

Appendix 1a - Mandatory Module and Examination Plan for World Track

| Intelligent Mobile Systems – World Track | | | | | | | | | | | | | | |
|---|---|----------|---------|-----------|--|--|--|---|------------------------------------|-----------|------------|----------|------------|---|
| Matriculation Fall 2018 | | | | | | | | | | | | | | |
| Program-Specific Modules | | | | | Jacobs Track Modules (General Education) | | | | | | | | | |
| Type | Status ¹ | Semester | Credits | | Type | Status ¹ | Semester | Credits | | | | | | |
| Year 1 - CHOICE | | | | | 45 | | | | | 20 | | | | |
| <i>Take the mandatory CHOICE module listed below, this is a requirement for the IMS program.</i> | | | | | | | | | | | | | | |
| CH09-IntroIMS | Module: Introduction to Intelligent Mobile Systems | | | m | 15 | JT-ME-MethodsMath | Module: Methods / Mathematics | | | m | 7,5 | | | |
| CH09-320103 | General Intelligent Mobile Systems I | Lecture | m | 1 | 5 | JT-ME-120103 | Calculus I | Lecture | m | 1 | 2,5 | | | |
| CH09-320113 | Introduction to Intelligent Mobile Systems Lab I | Lab | m | 1 | 2,5 | JT-ME-120104 | Calculus II | Lecture | m | 1 | 2,5 | | | |
| CH09-320104 | General Intelligent Mobile Systems II | Lecture | m | 2 | 5 | JT-ME-120122 | Foundations of Linear Algebra I | Lecture | m | 2 | 2,5 | | | |
| CH09-320114 | Introduction to Intelligent Mobile Systems Lab II | Lab | m | 2 | 2,5 | JT-SK-Skills | Module: Skills | | | m | 5 | | | |
| Module: CHOICE (own selection) | | | | | e | 1/2 | 30 | JT-SK-320111 | Programming in C I | Lecture | m | 1 | 2,5 | |
| <i>Students take two further CHOICE modules from those offered for all other study programs. ²</i> | | | | | | | | JT-SK-320112 | Programming in C II | Lecture | m | 2 | 2,5 | |
| | | | | | | | | JT-TA-TriArea | Module: Triangle Area | | | m | 2,5 | |
| | | | | | | | | Take one course from the triangle (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT) area. Each counts 2,5 ECTS ³ | | | me | 1/2 | 2,5 | |
| | | | | | | | | JT-LA-Language | Module: Language | | | m | 5 | |
| | | | | | | | | Take two German courses (2,5 ECTS each). Native German speakers take courses in another offered language | | | Seminar | me | 1/2 | 5 |
| | | | | | | | | CA01-CarAdv | Career Advising⁴ | | | m | | |
| Year 2 - CORE | | | | | 45 | | | | | 20 | | | | |
| <i>Take all three modules <u>or</u> replace one with a CORE module from a different study program. ²</i> | | | | | | | | | | | | | | |
| CO22-IntelSys | Module: Intelligent Systems | | | me | 15 | JT-ME-MethodsMath | Module: Methods / Mathematics | | | m | 7,5 | | | |
| CO22-320671 | Computer Vision | Lecture | m | 3 | 5 | JT-ME-120201 | Elements of Probability | Lecture | m | 3 | 2,5 | | | |
| CO22-320311 | Robotics | Lecture | m | 4 | 5 | JT-ME-120113 | Foundations of Linear Algebra II | Lecture | m | 3 | 2,5 | | | |
| CO22-320372 | Machine Learning | Lecture | m | 4 | 5 | JT-ME-120202 | Numerical Methods I | Lecture | m | 4 | 2,5 | | | |
| CO23-AutoControl | Module: Automation and Control | | | me | 15 | JT-TA-TriArea | Module: Triangle Area | | | m | 7,5 | | | |
| CO23-320301 | Control Systems | Lecture | m | 3 | 5 | Take three courses from the triangle (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT) area. Each counts 2,5 ECTS ³ | | | me | 3/4 | 7,5 | | | |
| CO26-300312 | Embedded Systems Lab | Lab | m | 3 | 5 | JT-LA-Language | Module: Language | | | m | 5 | | | |
| CO23-320203 | Automation | Lecture | m | 4 | 5 | Take two German courses (2,5 ECTS each). Native German speakers take courses in another offered language | | | Seminar | me | 3/4 | 5 | | |
| CO24-PlanOpt | Module: Planning and Optimization | | | me | 15 | CA01-CarAdv | Career Advising⁴ | | | m | | | | |
| CO29-080202 | Operations Research | Lecture | m | 3 | 5 | | | | | | | | | |
| CO24-300491 | Optimization | Lecture | m | 4 | 5 | | | | | | | | | |
| CO24-320521 | Artificial Intelligence | Lecture | m | 3 | 5 | | | | | | | | | |
| Year 3 - CAREER | | | | | 45 | | | | | 5 | | | | |
| CA02 / CA03 | Module: Internship / Study Abroad | | | m | 5 | 20 | JT-TA-TriArea | Module: Triangle Area | | | m | 5 | | |
| | | | | | | | Take two courses from the triangle (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT) area. Each counts 2,5 ECTS ³ | | | me | 6 | 5 | | |
| CA09-IMS | Module: Project/Thesis IMS | | | m | 15 | CA01-CarAdv | Career Advising⁴ | | | m | | | | |
| CA09-320303 | Project IMS | | m | 6 | 5 | | | | | | | | | |
| CA09-320304 | Thesis IMS | | m | 6 | 10 | | | | | | | | | |
| CA-S-IMS | Module: Specialization Area IMS | | | m | 10 | | | | | | | | | |
| | | | | | | | Take 10 ECTS of specialization courses ² | | | me | 5/6 | 10 | | |
| Total ECTS | | | | | | | | | 180 | | | | | |

¹ Status (m = mandatory, e = elective, 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 module handbook (on our website).

³ You are required to take six Triangle Area courses in total. Select two from each of the three triangle areas (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT).

⁴ Mandatory component of the Jacobs University's Counseling and Advising Scheme.

Appendix 1b - Mandatory Module and Examination Plan for Campus Track

| Program-Specific Modules | | | | | Jacobs Track Modules (General Education) | | | | | | |
|---|---|---------------------|----------|------------|--|--|--------------------------------------|--------------------------------------|----------|------------|------------|
| | Type | Status ¹ | Semester | Credits | | Type | Status ¹ | Semester | Credits | | |
| Year 1 - CHOICE | | | | | Year 1 - CHOICE | | | | | | |
| 45 | | | | | 20 | | | | | | |
| <i>Take the mandatory CHOICE module listed below, this is a requirement for the IMS program.</i> | | | | | | | | | | | |
| CH09-IntroIMS | Module: Introduction to Intelligent Mobile Systems | | | m | | 15 | JT-ME-MethodsMath | Module: Methods / Mathematics | | m | 7,5 |
| CH09-320103 | General Intelligent Mobile Systems I | Lecture | m | 1 | 5 | JT-ME-120103 | Calculus I | Lecture | m | 1 | 2,5 |
| CH09-320113 | Introduction to Intelligent Mobile Systems Lab I | Lab | m | 1 | 2,5 | JT-ME-120104 | Calculus II | Lecture | m | 1 | 2,5 |
| CH09-320104 | General Intelligent Mobile Systems II | Lecture | m | 2 | 5 | JT-ME-120122 | Foundations of Linear Algebra I | Lecture | m | 2 | 2,5 |
| CH09-320114 | Introduction to Intelligent Mobile Systems Lab II | Lab | m | 2 | 2,5 | JT-SK-Skills | Module: Skills | | m | 5 | |
| Module: CHOICE (own selection) | | | e | 1/2 | 30 | JT-SK-320111 | Programming in C I | Lecture | m | 1 | 2,5 |
| <i>Students take two further CHOICE modules from those offered for all other study programs. ²</i> | | | | | | | | | | | |
| | | | | | | JT-SK-320112 | Programming in C II | Lecture | m | 2 | 2,5 |
| | | | | | | JT-TA-TriArea | Module: Triangle Area | | m | 2,5 | |
| | | | | | | Take one course from the triangle (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT) area. Each counts 2,5 ECTS ³ | | me | 1/2 | 2,5 | |
| | | | | | | JT-LA-Language | Module: Language | | m | 5 | |
| | | | | | | Take two German courses (2,5 ECTS each). Native German speakers take courses in another offered language | | Seminar | me | 1/2 | 5 |
| | | | | | | CA01-CarAdv | Career Advising⁴ | | m | | |
| Year 2 - CORE | | | | | Year 2 - CORE | | | | | | |
| 45 | | | | | 20 | | | | | | |
| <i>Take all three modules <u>or</u> replace one with a CORE module from a different study program. ²</i> | | | | | | | | | | | |
| CO22-IntelSys | Module: Intelligent Systems | | | me | 15 | JT-ME-MethodsMath | Module: Methods / Mathematics | | m | 7,5 | |
| CO22-320671 | Computer Vision | Lecture | m | 3 | 5 | JT-ME-120201 | Elements of Probability | Lecture | m | 3 | 2,5 |
| CO22-320311 | Robotics | Lecture | m | 4 | 5 | JT-ME-120113 | Foundations of Linear Algebra II | Lecture | m | 3 | 2,5 |
| CO22-320372 | Machine Learning | Lecture | m | 4 | 5 | JT-ME-120202 | Numerical Methods I | Lecture | m | 4 | 2,5 |
| CO23-AutoControl | Module: Automation and Control | | | me | 15 | JT-TA-TriArea | Module: Triangle Area | | m | 7,5 | |
| CO23-320301 | Control Systems | Lecture | m | 3 | 5 | Take three courses from the triangle (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT) area. Each counts 2,5 ECTS ³ | | me | 3/4 | 7,5 | |
| CO26-300312 | Embedded Systems Lab | Lab | m | 3 | 5 | JT-LA-Language | Module: Language | | m | 5 | |
| CO23-320203 | Automation | Lecture | m | 4 | 5 | Take two German courses (2,5 ECTS each). Native German speakers take courses in another offered language | | Seminar | me | 3/4 | 5 |
| CO24-PlanOpt | Module: Planning and Optimization | | | me | 15 | CA01-CarAdv | Career Advising⁴ | | m | | |
| CO29-080202 | Operations Research | Lecture | m | 3 | 5 | | | | | | |
| CO24-300491 | Optimization | Lecture | m | 4 | 5 | | | | | | |
| CO24-320521 | Artificial Intelligence | Lecture | m | 3 | 5 | | | | | | |
| Year 3 - CAREER | | | | | Year 3 - CAREER | | | | | | |
| 45 | | | | | 5 | | | | | | |
| COXX | Module: Additional (4th) CORE module | | | m | 5/6 | 15 | JT-TA-TriArea | Module: Triangle Area | | m | 5 |
| | | | | | | Take two courses from the triangle (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT) area. Each counts 2,5 ECTS ³ | | me | 5 | 5 | |
| CA09-IMS | Module: Project/Thesis IMS | | | m | 15 | CA01-CarAdv | Career Advising⁴ | | m | | |
| CA09-320303 | Project IMS | | m | 5 | 5 | | | | | | |
| CA09-320304 | Thesis IMS | | m | 6 | 10 | | | | | | |
| CA-S-IMS | Module: Specialization Area IMS | | | m | 15 | | | | | | |
| Take 15 ECTS of specialization courses ² | | | | me | 5/6 | 15 | | | | | |
| Total ECTS | | | | | | | | | | 180 | |

¹ Status (m = mandatory, e = elective, 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 module handbook (on our website).

³ You are required to take six Triangle Area courses in total. Select two from each of the three triangle areas (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT).

⁴ Mandatory component of the Jacobs University's Counseling and Advising Scheme.