

**Annex 1 to the academic study and examination regulations for the continuing education master programme M.Eng.
Simulation Based Engineering at the Technische Hochschule Ingolstadt in the version dated
04/04/2022**

1	2	3	4	5	6	7	8	9	10
No.	Modules	WEEKLY SEMESTER HOURS	Type of course	Examinations		Scope		Weighting for the overall examination grade (in %)	ECTS-Credit points (ECTS)
				Kind	Duration in minutes	written elaboration	Presentation		
1	Applied Methods in Simulation Based Engineering	4		mdlP	15-20			4	5
2	Specific Methodological Competencies	4	SU	StA		8-15 pages		4	5
3	Self-Competence and Social Competence at the Workplace	4	SU	StA		8-15 pages		4	5
4	Mathematics and Computational Methods	4	SU	schrP	90-120			7	5
5	Solid Mechanics	4	SU	schrP	90-120			7	5
6	Finite Element Method	4	SU	StA		8-15 pages		7	5
7	Materials and Material Models	4	SU	schrP	90-120			7	5
8	Computational Dynamics	4	SU	schrP	90-120			7	5
9	Project	4	SU	Proj	15	10-20 pages		7	5
10	Elective module 1 ¹⁾	4	SU	LN				7	5
11	Elective module 2 ¹⁾	4	SU	LN				7	5

12	Geometrically Nonlinear and Contact Analysis	4	SU	schrP	90-120			7	5
13	Master's Thesis ²⁾							25	30
13.1.	Master's Thesis			MA		60 - 80 pages			
13.2.	Colloquium			Coll	45				
	Total							100	90

Footnotes

for elective modules ¹⁾

The elective modules are defined by the Faculty Council in the module handbook.

to the Master's Thesis ²⁾

A colloquium is held for the Master's Thesis. The grades for the Master's Thesis and the colloquium are weighted at a ratio of 4:1.

Type of lectures

S	Seminar
SU	Lectures
Ü	Exercise

Type of examination

schrP	written examination	The written examination is a written exam lasting 90 - 120 minutes.
mdIP	Oral examination	The oral examination is an interview lasting 15 - 20 minutes per student. The oral examination can be conducted as an individual or group examination.
prP	Practical examination	Based on "real actions" of the student, it should be demonstrated that the student has mastered the practical application of the competences taught. The practical examination lasts 15 minutes per student and can be carried out as an individual or group examination.
StA	Student research project	The student research project is a term paper without an oral presentation. A term paper can be written using a word processing programme or as a presentation. Word processing programme: approx. 8 to 15 pages (minimum 3,000 to maximum 6,000 words) Presentation: approx. 15 to 20 slides.

SA

Seminar paper

The seminar paper is a term paper with an oral presentation. The oral presentation lasts a total of 15 minutes per student and can also take place during the semester. A term paper can be written using a word processing programme or as a presentation. Word processing programme: approx. 8 to 15 pages (at least 3,000 to maximum 6,000 words)

Proj	Project work	The project work is a group project in which several students work on a joint task as a team and present the results orally and in writing. Each student must contribute individually to the joint task and deliver an oral presentation lasting 15 minutes. The written part is approx. 10 to 20 pages long.
	evidence of academic achievement	The evidence of academic achievement can alternatively be a written examination (90 minutes - 120 minutes), an oral examination (15-20 minutes), a practical examination (15 minutes), a term paper (8-15 pages or 15-20 slides), a seminar paper (8-15 pages or 15-20 slides), or a project paper (15 minutes). The details are specified by the Faculty Council IAW in the module handbook. Each individual piece of evidence of academic achievement must be passed with at least a sufficient grade.
MA	Master's Thesis	Written thesis in the Master's Thesis programme: Maximum processing time (= period between registration of the Master's Thesis and submission) of 9 months/scope 60 to 80 pages
Coll	Colloquium	The colloquium is an oral examination lasting 45 minutes in which the student defends the results of their Master's Thesis.