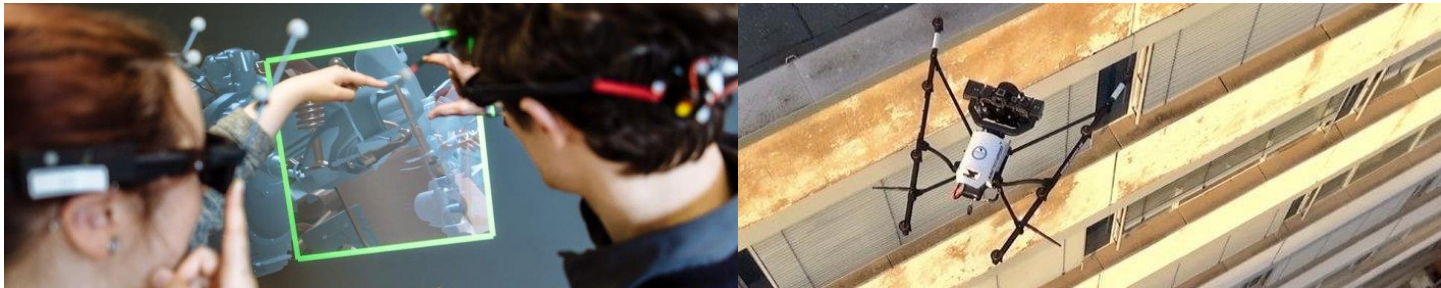


# Master Digital Engineering

- Key idea:
  - Interdisciplinary course: Engineering and Computer Science
  - 2 years, entirely in English
  - Essential skills for Industry 4.0 (the German initiative to digitalize and automate the industry)
  - Focus on civil engineering



# Fields of Applications After Study

- Industry 4.0
- Interdisciplinary projects between computer science and engineering
- Model manager in industry
- Analyst and scientist in engineering
- System integrator
- Technical manager
- Consultant for digitalization concepts
- Software developer
- Engineer in production
- Research positions

# Study Plan

Name	ECTS
Fundamentals	18
Modelling	18
Simulation and Validation	18
Visualization and Data Science	18
Electives	12
Research Project	12
Master Module	24
<i>Sum</i>	120

Fundamentals + Specialization 1. year

Project + Specialization + Master thesis 2. year

Review study and exam regulations!

<https://www.uni-weimar.de/en/civil-engineering/studies/master-degree-programmes/digital-engineering/curriculum/>

Some important facts:

- Master thesis requirements: **English C1 and German A1**
- Language courses for C1 can be used as Elective modules (**register early!**)
- Expected are **30 ECTS per semester** (~ 5 successful courses)
- Fundamentals must be completed before a project can be started
- **Preparatory research** must be started in the semester before the master thesis
- **Research project** must be completed **before the master** module can be started
- Preparatory research module must be completed before the thesis can be started

Time	Monday	Tuesday	Wednesday	Thursday	Friday						
07:30 - 09:00	Time frame for German language courses Language center, Coudraystr. 13a	Tutorium Structural Dynamics Group A 205,M7B	Tutorium Structural Dynamics Group B 102,M7B	Tutorium FEM Group C Luna-blue,M7b	Tutorium FEM Group D Luna-grey,M7b	Tutorium FEM Group A Luna-blue,M7b	Tutorium FEM Group B Luna-grey,M7b	Tutorium Structural Dynamics Group C 205,M7B	Tutorium Structural Dynamics Group D 206,M7B	[F] (Applied) Structural Dynamics*** Group 1(A+B) (E) Prof. Zabel LHD, M13C	[F] (Applied) Structural Dynamics Group 2(C+D) (E) *** Prof. Zabel LHD, M13C
09:15 - 10:45	Online registration from 07.Oct. to 21.Oct. 2019 on their Homepage (Places are limited – Please register early!)	[VaDS] Real-time Rendering (E) Group 1 Prof. Carmona LiNT-Pool, B11 start:21.Oct.19	[VaDS] Real-time Rendering Group 2 (E) Prof. Rhadamés Carmona LiNT-Pool, B11 start: 22.Oct.2019	[SaV] Fundamentals of structural health monitoring (SHM) (L) Prof. Smarsly 09:15-12:30 Orion-Pool, C13D	[F] (Applied) Structural Dynamics (L)*** Dr. Zabel LH B, M13C	[VaDS] Introduction to Machine Learning (L) Prof. Stein LH C, M 13 C start: 24.Oct.2019	[SaV] (Applied) FEM (E)*** Group 1(A+B) *** Prof.Könke LH D, M13C	(F) Object-oriented Modeling and Programming in Engineering (E) Prof. Koch Luna Blue /Grey M7b start: 18 Oct. 2019	Time frame for German language courses		
11:00 - 12:30	[VaDS] Photogrammetric Computer Vision (PCV)* (L) Prof. Rodehorst SR 015, B11 start: 14.Oct.2019	[SaV] Design & Interpretation of Experiments (L) Prof. Lahmer LH 6, C 9 A	[M] Macroscopic Transport Modeling Prof. Plank-Wiedenbeck LunaGrey M7b start; 22.10.19	[SaV] Real-time Rendering (L) Prof. Rhadamés Carmona SR 015, B11 st.:16.Oct.19	[[SaV] (Applied) FEM (L)*** Prof.Könke LH B, M13 C	[VaDS] Introduction to Machine Learning (E) M. Völske LH 13 C start: 24.Oct.2019	[SaV] (Applied) Structural Dynamics (L) *** Dr. Zabel LH D, M13C				
13:30 - 15:00	[F] Applied Mathematics and Stochastics (L) Prof. Lahmer LH B, M13 C	[VaDS] PCV * (E) M. Kaisheva SR015, B11 start:21.Oct2019 fortnightly	[F] Applied Mathematics and Stochastics Prof. Gürlebeck LH D, M 13C start: 15.Oct19	[SaV] Design & Interpretation of Experiments Prof. Kraus LH 6, C 9 A	Time frame for German language courses Language center, Coudraystr. 13a	[F] Software Engineering (M.Sc.) (L/E) Prof. Echtler HS 3, C 13 start: 17. Oct 2019	[SaV] (Applied) FEM (E) Group 2(C+D) *** Prof. Könke LH D, M13C				
15:15 - 16:45	[F] Object-oriented Modeling and Programming in Engineering (L) LH 001, C11C start:14.Oct.19	[SaV] (Applied) FEM (L)*** Prof. Könke LH B, M13C			Online registration from 07.Oct. to 21.Oct. 2019 on their Homepage (Places are limited – Please register early!)		Java Tutorial: 17:00 – 18:30				
17:00 - 18:30	[F] Applied Mathematics and Stochastics (E) Group 1 /2 Dr. Legatiuk / A. Legatiuk. Group 1: LH D, M13C Group 2: LH B, M13C start: 14.Oct 2019		[SaV] Design & Interpretation of Experiments (E) Group1/2 alternating weeklg Prof. Lahmer Luna-grey,M7b	Academic English Part II** H. Atkinson SR 015, B11 start: 07.Nov 2019		Academic English Part I ** H. Atkinson SR 015, B11 start: 06. Nov 2019	← Tip ↑				

\*PCV: first lecture: Okt. 14th, 2019, 13:30 – 15:00, room 015, Bauhausstraße 11

\*\* obligatory registration for all participants: October 30th, 2019, 13:00-17:00 p.m., room 001, Bauhausstr. 11

\*\*\*FEM/Structural Dynamics" until the End of November ->, starting from December "Applied FEM"/ „Applied Structural Dynamics"

(L)=Lecture / (E) =Exercise / (S) = Seminar

List of abbreviations: M7: Marienstraße 7  
B11: Bauhausstraße 11 M13: Marienstraße 13  
C13: Coudraystraße 13 LH: lecture hall  
HK7: Haußknechtstraße 7 SR: seminar room

Requirement + Fundamental Fundamental English course for C1 Specialization

# FAQ

- Arriving in Weimar: What to do?
  - <https://www.uni-weimar.de/en/university/international/to-weimar/preparing-your-stay/>
- **Student assistants helping you arriving**
  - Jason Poh Hwa Lai [jason.poh.hwa.lai@uni-weimar.de](mailto:jason.poh.hwa.lai@uni-weimar.de)
  - Qianqi Huang <qianqi.huang@uni-weimar.de>
- For CS courses:
  - Media students receive 4.5 ECTS
  - DE students receive 6 ECTS -> more tasks and/or larger exam
- **Java introductory tutorial from Nathalie Dittrich**  
([nathalie.jolanthe.dittrich@uni-weimar.de](mailto:nathalie.jolanthe.dittrich@uni-weimar.de))
- Check your university e-Mail box **regularly!**