Annex 2a: Model program schedule for the Flexible and Intelligent Products and Processes strand_AFB 11.07.2022

hrs/wk	1st semester winter semester	2nd semester summer semester	3rd semester winter semester	4th semester summer semester
1	Substractive Manufacturing 2L + 2T 6 credit points	Welding Manufacturing 2L + 2T 6 credit points	Product Design and Process Planning for Casting 2L + 2T 6 credit points	Master's Thesis incl. Colloquium 30 credit points
2				
3				
4				
5	System Automation 3L + 1T 6 credit points	Computer Integrated Manufacturing incl. Lab 2L + 1T + 1lab 6 credit points	Interdisciplinary Research Project 1L + 3lab 6 credit points	
6				
7				
8				
9	Wireless Sensor Networks 3L + 1T 6 credit points	Big Data Management and Analytics 3L + 1T 6 credit points	Advanced Cyber Phyiscal Systems 3L +1T 6 credit points	
10				
11				
12				
13	Interdisciplinary and Cross-Culture Collaboration 6 credit points	12 credit points (2 modules) from electives catalogue for Flexible and Intelligent Products and Processes strand	12 credit points (2 modules) from electives catalogue for Flexible and Intelligent Products and Processes strand	
14				
15				
16				
17				
18				
19	Interdisciplinary Engineering Projects & Intelligent Manufacturing Seminar 1S + 3lab 6 credit points			
20				
21				
22				
Total hrs/wk	22	20	20	20
Total credit points	30	30	30	30

Strand: Flexible and Intelligent Products and Processes

	Credit points
Discipline-specific expertise and methodology	**Σ 104**
Foundations of manufacturing engineering	30
Foundations of information technology	18
Interdisciplinary and methodological foundations	8
Focuses in engineering (strand)	24
Methodology of research and work (master's thesis)	24
Personal competence and social skills	**Σ 16**
Team and project work	4
Knowledge of language and culture	6
Applied working methods (master's thesis)	6

Annex 2b: Model program schedule for the Manufacturing Analytics and Optimization strand_AFB 11.07.2022

hrs/wk	1st semester winter semester	2nd semester summer semester	3rd semester winter semester	4th semester summer semester
1	Substractive Manufacturing 2L + 2T 6 credit points	Welding Manufacturing 2L + 2T 6 credit points	Product Design and Process Planning for Casting 2L + 2T 6 credit points	Master's Thesis 30 credit points
2				
3				
4				
5	System Automation 3L + 1T 6 credit points	Computer Integrated Manufacturing incl. Lab 2L + 1T + 1lab 6 credit points	Interdisciplinary Research Project 1L + 3lab 6 credit points	
6				
7				
8				
9	Wireless Sensor Networks 3L + 1T 6 credit points	Big Data Management and Analytics 3L + 1T 6 credit points	Advanced Cyber Phyiscal Systems 3L +1T 6 credit points	
10				
11				
12				
13	Interdisciplinary and Cross-Culture Collaboration 6 credit points	12 credit points (2 modules) from the electives catalogue for the Manufacturing Analytics and Optimization strand	12 credit points (2 modules) from the electives catalogue for the Manufacturing Analytics and Optimization strand	
14				
15				
16				
17				
18				
19	Interdisciplinary Engineering Projects & Intelligent Manufacturing Seminar 1S + 3lab 6 credit points			
20				
21				
22				
Total hrs/wk	21	20	20	20
Total credit points	30	30	30	30

Strand: Manufacturing Analytics and Optimization	Credit points
Discipline-specific expertise and methodology	**Σ 104**
Foundations of manufacturing engineering	30
Foundations of information technology	18
Interdisciplinary and methodological foundations	8
Focuses in engineering (strand)	24
Methodology of research and work (master's thesis)	24
Personal competence and social skills	**Σ 16**
Team and project work	4
Knowledge of language and culture	6
Applied working methods (master's thesis)	6