

**Personal Study Plan in the Master Study Program  
Applied Computer Science at Georg-August-University Goettingen  
Field of Specialization: Applied System Engineering with Minor Subject**

Information:

Following § 15 (3) of the examination and study regulations in its version AM I 31/07.10.2025, every student should seek counselling before choosing a professionalization. It is also recommended to draft a study plan in order to ensure successful completion of the study program within the regular study duration.

Following ModulVZ in its version AM II 14/08.10.2025, I. 2. a. XI. 1. e. aa., a confirmed prerequisite fund of knowledge in medical informatics and the health care system is mandatory in order to be admissible in the study field of medical informatics.

The numeration of the different module groups in this template follows the numeration ModulVZ in its version AM II 14/08.10.2025.

**Personal Study Plan of**

Enrolment No.:

Prerequisite Knowledge:

First Term of Master Studies:

Intended Term of Graduation:

Intended Term for Master Thesis:

**Overview Master Studies**

| Area                    | Minimum of credits | Actual Credits obtained |
|-------------------------|--------------------|-------------------------|
| General Studies         | 24                 |                         |
| Field of Specialization | 48                 |                         |
| Key Competencies        | 12                 |                         |
| Electives               | 6                  |                         |
| Master Thesis           | 30                 |                         |
| <b>Total ECTS</b>       | <b>min. 120</b>    |                         |

(Courses that must be passed in order to fulfill the mandatory level of prerequisite knowledge will be determined individually in student counselling with regard to the transcript of records of the candidate's bachelor examination.)

### Mandatory Prerequisite Courses from the Bachelor Curriculum in Medical Informatics

| Module No.        | Module Title                           | Passed in | ECTS      | Topics   |
|-------------------|--|-----------|-----------|--|
| B.Inf.1301        | Fundamentals of Medical Informatics    |           | 9         | Introduction to Medical Informatics / Clinical Documentation / Data Privacy and Information Security |
| B.Inf.1351        | Fundamentals of Biomedicine            |           | 8         | Fundamentals of Bio-Medicine I to III  |
| B.Inf.1352        | Organization of the Health Care System |           | 6         | Organization in Health Care / Quality Management and Risk Assessment in Health Care                  |
| B.Inf.1302        | Biosignal Processing                   |           | 5         | Biosignal Processing (Lecture and Exercise)  |
| <b>Total ECTS</b> |  |           | <b>28</b> |  |

### Elective Prerequisite Courses from the Bachelor Curriculum in Medical Informatics

| Module No.        | Module Title   | Passed in | ECTS      | Topics  |
|-------------------|--|-----------|-----------|---|
| B.Inf.1354        | Application Systems in Health Care                       |           | 5         | Application Systems in Health Care (Lecture and Practical Exercise) |
| B.Inf.1306        | Data Management and Data Analysis in Biomedical Research |           | 7         | Data Management and Data Analysis in Biomedical Research            |
| B.Inf.1304        | IT-Projects  |           | 3         | Fundamentals of Project Management                                  |
| <b>Total ECTS</b> |  |           | <b>15</b> |   |

(I. 1.) General Studies (min. total of 24 C)

**(I. 1. a.) Mandatory Electives Modules (min. of 3 modules and min. total of 15 C)**

| Module No. | Module Title | Passed in | ECTS |
|------------|--------------|-----------|------|
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
|            | Total ECTS   |           |      |

### **(I. 1. b.) Elective Modules**

| Module No. | Module Title | Passed in | ECTS |
|------------|--------------|-----------|------|
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
|            | Total ECTS   |           |      |

(I. 2. a. XI.) Field of Specialization (min. total of 48 C)

(I. 2. a. XI. 1. e.) Minor Subject Medical Informatics (min. total of 30 C)

(I. 2. a. XI. 1. e. bb. i.) Area “Medical Informatics” (min. of 3 modules and min. total of 18 C)

| Module No.              | Module Title                              | Passed in | ECTS | Lecture Title  |
|-------------------------|---|-----------|------|--|
| <b>Elective Modules</b> |   |           |      |  |
| M.Inf.1306              | Market Analysis                           |           | 9    | Market Analysis<br>(Lecture and Seminar Project,<br>2 Terms) |
| M.Inf.1307              | Current Topics in<br>Medical Informatics  |           | 6    | Clinical Decision Support Systems                            |
| M.Inf.1308              | Journal Club                              |           | 3    | Journal Club   |
| M.Inf.1309              | Biomedical Signal and Image<br>Processing |           | 6    | Biomedical Signal and Image Pro-<br>cessing                  |
| M.Inf.1304              | E-Health                                  |           | 6    | E-Health   |
| <b>Total ECTS</b>       |   |           |      |  |

(I. 2. a. XI. e. bb. ii.) Area Health Care System (min. of 1 module and min. total of 9 C)

| (11.2) of All Elective Area Health Care System (mini or 1 module and mini total of 6 E) |   |           |      |  |
|---|---|-----------|------|--|
| Module No.  | Module Title                            | Passed in | ECTS | Lecture Title  |
| Elective Modules  |   |           |      |  |
| M.Inf.1351  | Work Methods in Health Care Research    |           | 5    | Collaborative Methods in Research                    |
| M.Inf.1355  | IT Management Techniques in Health Care |           | 10   | Economic Aspects of IT Investments in Health Care    |
|   |   |           |      | Special Aspects of Project Management in Health Care |
|   |   |           |      | Knowledge Management                                 |
| M.Inf.1356  | Infrastructures for Clinical Research   |           | 9    | Personalized Medicine                                |
|   |   |           |      | Clinical Trials                                      |
|   |   |           |      |  |

(I. 2. a. XI. 2.) System-Oriented Informatics (min. of 2 modules and min. total of 15 C)

| Module No.        | Module Title | Passed in | ECTS |
|-------------------|--------------|-----------|------|
|                   |              |           |      |
|                   |              |           |      |
|                   |              |           |      |
|                   |              |           |      |
| <b>Total ECTS</b> |              |           |      |

*(I. 2. b.) Key Competencies (min. total of 12 C)*

**(I. 2. b. aa.) Job-related Key Competencies (min. of 1 module and min. total of 6 C)**

| Module No. | Module Title | Passed in | ECTS |
|------------|--------------|-----------|------|
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
| Total ECTS |              |           |      |

**(I. 2. b. bb.) Cross-subject Key Competencies (Electives)**

| Module No. | Module Title | Passed in | ECTS |
|------------|--------------|-----------|------|
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
| Total ECTS |              |           |      |

*(I. 2. c.) Electives (min. of 66 C minus the sum of C gained in I. 2. a. + I. 2. b.)*  
(further modules from the modules in general studies (I. 1. a. or b.)  
or the modules in the fields of specialization and key competencies (I. 2. a. or b.)

| Module No. | Module Title | Passed in | ECTS |
|------------|--------------|-----------|------|
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
|            |              |           |      |
| Total ECTS |              |           |      |

***I. 3. Master's Thesis (30 C)***

Students who wish to write their thesis at the Department of Medical Informatics should carefully read the information provided on the department's website and contact supervisor in a timely fashion (as suggested in § 4 PStO; version AM I 31/07.10.2025.

<https://medizininformatik.umg.eu/studium-lehre/praktika-und-abschlussarbeiten/>