**Form number** 1 V03/11/2023 **Form name** DSAI Program of Examinations Enrollment year 2022/2023

Fill in moment At the end of the 3rd quarter of your studies

Name:

Intended graduation cluster\*:

ID-Number:

Month and year of enrollment:

Name representative research cluster\*:

\*This form is signed by the representative of the research cluster where you intend to graduate. If this is yet unknown the form may be signed by your teacher coach instead.

## Instructions

Please try to fill in the form digitally. In the case you want to change your program and you require permission from the examination committee in advance (e.g. when following courses at another university), note the changes on page three. When you want to change the program for other reasons, please do this at the start of your preparation phase together with form 2. For more information on the DSAI program check the online education guide.

- 1. In the green column the mandatory study components (core) are already selected. Additionally, you need to select <u>one</u> of the three core electives in this column (2AMM20, 2AMI10 or 2AMV10).
- 2. In the white columns, you need to select two major trajectories (two courses/10 ects per major trajectory) and one or two minor trajectories (two courses/10 ects in total from trajectories that are not your major trajectories). Please indicate which trajectory is a major and which one is a minor.
- 3. On the second and third and page you need to fill in the seminar you chose to follow and your free electives (15 ects). Also, you can fill in your homologation courses and internship, if applicable. Are you following courses at another university? Please provide links to the course descriptions of these courses (e.g. a link to a course catalogue) on page four.
- 4. The representative of the research cluster you intend to graduate in or your Teacher Coach and you have to sign the form on page four.
- 5. If you need to make changes to a previously approved program please use textbox one page four as well.

Code	Course title	Core and core electives (30)	Specialization electives major/minor (30)	
Mandatory study components				
0LM190	Ethics in Data Science & Al	X		
2AMC15	Data Intelligence Challenge	X		
Program Trajectories 2 x 10 ects major + 2 x 5ect			najor + 2 x 5ects minor	
DS&AI in Cor	O major O m			O major O minor
2IMP40	Empirical Methods in Software Engineering			
Statistics				O major O minor
2AMS10	Longitudinal Data Analysis	×		
2DI70	Statistical Learning Theory			
2AMS20	Statistics for Big Data			
2DD23	Time-Series & Forecasting			
Data Engineering and Management O major O minor				O major O minor
2AMD15	Big Data Management	×		
2IMD10	Engineering Data Systems			
2IMS25	Principles of Data Protection			
2AMD20	Knowledge Engineering			

Artificial Intelligence and Machine Learning				O major O minor
2AMU10	Foundations of AI	X		
2AMU20	Generative AI Models			
2AMU30	Uncertainty representation and reasoning			
2AMM40	2AMM40 Advanced Topics in Al			
Data Mining & Machine Learning		-	-	O major O minor
2AMM20	Research Topics in Data Mining			
2AMS40	Learning Optimal Decision Strategies			
2AMM15	Machine Learning Engineering			
2AMM10	Deep Learning			
2AMM30	Text Mining			
Explainable Dat	aAnalytics			O major O minor
2AMI10	Foundations of Process Mining			
2AMI20	Advanced Process Mining			
2AMV10	Visual Analytics			
Algorithmic Dat	a Analysis	-	-	O major O minor
2AMS50	Optimization for Data Science			
2IMA20	Algorithms for Geographic Data			
2IMA30	Topological Data Analysis			
	Subtotal ects/ no. of courses completed	30	20	10
Seminar (selec	t one)			
Course code	Course title			ects
2IMA00	Seminar Algorithms		5	
2IMD00	Seminar Datamanagement		5	
21MI00	Seminar Process Analytics		5	
2IMM00	Seminar Data Mining		5	
21MS00	Seminar IST		5	
2IMU00	Seminar Uncertainty in Al		5	
2IMV00	Seminar Visualization		5	
2AMS00	Seminar SPOR		5	
21MN00	Seminar IRIS		5	

Subtotal ects

5

5

Department of Mathematics and Computer Science

Seminar SET

Seminar FSA

2IMP00

2IMF00

#### Free elective courses

Course code	Course title	ects
	Subtotal ects	

### Homologation courses\*

Course code	Course title	ects
	Subtotal ects	

\*Homologation courses are bachelor courses assigned during the admission process to make up deficiencies in previous knowledge. Please check your admission letter to see if you have homologation courses. It is also possible to pick a maximum of three bachelor courses yourself to compensate deficiencies, if you think it is necessary. If you do that, a motivation for including the self-chosen homologation courses must be attached to this form.

# Internship\*\*

Course code	Course title	ects
2IMC10	Internship	15
	Subtotal ects	

\*\*An internship is optional. Keep in mind, when you do an external internship (e.g. at a company), your graduation project needs to be executed internally (within TU/e), when you do an internal internship you cannot graduate with the same supervisor. Internship supervisor (if known):

### **Graduation Project**

Course code	Course title	ects
2AMC05	Graduation Preparation	10
2AMC00	Master Project	30
	Subtotal ects	40

Total number of credits (at least 120 credits)

### Agreement

Signature Student: Date:

Signature representative research cluster or Teacher Coach:

Date:

Changes to the previously approved program, links to course descriptions of courses followed at another university and/or motivation for selfchosen homologation courses (if applicable):

This form must send to the Student Administration mcs.csa@tue.nl.

If you do not agree with the decision of the Examination Committee, you may submit an appeal via this webpage within a period of six weeks after the date of this decision.

This section to be filled in by the Examination Committee

Approval Examinations Committee:

Date: