

Masterstudiengang Networked Production Engineering an der RWTH Aachen (IntAc)

PO 2020

01.09.2021

| Compulsory Courses | | | | | | | | | | |
|------------------------|-----------|--|----|---|-----|----------|-----------------|-----------|------|-------|
| Responsible for Module | Lecturers | Module | CP | L | P/L | Σ SWS | Summer / Winter | Module ID | Σ CP | Σ SWS |
| Schmitt | Schmitt | Quality Management | 6 | 2 | 2 | 4 | w | 4011453 | 28 | 20 |
| Klocke | Klocke | Manufacturing Technology I | 5 | 2 | 2 | 4 | w | 4011458 | | |
| Klocke | Klocke | Manufacturing Technology II | 6 | 2 | 2 | 4 | s | 4011447 | | |
| Brecher | Brecher | Mechatronics and Control Techniques for Production | 6 | 2 | 2 | 4 | w | 4011451 | | |
| Schuh | Schuh | Production Management B | 5 | 2 | 2 | 4 | s | 4011472 | | |
| Language Courses | | Language Course (1) * | 2 | 1 | 1 | 2 | sw | 4021266 | 6 | 6 |
| | | Language Course (2) * | 2 | 1 | 1 | 2 | sw | 4021267 | | |
| | | Linguistic Elective ** | 2 | 1 | 1 | 2 | sw | 4024418 | | |
| or | | Internship (Practical Experience) | 12 | | | 12 weeks | | | 24 | |
| | | Elective Courses | 12 | | | | | | | |
| | | Master Thesis | 30 | | | | | | 30 | |

* Technical English

** If not proficient/ native speaker

| Additive Manufacturing | | | | | | | | | | |
|------------------------|---------------|--|----|---|-----|-------|-----------------|-----------|------|-------|
| Compulsory Courses | | | | | | | | | | |
| Responsible for Module | Lecturers | Module | CP | L | P/L | Σ SWS | Summer / Winter | Module ID | Σ CP | Σ SWS |
| Schleifenbaum | Schleifenbaum | Additive Manufacturing: Technologies and Processes | 6 | 2 | 2 | 4 | w | 4017421 | 29 | 19 |
| Schleifenbaum | Schleifenbaum | Additive Manufacturing 2 - Engineering and Design | 6 | 2 | 2 | 4 | s | 4020490 | | |
| N. N. | Schleifenbaum | Materials for Additive Manufacturing | 5 | 2 | 1 | 3 | w | 4022684 | | |
| N.N. | N.N. | Laser Applications | 6 | 2 | 2 | 4 | w | 4022685 | | |
| Reisgen | Reisgen | Welding and Joining Technologies | 6 | 2 | 2 | 4 | s | 4011441 | | |
| Elective Courses | | | | | | | | | | |
| Abel | Abel | Control Engineering | 5 | 2 | 1 | 3 | w | 4011476 | 15 | * |
| Schuh | Dannapfel | International Factory Planning | 6 | 2 | 2 | 4 | s | 4011481 | | |
| Klocke | Brumm | Gear and Transmission Technology | 6 | 2 | 2 | 4 | w | 4011427 | | |
| Schuh | Schuh / Stich | Industrial Logistics | 5 | 2 | 1 | 3 | s | 4011473 | | |
| Markert | Markert | Intelligent Monitoring of Engineering Systems | 5 | 2 | 1 | 3 | s | 4021494 | | |
| Schulz | Schulz | Modelling, Model Reduction and Simulation in Laser Processing II | 5 | 2 | 2 | 4 | w | 4014454 | | |
| Schulz | Schulz | Modelling, Model Reduction and Simulation in Laser Processing I | 5 | 2 | 2 | 4 | s | 4013861 | | |
| Corves | Corves | Multibody Dynamics | 6 | 2 | 2 | 4 | s | 4011462 | | |
| N.N. | N.N. | Process Analysis in Manufacturing Technology | 5 | 2 | 1 | 3 | w | 4011047 | | |
| Schmitt | Schmitt | Production Metrology | 5 | 2 | 2 | 4 | s | 4011467 | | |
| N.N. | N.N. | Simulation Techniques in Manufacturing Technology | 6 | 2 | 1 | 3 | w | 4012413 | | |
| Jacobs | Jacobs | Tribology | 6 | 2 | 2 | 4 | w | 4011475 | | |

* The total amount of weekly contact hours (SWS) depends on the modules selected.

| Electric Mobility Production | | | | | | | | | | |
|------------------------------|-------------|--|----|---|-----|-------|-----------------|-----------|------|-------|
| Compulsory Courses | | | | | | | | | | |
| Responsible for Module | Lecturers | Module | CP | L | P/L | Σ SWS | Summer / Winter | Module ID | Σ CP | Σ SWS |
| N.N. | N.N. | Battery Production | 3 | 1 | 1 | 2 | s | 4022698 | 21 | 14 |
| Kampker | Kampker | Electric Mobility Components Production | 3 | 1 | 1 | 2 | s | 4016093 | | |
| Klocke | Brumm | Gear and Transmission Technology | 6 | 2 | 2 | 4 | w | 4011427 | | |
| N.N. | N.N. | Produktion elektrischer Antriebe | 3 | 1 | 1 | 2 | s | 4020846 | | |
| Reisgen | Reisgen | Welding and Joining Technologies | 6 | 2 | 2 | 4 | s | 4011441 | | |
| Elective Courses | | | | | | | | | | |
| Jeschke, S. | Jeschke, S. | Advanced Software Engineering | 5 | 2 | 2 | 4 | w | 4011468 | 23 | * |
| Abel | Abel | Control Engineering | 5 | 2 | 1 | 3 | w | 4011476 | | |
| Schuh | Dannapfel | International Factory Planning | 6 | 2 | 2 | 4 | s | 4011481 | | |
| Klocke | Klocke | High Precision Glass Optics Manufacturing | 6 | 2 | 2 | 4 | w | 4017864 | | |
| Wilstermann | Wilstermann | Industrial product development process - battery system | 5 | 2 | 2 | 4 | s | 6022858 | | |
| Markert | Markert | Intelligent Monitoring of Engineering Systems | 5 | 2 | 1 | 3 | s | 4021494 | | |
| Schulz | Schulz | Modelling, Model Reduction and Simulation in Laser Processing II | 5 | 2 | 2 | 4 | w | 4014454 | | |
| Schulz | Schulz | Modelling, Model Reduction and Simulation in Laser Processing I | 5 | 2 | 2 | 4 | s | 4013860 | | |
| Schulz | Schulz | Modelling, Model Reduction and Simulation in Laser Processing II | 5 | 2 | 2 | 4 | s | 4013861 | | |
| Corves | Corves | Multibody Dynamics | 6 | 2 | 2 | 4 | s | 4011462 | | |
| N.N. | N.N. | Laser Applications | 6 | 2 | 2 | 4 | w | 4022685 | | |
| De Doncker | De Doncker | Principles of Power Electronics | 4 | 3 | 1 | 4 | w | 6019099 | | |
| N.N. | N.N. | Process Analysis in Manufacturing Technology | 5 | 2 | 1 | 3 | w | 4011047 | | |
| N.N. | N.N. | Simulation Techniques in Manufacturing Technology | 6 | 2 | 1 | 3 | w | 4012413 | | |
| Jacobs | Jacobs | Tribology | 6 | 2 | 2 | 4 | w | 4011475 | | |

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| Smart Factory | | | | | | | | | | |
|------------------------|---------------|---|----|---|-----|-------|-----------------|-----------|------|-------|
| Compulsory Courses | | | | | | | | | | |
| Responsible for Module | Lecturers | Module | CP | L | P/L | Σ SWS | Summer / Winter | Module ID | Σ CP | Σ SWS |
| Kowalewski | Kowalewski | Embedded Systems | 6 | 3 | 1 | 4 | s | 1215690 | 23 | 16 |
| Schuh | Dannapfel | International Factory Planning | 6 | 2 | 2 | 4 | s | 4011481 | | |
| N.N. | Rumpe | Model-based Systems Engineering | 6 | 2 | 3 | 5 | w | 1222882 | | |
| N.N. | N.N. | Process Analysis in Manufacturing Technology | 5 | 2 | 1 | 3 | w | 4011047 | | |
| Elective Courses | | | | | | | | | | |
| Jeschke, S. | Jeschke, S. | Advanced Software Engineering | 5 | 2 | 2 | 4 | w | 4011468 | 21 | * |
| Abel | Abel | Control Engineering | 5 | 2 | 1 | 3 | w | 4011476 | | |
| Klocke | Brumm | Gear and Transmission Technology | 6 | 2 | 2 | 4 | w | 4011427 | | |
| Klocke | Klocke | High Precision Glass Optics Manufacturing | 6 | 2 | 2 | 4 | w | 4017864 | | |
| Schuh | Schuh / Stich | Industrial Logistics | 5 | 2 | 1 | 3 | s | 4011473 | | |
| Wilstermann | Wilstermann | Industrial product development process - battery sy | 5 | 2 | 2 | 4 | s | 6022858 | | |
| Markert | Markert | Intelligent Monitoring of Engineering Systems | 5 | 2 | 1 | 3 | s | 4021494 | | |
| Schulz | Schulz | Modelling, Model Reduction and Simulation in Lase | 5 | 2 | 2 | 4 | w | 4014454 | | |
| Schulz | Schulz | Modelling, Model Reduction and Simulation in Lase | 5 | 2 | 2 | 4 | s | 4013860 | | |
| Schulz | Schulz | Modelling, Model Reduction and Simulation in Lase | 5 | 2 | 2 | 4 | s | 4013861 | | |
| Corves | Corves | Multibody Dynamics | 6 | 2 | 2 | 4 | s | 4011462 | | |
| Schmitt | Schmitt | Production Metrology | 5 | 2 | 2 | 4 | s | 4011467 | | |
| Hüsing | Hüsing | Robotic Systems | 5 | 2 | 2 | 4 | w | 4018563 | | |
| N.N. | N.N. | Simulation Techniques in Manufacturing Technolog | 6 | 2 | 1 | 3 | w | 4012413 | | |
| Jacobs | Jacobs | Tribology | 6 | 2 | 2 | 4 | w | 4011475 | | |
| Reisgen | Reisgen | Welding and Joining Technologies | 6 | 2 | 2 | 4 | s | 4011441 | | |

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