

Industrial Engineering and Management (IEM) BSc

Matriculation Fall 2020

Program-Specific Modules							Jacobs Track Modules (General Education)								
Module Code	Module	Type	Assessment	Period	Status ¹	Sem.	CP	Module Code	Module	Type	Assessment	Period	Status ¹	Sem.	CP
Year 1 - CHOICE							Year 1 - CHOICE								
45							15								
<i>Take the mandatory CHOICE modules listed below, this is a requirement for IEM program.</i>							<i>Take one of the two mandatory elective methods modules listed below.</i>								
Unit: General Industrial Engineering and Logistics (Default minor)							Unit: Methods / Skills								
15							10								
CH-241	Module: General Logistics				m	1	7.5	JTMS-MAT-08	Module: Applied Calculus				m	1	5
CH-241-A	Introduction to Logistics & SCM	Lecture	Written examination	Final exam period			5	JTMS-08	Applied Calculus	Lecture	Written examination	Examination period			
CH-241-B	Logistics Lab	Lab	and project	During the semester			2.5	JTMS-MAT-11	Module: Finite Mathematics				m	2	5
CH-240	Module: General Industrial Engineering				m	2	7.5	JTMS-11	Finite Mathematics	Lecture	Written examination	Examination period			
CH-240-A	Industrial Engineering	Lecture	Written examination	Examination period			5								
CH-240-B	Basics of Manufacturing Technology	Lab	and project	During the semester			2.5								
CH-300	Module: Introduction to International Business				m	1	7.5								
CH-300-A	Introduction to International Business Lecture	Lecture	Written examination	Examination period			5								
CH-300-B	Introduction to International Business Seminar	Seminar	and case studies	During the semester			2.5								
CH-301	Module: Introduction to Finance and Accounting				m	2	7.5								
CH-301-A	Introduction to Finance	Lecture					2.5								
CH-301-B	Introduction to Accounting	Lecture	Written examination	Final exam period			2.5								
CH-301-C	Finance and Accounting Tutorial	Tutorial					2.5								
Unit: CHOICE (own selection)							Unit: Language								
1/2							5								
<i>Take two further CHOICE modules from those offered for all other study programs.²</i>							<i>German is the default language. Native German speakers take modules in another offered language.</i>								
Year 2 - CORE							Year 2 - CORE								
45							15								
<i>Take all CORE modules listed below.</i>							<i>Take one of the two mandatory elective methods modules listed below.</i>								
Unit: Advanced Industrial Engineering (Default minor)							Unit: Methods / Skills								
15							10								
CO-582	Module: Process Modelling & Simulation				m	3	5	JTMS-SKI-14	Module: Programming in Python				m	3	5
CO-582-A	Process Modelling & Simulation	Lab	Project	During the semester			5	JTMS-14	Programming in Python	Lecture	Written examination	Examination period			
CO-581	Module: Product & Production System Design				m	3+4	5	JTMS-MET-03	Module: Applied Statistics with R				m	4	5
CO-581-A	Fundamentals of Engineering Design	Lab	Written examination	Examination period			3	JTMS-03	Applied Statistics with R	Lecture/Lab	Written examination	Examination period			
CO-581-B	Advanced Production System Design	Lecture	and project	During the semester			2.5								
CO-580	Module: Production Planning & Control				m	4	5								
CO-580-A	Production Planning & Control	Lecture	Written examination	Examination period			5								
Unit: Advanced Industrial Management							Unit: Language								
15							5								
CO-583	Module: Operations Research				m	3	5	JTLA-xxx	Module: Language 3				m	3	2.5
CO-583-A	Operations Research	Lecture	Written examination	Examination period			5	JTLA-xxx	Language 3	Seminar	Various	Various			me
CO-584	Module: Lean Supply Management				m	3+4	5	JTLA-xxx	Module: Language 4				m	4	2.5
CO-584-A	Advanced Lean Methods	Seminar	Written examination	Examination period			3	JTLA-xxx	Language 4	Seminar	Various	Various			me
CO-584-B	Purchasing & Supply Management	Seminar	and term paper	During the semester			2.5								
CO-586	Module: Data Management and Analytics in Industry 4.0				m	4	5								
CO-586-A	Data Management and Analytics in Industry 4.0	Lecture	Project	During the semester			5								
Unit: Management							Unit: Language								
15							5								
CO-600	Module: Applied Project Management				m	3	7.5								
CO-600-A	Applied Project Management Lecture	Lecture					5								
CO-600-B	Applied Project Management Seminar	Seminar	Presentation	During the semester			2.5								
CO-601	Module: International Strategic Management				m	4	7.5								
CO-601-A	International Strategic Management Lecture	Lecture					5								
CO-601-B	International Strategic Management Seminar	Seminar	Term paper	During the semester			2.5								
Year 3 - CAREER							Year 3 - CAREER								
60							60								
Module Code							Module Code								
Module: Guided Industrial Project / Mandatory Internship							Module: Guided Industrial Project / Mandatory Internship								
m							m								
5							5								
30							30								
CA-INT-901	Guided Industrial Project / Mandatory Internship	Internship	Report and poster presentation (Business plan)	During the 5th semester											
CA-IEM-800	Module: Thesis / Seminar IEM				m	6	15								
CA-IEM-800-T	Thesis IEM	Thesis	Thesis	15 th of May			12								
CA-IEM-800-S	Seminar IEM	Seminar	Poster presentation	During the semester			3								
Unit: Specialization IEM							Unit: Specialization IEM								
m							m								
6							6								
15							15								
<i>Take a total of 15 CP of specialization modules</i>							<i>Take a total of 15 CP of specialization modules</i>								
CA-S-IEM-801	Industry 4.0 and Blockchain Technologies	Lecture/Seminar	Project	During the semester	me		5								
CA-S-IEM-802	Advanced Product Design	Lab	Project	During the semester	me		5								
CA-S-IEM-803	Supply Chain Design	Seminar	Project	During the semester	me		2.5								
CA-S-IEM-804	Integrated Decision Making in Supply Chain Management	Seminar	Project	During the semester	me		2.5								
CA-S-IEM-805	Distribution & E-Commerce	Lecture	Project	During the semester	me		2.5								
CA-S-IEM-806	Law of Transportation, Forwarding and Logistics	Lecture	Written examination	Examination period	me		2.5								
Tota CP							Tota CP								
180							180								

¹ Status (m = mandatory, me = mandatory elective)

² For a full listing of all CHOICE / CORE / CAREER / Jacobs Track modules please consult the CampusNet online catalogue and/or the study program handbooks