MODUL UNIVERSITY
PRIVATE UNIVERSITY VIENNA

Study Regulations
Bachelor of Science in Applied Data Science

Decided on **15 October 2026** by the University Senate

Due to the accreditation as a private university (decision of the Austrian Accreditation Council on 12 July 2007 according to the university accreditation law, BGBl. I No. 168/1999 as amended), the University Senate of Modul University Vienna decreed the following study regulations, according to Art. III §12 (12) of the University Constitution.

Preamble

These Study Regulations apply to all versions of curricula in place for the Bachelor of Science in Applied Data Science study program. The current curriculum of this program is referred to with the abbreviation 140 BSc ADS.

§ 1 Ambit

These study regulations define the admission criteria, the structure of the study program and the examination requirements.

§ 2 Goal of the Degree

The Bachelor of Science degree is awarded at the completion of the applied data sciences curriculum and signifies career qualifications. Examinations taken throughout the program, practical trainings, a capstone project, and the evaluation of a bachelor thesis determine whether the student has acquired the knowledge necessary for a transition to professional practice, a coherent overview of the subject matter, the ability to independently apply scientific knowledge and methods, and the theoretical foundation for a continuation of the studies in a graduate-level program.

§ 3 Degree of Completion

After the successful completion of the study program, the following academic degree will be conferred:

Bachelor of Science in Applied Data Science

The short form of this degree is:

BSc in Applied Data Science

§ 4 Admission to the Study Program

The following requirements qualify candidates for admission to this study program:

(1) Proof of a secondary school leaving certificate equivalent to a general university entrance qualification. In case the applicant is attending the final year of secondary school at the time of submitting their application, the applicant needs to submit a mid-semester transcript or equivalent documents to show credibly that the general university entrance certificate will be received before the intended study start. Applicants need to present relevant certificates as originals before the commencement of studies otherwise the admission is void.

(2) All applicants whose first language is not English must provide a proof of their English proficiency level B2 according to the Common European Framework of Reference for Languages through one of the following tests taken within the last two years.

a) TOEFL Internet-Based Test (iBT): 4.5 (no sub-score below 4.0);
b) IELTS: overall band 6.5 (no sub-score below 6.0);
c) Cambridge B2 First: Grade B (minimum of 173); or
d) Duolingo English Test: 125 (no sub-scores below 110); or
e) Pearson Academic (PTE): 55

The Admissions Committee may grant exceptions if an applicant proves that they have completed at least two consecutive years of secondary or higher education in the English language at a recognized institution (e.g., International Schools with American, British, or IB curricula). The admissions committee reserves the right to request and consider any additional evidence of English proficiency, including from those claiming exemptions.

(3) The application must include the following documents:

- Curriculum vitae (personal data sheet)
- Letter of motivation
- Copy of passport
- Passport-size photograph

(4) Applicants may optionally submit a letter of recommendation.

(5) A certified translation needs to accompany all documents, which are not in the German or English language.

(6) The Admissions Committee may conduct an interview with the applicant. The interview may take place either in person, via video conference or telephone. The interview serves to clarify unanswered questions raised during the application process and to check if the applicant's expectations, personality profile, and their knowledge of English are in line with what the program offers.

(7) The Admissions Committee decides on the final admission to the study program and possible conditions once the candidate has submitted a complete application.

(8) The Study Contract of a minor accepted into this program requires the co-signature of a legal guardian.

(9) Conditional Admittance: Applicants who do not fulfill the admissions criteria for direct entry into this program may be conditionally admitted upon discretion of the Admissions Committee if they fulfill the criteria for attending the Modul University Vienna Foundation Program according to the Foundation Program Study Regulations. The Admissions Committee may also require the completion of the Foundation Program course 'Mathematics' as a condition of admittance. In this case, a positive assessment of the course 'Mathematics' is required before students can enroll into the courses of Module I – Fundamentals of Statistics and Calculus, Module II – Fundamentals of Data Science and Engineering, and Module IV – Data Science for Business Applications. Progression to this program is governed by the Foundation Program Study Regulations.

§ 5 Structure and Duration of the Study Program

(1) The regular duration of the study program is six semesters.

(2) All lectures, course work, and examinations are held in the English language.

(3) The study program requires the student to complete a professional capstone project containing a minimum of 650 hours.

(4) This program requires the student to complete 180 ECTS (including coursework, a capstone project, and a thesis), as outlined in § 6 Curriculum Overview.

(5) Upon application and approval by the Dean, a study semester may be completed abroad at an accredited partner university or an international branch campus of Modul University Vienna.

(6) Upon application of the student, the Dean may grant a leave of absence. During this period, the student's tuition fees will be suspended, and they will be unable to attend courses, submit a thesis supervision request, receive ongoing supervision, or submit a final thesis. All other effects of the leave of absence are the responsibility of the student. The application for a leave of absence must include the planned duration of the leave and should be submitted at least one month prior to the start of the semester in which the leave of absence will take place. Multiple leaves of absence are permitted; however, the total maximum duration of leave allowed is 4 semesters.

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§6 Curriculum Overview

#	CI	Subject	Type	Format	FT	ST	Both	h/w	ECTS
Module I: Fundamentals of Statistics and Calculus									**22**
1	APLA 1361	Applied Linear Algebra	CC	SE	2	1		3	6
2	MTH1 1363	Mathematics and Statistics I	CC	LX21	1	1	Yes	3	6
3	MTH2 2363	Mathematics and Statistics II	CC	LX21	2	2	Yes	3	6
4	TSAF 3441	Time Series Analysis and Forecasting	CC	SE	3	4		2	4
Sum Module I								11	22
Module II: Fundamentals of Data Science and Engineering									**50**
5	ADTS 9361	Algorithms and Data Structures	CC	SE	2	3	Yes	3	6
6	DMGD 2363	Database Management and Design	CC	LX12	2	3		3	6
7	FDAI 1364	Foundations of Artificial Intelligence	CC	IL	1	2		3	6
8	FCSP 1382	Fundamentals of Computer Science and Programming	CC	LS12	1	1	Yes	3	8
9	FWPA 3481	Fundamentals of Web Programming and Application Development	CC	SE	1	4		4	8
10	KEMV 3363	Knowledge Extraction, Modelling and Visualization	CC	LX12	4	3		3	6
11	LADS 1244	Legal Aspects of Data Science	CC	IL	2	1		2	4
12	SEID 2364	Societal and Ethical Aspects of Data Science	CC	IL	4	3		3	6
Sum Module II								24	50
Module III: Fundamentals of Management									**20**
13	CTPS 1241	Critical Thinking and Problem Solving	CC	SE	5	6		2	4
14	EIBP 4362	Entrepreneurship, Innovation and Business Planning	CC	LS12	4	4	Yes	3	6
15	ORGB 2244	Organizational Behavior and Corporate Social Responsibility	CC	IL	2	1		2	4
16	PMCM 3241	Project and Change Management	CC	SE	3	2		3	6
Sum Module III								10	20
Module IV: Data Science for Business Applications									**24**
17	BAPP 2361	Blockchain Applications	CC	SE	3	2		3	6
18	LTDS 4241	Latest Trends in Data Science	CC	SE	5	6		2	4
19	SMSE 3481	Smart Information Systems Engineering	CC	SE	3	4		4	8
20	TMMA 3364	Text Mining and Media Analysis	CC	IL	3	4		3	6
Sum Module IV								12	24
Module V: Enrichment Courses*									**8**

21	QCDA 4241	Quantum Computing for Data Science	ER	SE	4	3		2	4
22	DSBS 4241	Data Science for Businesses	ER	SE	5	6		2	4
Sum Module V								6	8
Module VI: Applied Data Science Capstone Project									**28**
24	CP26 3008	Capstone Project (650h)	CC	CAP	6	5			26
25	CPRP 4019	Capstone Project Report	CC	EX	6	5			1
26	INTP 3118	Professional Development	CC	PT	5	6	Yes	1	1
Sum Module VI								1	28
Module VII: Bachelor Thesis									**28**
27	ACWR 2241	Academic Writing	CC	SE	3	1	Yes	2	4
28	TH18 4009	Bachelor Thesis	CC	TH	5	6			18
29	BTTU 4121	Bachelor Thesis Tutorial	CC	SE	4	3	Yes	1	2
30	REDE 3241	Research Design	CC	SE	1	2		2	4
Sum Module VII								5	28
Total sum								**69**	**180**

Notes: IL = Interactive Lecture; LX = Lecture and Exercise; LS = Lecture and Seminar; SE = Seminar; PT = Practical Training; ES= Examination; TH = Thesis; CC = Core Course; ER = Enrichment Course.

§ 7 Types of Courses

(1) Core Courses are mandatory for all students and must be completed with a positive assessment.

(2) Enrichment Courses are non-core courses and may vary from semester to semester. In this program, students are required to earn at least 8 ECTS in Enrichment Courses for Module V. Students may enroll in any non-core undergraduate courses taught at Modul University Vienna as long as they meet all of the course pre-requisites as per the relevant degree study regulations.

(3) If students register for more than the required enrichment courses, including enrichment courses from another study program, the student will be responsible for any additional costs in accordance with MU's Rules on Additional Fees.

(4) Non-curricular courses (i.e., language courses, Foundation Program courses) are not mandatory and will not be counted towards the total number of ECTS nor weighted average grade percentage, however, they will appear on the Transcript of Records as non-curricular ECTS.

(5) The Dean has the discretion to determine the minimum number of participants for all courses.

(6) Courses are taught on campus. In exceptional circumstances, the Dean may decide that a course can be taught online or hybrid.

§ 8 Course Prerequisites

Registration in courses will only be permitted following positive assessment in the corresponding prerequisite course(s) or completion of prerequisite requirements.

(1) Mathematics and Statistics I is a prerequisite for Mathematics and Statistics II.

(2) Foundations of Artificial Intelligence is a prerequisite for Knowledge Extraction, Modelling and Visualization and Smart Information Systems Engineering.

(3) Fundamentals of Computer Science and Programming is a prerequisite for Database Management and Design and Algorithms and Data Structures.

(4) Organizational Behavior and Corporate Social Responsibility is a prerequisite for Entrepreneurship, Innovation and Business Planning.

(5) Mathematics and Statistics II is a prerequisite for Times Series Analysis and Forecasting.

(6) Professional Development Course is a prerequisite for the Professional Data Science Capstone Project and the Capstone Project Report.

(7) Research Design and Academic Writing are prerequisites for Bachelor Thesis Tutorial.

(8) Bachelor Thesis Tutorial is a prerequisite for the Bachelor Thesis.

(9) Fundamentals of Computer Science and Programming, Applied Linear Algebra, and Legal Aspects of Data Science are prerequisites for Blockchain Applications.

(10) Foundations of Artificial Intelligence, Fundamentals of Computer Science and Programming, Legal Aspects of Data Science are prerequisites for Text Mining and Media Analysis.

(11) Fundamentals of Computer Science and Programming and Applied Linear Algebra are prerequisites for Quantum Computing for Data Science.

§ 9 Professional Data Science Capstone Project

(1) The study program requires the student to complete a Professional Data Science Capstone Project containing a minimum of 650 hours (28 ECTS, including the accompanying Professional Development Course and the Capstone Project Report) in a

field relevant to the study program. This Professional Data Science Capstone Project is designed to provide students with the opportunity to apply their acquired theoretical knowledge and gain practical experience.

(2) The selection of the Professional Data Science Capstone Project requires the written approval of the Dean.

(3) Modul University Vienna reserves the right to supervise the Professional Data Science Capstone Project.

(4) The Professional Data Science Capstone Project may be completed in two parts of equal length.

(5) The completion of the Professional Data Science Capstone Project must be proven through a confirmation letter, reference letter, and/or appraisal on behalf of the Project beneficiary.

(6) Upon successful completion of the Professional Data Science Capstone Project, the student will receive the grade "completed" from the Program Area Director.

(7) After completion of the Professional Data Science Capstone Project, the student must submit a final report of the project which follows the relevant guidelines of the Professional Data Science Capstone Project Manual. The Capstone Project Report will be graded by the Program Area Director.

(8) The Dean can confer the task in (2) to the Capstone Project Coordinator or the Program Area Director.

§ 10 ECTS Points

(1) ECTS credits (European Credit Transfer and Accumulation System – ECTS are allocated to each course to indicate the workload required of students to achieve the defined learning outcomes.

(2) Each ECTS credit corresponds to 25 working hours for the student.

§ 11 Bachelor Thesis

(1) The thesis must be written according to the principles of academic work. The thesis should address a research question linked to a relevant topic identified in a course of the program or through literature review. The thesis must either contain an empirical component or a practical data science project.

(2) The student must submit an application for supervision to the prospective supervisor, including the topic and a brief outline for the thesis. The prospective supervisor and the Dean must approve the supervision of the thesis and inform the student in writing within one week.

(3) After the approval of the topic, the student has up to 4 weeks to submit the research proposal to the supervisor. If this proposal is not handed in by the set deadline, the supervisor has the right to refuse supervision of a student's thesis.

(4) The bachelor thesis must be an individual piece of work. Co-authorship of a bachelor thesis is not permitted. The bachelor thesis shall be written in the English language.

(5) Eligible supervisors are faculty members or external lecturers who hold a doctoral degree. The supervision of a thesis by external lecturers or by academic staff without a doctoral degree requires approval and assessment by the Dean.

(6) The topic of the bachelor thesis can only be changed once and must be made within the first two months after the approval of the supervision by the Dean of the program.

(7) The deadline for submission of the thesis is to be agreed upon by the supervisor and the student.

(8) If the student misses deadlines and no substantial progress on the thesis has been made, the supervisor may withdraw from the supervision of a thesis.

(9) Bachelor theses are electronically archived in the library and may be published on the Modul University Vienna website. Withholding a thesis can be applied for in written form by the supervisor or thesis author if information worthy of protecting is published in the thesis. The publication will be withheld for a maximum of 5 years and is subject to approval by the University Board.

§ 12 Overall Result of the Study Program

(1) The overall assessment of the bachelor's degree is given by the weighted average grade percentage of all final grades (core courses, enrichment courses and thesis) completed at Modul University Vienna, or any international branch campus of Modul University Vienna. Each course is weighted corresponding to the allocated ECTS credits.

Assessment Scheme

- "With distinction" is awarded for an overall grade percentage average of

90% or higher.

- "With merit" is awarded for an overall grade percentage average between 80% and 89%.
- "Passed" is given for an overall grade percentage average between 60% and 79%.

§ 13 Conferment of Degree

(1) The academic degree of BSc in Applied Data Science is conferred after completion of all components of the curriculum (core courses, enrichment courses and the thesis).

(2) Graduates must complete a total of 180 ECTS as stated in the curriculum overview (§ 6 Curriculum Overview (1) or (2)) in order to obtain the degree BSc in Applied Data Science. Students may transfer course credits from their professional experience or previous educational institution; however, a minimum of 120 ECTS must be completed at Modul University Vienna. Exceptions can be made for credit transfers from recognized post-secondary educational institutions or partner universities. Credits completed in the foundation program will appear on the transcript as non-curricular ECTS and will not be counted towards the total number of ECTS nor weighted average grade.

(3) Graduates will receive the following documents in the English language stating the date on which the degree was awarded.

a) Bachelor Diploma: The bachelor diploma is signed by the President and the Dean and is certified by the Modul University Vienna seal.
b) Diploma Supplement: A supplement, which is signed by the Dean, will be provided in addition to the diploma to explain the international allocation of the completed program.
c) Transcript of Records: The Transcript of Records reflects all courses that have been passed, the respective ECTS credits, and the final course grades as well as the student's weighted average grade.

(4) Where a student does not complete the study program, the student shall receive a Transcript of Records for all course work which has been successfully completed thus far.

§ 14 Semester Conference

(1) In this program, the tasks outlined in § 10 of the MU Examination Regulations and Student Code of Conduct are carried out by a Semester Conference, as specified by the University Constitution (Article XIII. §1-2).

The University Board of Modul University Vienna publicly announces these Study Regulations, which take effect on 15 February 2027