 - 10.00	**UMC**	Check in and coffee		
	10.00 - 10.15	**Heidelberglaan 100**	Welcome & Course Overview		Jos Malda (UMCU, Netherlands)
	10.15 - 10.40	**??? college room**	Student Introductions		Estee Grandidier (UMCU, Netherlands)
	10.40 - 11.15		Basics of Additive Manufacturing		Riccardo Levato (Utrecht University, Netherlands)
	11.15 - 11.45		3D technology in modern healthcare		Chien Nguyn (UMCU, Netherlands)
	11.45 - 12.45		**Lunch (Included)**		
	12.45 - 13.15		Multiphoton lithography and high definition 3D printing		Aleksandr Ovsianikov (TU Wien, Austria)
	13.15 - 13.45		Integrating additive manufacturing & AI		Andrew Daly (University of Galway, Ireland)
	13.45 - 14.15		Medical 3D Planning and Printing: Optimal Medical Solutions for Better Clinical Outcomes		Arsham Makaryan (Materialise NV, Belgium)
	14.15 - 14.30		**Coffee Break**		
	14.30 - 15.45		Generation of 3D anatomical models using medical data		Arsham Makaryan (Materialise NV, Belgium)
	15.45 - 16.15		Bioprinting hydrogels to engineer functional tissue mimics		Tina Vermonden
	16.15 - 17:05		Bioprinting at organ scale		Mark Skylar-Scott (Stanford University, USA)
	17.05 - 17.15		Explaining assignments		Jos Malda / Riccardo Levato
Tuesday 15-Jul	8.15 - 9.00	**University of Applied Science**			
	9.00 – 9.30	**Location: Padualaan 99**	Introduction fablab		Joris van Tubergen
Workshop 3D Printing	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**			
	08.30 - 09.00	**Heidelberglaan 100**	Introduction to Regenerative Medicine & Stem Cells		Bernard Roelen (Utrecht University, Netherlands)
	09.00 - 09.45	**??? college room**	From biomedical bioprinting to biotechnology and towards space		Michael Gelinsky (TU Dresden, Germany)
	09.45 - 10.00		**Coffee break**		
	10.00 - 10.30		Two photon lithography for neural tissue engineering		Angelo Accardo (TU Delft, Nethelands)
	10.30 - 11.15		Robotics technologies for bioprinting		Giovanni Vozzi (University of Pisa, Italy)
	11.15 - 11.45		Electrowriting in tissue engineering and biofabrication		Tomasz Jungst (Wuerzburg University, Germany)
	11.45 - 13.00		**Meet the expert lunch (Included)**		
Applications of 3D biofabrication	13.00 - 13.45		Microfluidics-based bioprinting		Wojciech Święszkowski (TU Warsaw, Poland)
	13.45 - 14.15		Regulatory aspects in biofabrication and medical 3D printing		Hanneke Later Nijland (Genome Lawyers)
	14.15 -14.45		Organ on-a-chip technologies		Andries van der Meer (Twente University, Netherlands)
	14.45 -15.00		**Coffee break**		
	15:00-15:30		TBA		Malgorzata Wlodarczyk-Biegun (RU Groningen)
	15.30 -16.00		TBA		Juergen Groll (Wuerzburg University, Germany)
	16.00 - 17.30		Work on assignment		
Thursday 17-Jul		**Hubrecht / RMCU**			
	8.45 - 09.15	**Uppsalalaan 8**	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)
Applications of 3D	**9.45 - 10.00**	*Auditorium 08.30 -12.45*	**Coffee break**		
	10.00 - 10.30		Printing cartilage		Jos Malda (UMCU, Netherlands)
	10.30 - 11.00		Adult Stem Cells for Advanced In Vitro Models and Whole Organ Engineering.		Bart Spee (Utrecht University, Netherlands)
	11.00 - 11.30		How to advance myocardial repair - Printing cardiac tissue?		Alain van Mil (UMC Utrecht, Netherlands)
	11.30 - 12.00		Building a (vascularized) kidney proximal tubule		Anne Metje van Genderen (Utrecht University, Netherlands)
	12.00 - 13.00		**Lunch (included)**		
	13.00 - 14.00	*Room 3*	Perspectives in the biofabrication industry		Jasper van Hoorik (BioINX), Anke de Leeuw (regenHu), Eva van Ingen (ICAT)
	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 - Volumetrci printing and DLP		Sammy Florczak
			Station 4 - LIFT printing		Nuria Gines Rodriguez
			Station 5 - Microfluidics and Organ-on-a-chip		Mohammad Jouybar
			Station 6 - Meet the Industry (BioINX, RegenHU, ICAT)		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
	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		
Presentations Assignments Wrap up	12.00 - 12.15		Announcement of award for best presentation		
	12.15 - 12.45		Wrap-up		
	12.45 - 14.00		**Class Lunch (included)**		