

Software Systems Engineering

Introductory Meeting WS 2012/2013

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RWTH Aachen University
Knowledge-Based Systems Group
(Lehr- und Forschungsgebiet Informatik 5)

October 2, 2012

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Master Programme Coordination

- Head: Prof. Gerhard Lakemeyer, Ph.D.
Office hours: Thursday, 13h – 14h
- Programme Guidance / Study Advisor:
 - Dipl.-Inform. Stefan Schiffer
 - Office hours: by appointment (!)
 - Mail: sse@kbsg.rwth-aachen.de
- Internet
 - **Website:** <http://dbis.rwth-aachen.de/SSE/>
 - **Mailinglist:** please subscribe to mailing list [sse2012](#) at
[.../mailing-lists/sse20XX](#)

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Contact

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Master Programme Software Systems Engineering

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Welcome page with recent news (if available)

Welcome to the web pages of the International Master Programme Software Systems Engineering offered by the [Department of Computer Science](#) at [RWTH Aachen University](#).

This **two year** Master programme is primarily intended for **international students** holding a Bachelor degree in Computer Science or a *closely related* field from an internationally recognized university. The programme is offered in **English**.

For more information on the programme and how to apply, please follow the links to the left. General information about the Department of Computer Science at RWTH Aachen University can be found [here](#).

News

The **Introductory Meeting** for new Software Systems Engineering students will be held on **Monday, October 11, 10:00 a.m.**

[Send this](#) [Print this](#)

- October 2010 -

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
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24	25	26	27	28	29	30
31						

News

 2010 Mailing list available
Jul 02, 2010

 SSE Alumni Mailinglist
Mar 24, 2010

[More news...](#)

Upcoming Events

 Introductory Meeting
Ahornstrasse 55
(Informatik-Zentrum),
Room 5056,
Oct 11, 2010

 Orientation Days
(Fachschaft)
Oct 11, 2010

[Upcoming events...](#)

Academic Advisor

- Your Advisor
 - faculty members of the CS department
 - assigned to each student by end of October
 - will advise you regarding the courses you should take
 - will possibly supervise your thesis
- Change of Advisors
 - you may decide to change your advisor
 - may depend on the specialization you choose
 - your new advisor has to agree
 - please contact sse@kbsg.rwth-aachen.de
 - there's no deadline for a change

Practical Things to Do ...

- Get a computer account
 - *Rechnerbetrieb Informatik* (RBI)
 - user administration office, room 4U16a, Basement, E1
 - <http://www-rbi.informatik.rwth-aachen.de/>
 - office hours:
 - Mo: 9am - 12am, 1pm - 7 pm
 - Tu-Th: 9am - 12am, 1pm - 9 pm
 - Fr: 9am - 12am, 1pm - 6 pm
- Send your current mail address to us (if it has changed since application)
- Subscribe to the [mailing list sse2012!](#)

Structure(s) in SSE – MPO2011

- There exist different versions of the **master examination rules** (“Prüfungsordnung”, MPO)
- Starting from winter term (WS 2011/2012) SSE programme (again) has a slightly new structure
- You are **“MPO2011”** (master exam. rules 2011)
let people know which version is yours!
especially ZPA, student service, and other administr.
- (old structures referred to as “MPO2005” & “MPO2010”)

SSE: The Programme at a Glance

2 years	12 – 35	0 – 35	0 – 35	0 – 35	16 – 35	ECTS
1 st Sem.	Theoretical Foundations of SSE	Communication	Data&Informat. Management	Applied Comp.Science	Software Engineering	30
2 nd Sem.						30
3 rd Sem.						30
4 th Sem.						Master's Thesis
Total						120

Table: Structure of the SSE Programme (MPO'2011)

SSE: The Programme at a Glance

What is required? (2 years = a total of 120 ECTS)

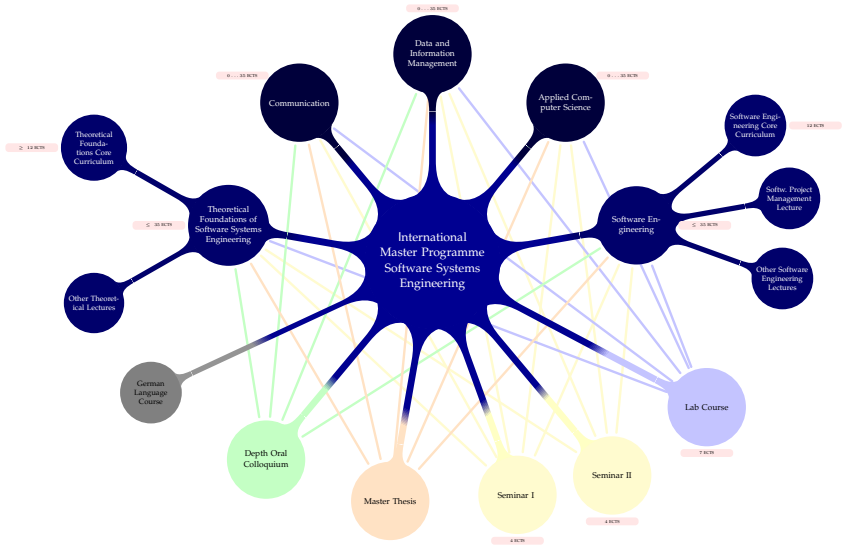
Cover courses from five areas:

- Theoretical Foundations of SSE 12 – 35 ECTS
 - **at least two courses** from “Core Subjects”:
Model Checking, Theoretical Foundations of UML, Functional Programming, Logic Programming, Theoretical Foundations of Distributed Systems
- Communication 0 – 35 ECTS
- Data & Information Management 0 – 35 ECTS
- Applied Computer Science 0 – 35 ECTS
- Software Engineering 16 – 35 ECTS
 - **mandatory** Lecture Software Project Management (4 ECTS)
 - **further 12 CP** from “Core Subjects”:
Model-based Software Engineering, Generative Software Engineering, Software Architectures, Object Oriented Software Construction, Designing Interactive Systems, Information Management, Safety and Reliability of Software-controlled Systems

SSE: The Programme at a Glance

- Courses 90 ECTS
 - Lectures in five areas 68 ECTS
 - two Seminars $2 \times 4 = 8$ ECTS
 - at least **one has to be** from Theo. Found. of SSE/Soft. Eng.
 - one Lab Course 7 ECTS
 - ! Seminars and Lab **must not be** all from same area
 - depth oral colloquium (“Schwerpunktkolloquium”) 3 ECTS
 - on 2-3 connected courses (often from one area)
 - ask examiner (professors) for possible combinations
 - German Language Course 4 ECTS
 - for german-speaking students: replaceable by additional lecture/seminar/lab/course (w/ grade!)
- Master’s Thesis 30 ECTS

For Your Orientation: The SSE Map



Sample Schedule

Fall	Spring	Fall	Spring
<p>5 courses</p> <p>3×V3Ü2 [3×6ECTS] + V2Ü1 [4ECTS] + V3Ü1 [6ECTS]</p>	<p>3 courses</p> <p>3×V3Ü2 [3×6ECTS] Proj.Mgmt. V2Ü1 [4ECTS] Seminar 1 2h [4ECTS]</p>	<p>3 courses</p> <p>3×V3Ü2 [3×6ECTS] Lab Course 4h [7ECTS] Seminar 2 2h [4ECTS]</p>	<p>Master's Thesis [30ECTS]</p> <p>Depth Oral Colloquium [3ECTS]</p>
<p>German-I</p> <p>2h [2ECTS]</p>	<p>German-II</p> <p>2h [2ECTS]</p>		

Chairs/Teaching and Research Areas

- Overview:

http://www.informatik.rwth-aachen.de/Lehreinheiten/index_eng.php

- 12 Chairs

- one “chair professor” each (head of department)
- additional professors (teaching and research areas)

- Details on chairs:

- Follow links on overview site
- Switch the language, if necessary
- Check the “teaching” and “research” links

[Homepage](#)[Home](#)[Workshops](#)[Development](#)[Research](#)[Study and Teaching](#)[Information for High School](#)[Students](#)[Services](#)[About Us](#)[Contact](#)[Helpdesk](#)[Search](#)[Login/Join](#)**Chairs****Computer Science 1**

- Algorithms and Complexity
Prof. Dr. Bernhard Wolfing
- Theoretical Computer Science
Prof. Dr. Peter Rossmanith

Computer Science 2

- Software Modeling and Verification
Prof. Dr. Ina Schabert
- Programming Languages and Verification
Prof. Dr. Jürgen Giesl
- Theory of Hybrid Systems
Prof. Dr. Eike Bartel

Computer Science 3

- Software Engineering
Prof. Dr. Manfred Hagen, Prof. Dr. Bernhard Rumpe
- Software Construction
Prof. Dr. Hans-Ludwig

Computer Science 4

- Communication Systems
Prof. Dr. Otto Spaniol
- Distributed Systems
Prof. Dr. Klaus Wehrle
- Mobile Network Performance
Prof. Dr. James Gross

Computer Science 5

- Information Systems and Database Technology
Prof. Dr. Matthias Jarke
- Knowledge-Based Systems
Prof. Gerd Altmeyer, Ph.D.
- Fraunhofer Institute for Applied Information Technology (FIT)
Prof. Dr. Thomas Berger, Prof. Wolfgang Pfalz, Ph.D., Prof. Dr. Thomas Rosa

Computer Science 6

- Human Language Technology and Pattern Recognition
Prof. Dr. Hermann Ney

Computer Science 7

- Theory of Discrete Systems
Prof. Dr. Dr.-h.c. Wolfgang Thomas
- Mathematical Foundations of Computer Science
Prof. Dr. Eike Gröbe

Computer Science 8

- Computer Graphics and Multimedia
Prof. Dr. Leif Hobbie
- Mobile Multimedia Processing
Prof. Dr. Berndt Lohse

Computer Science 9

- Data Management and Data Exploration
Prof. Dr. Thomas Seidl
- Computer-Sided Learning
Prof. Dr. Udo Schödl

Computer Science 10

- Media Computing
Prof. Dr. Jörn Böckem

Computer Science 11

- Software for Embedded Systems
Prof. Dr. Stefan Kowalewski

Computer Science 12

- Scientific Computing
Prof. Christian Bischof, Ph.D.
- Software and Tools for Computational Engineering
Prof. Dr. Uwe Naumann
- Performance Analysis of Parallel Applications
Prof. Dr. Felix Wolf
- Virtual Reality Group
Prof. Dr. Tordsten Kullen

LMIC

- IT-Security
Prof. Dr. Ulrike Meyer

ACES

- Automation and High Performance Computing
Prof. Paolo Bonifazi, Ph.D.

Courses Offered

- Filed in one of the five areas
- Information on Courses (mainly lectures)
 - **CAMPUS** (information system of RWTH)
<http://www.campus.rwth-aachen.de/rwth/all/groups.asp>
 - Master of Science (M.Sc.)
 - Software Systems Engineering (M.Sc.)
 - For German-speaking students:
 - Diplomstudiengänge → Informatik → Hauptstudium
 - Master of Science (M.Sc.) → Informatik (M.Sc.) → ...
 - Detailed descriptions also on the **chairs' websites**
 - Some courses in Electrical Engineering
- **Introductory Presentation** at beginning of each semester
this year: 2012-10-05, 14h, **Roter Hörsaal**
(presentation of courses offered this semester)

[Studiengänge](#)[Organisations- und
Lehreinheiten](#)[Hörsäle](#)[Prüfungsordnungen](#)[Suchen](#)[Login für Mitarbeiter](#)[CampusOffice für
Studierende](#)[Hardwareportal](#)[Kooperationsdaten-
bank \(DACOR\)](#)[Modulhandbücher](#)

Version 3.15.116

CAS Campus

Do, 15.09.2011

[Impressum](#) [Disclaimer](#)**Vorlesungen: WS 2011/2012**[Diplomstudiengänge \(D\)](#)[Magisterstudiengänge \(M.A.\)](#)[Staatsexamen Lehramtsstudiengänge \(GYM+GS,BK,SII\)](#)[Lehramtsbezogene Bachelorstudiengänge \(GyGe\)](#)[Lehramtsbezogene Bachelorstudiengänge \(BK\)](#)[Medizinische Studiengänge \(St\)](#)[Bachelor of Arts \(B.A.\)](#)[Bachelor of Science \(B.Sc.\)](#)[Master of Arts \(M.A.\)](#)[Master of Science \(M.Sc.\)](#)[Aufbau- \(A\), Ergänzungs- \(E\) und Zusatzstudiengänge \(Z\)](#)[Prüfungen \(Zentrales Prüfungsamt\)](#)[Sprachenzentrum](#)[Interdisziplinäres Lehrangebot](#)[Studierende unterrichten Studierende](#)[Lehrerfortbildungsverzeichnis](#)[Schülervorlesungsverzeichnis](#)[Seniorenstudium](#)[CAMPUS-Studiengang](#)**Aktuelles:**

- **CAMPUS Schulungstermine** finden Sie im [Veranstaltungsverzeichnis](#) des Rechen- und Kommunikationszentrum der RWTH Aachen.
- **Wintersemester 2011/2012** Das WS 2011/12 ist seit 27.06.2011 offiziell freigeschaltet.

Studiengänge

Organisations- und
Lehreinheiten

Hörsäle

Prüfungsordnungen

Suchen

Login für Mitarbeiter

CampusOffice für
Studierende

Hardwareportal

Kooperationsdaten-
bank (DACOR)

Modulhandbücher

Version 3.15.116

CAS Campus

RWTH AACHEN
UNIVERSITY

Do, 15.09.2011

Impressum Disclaimer

The Master Programme in **Software Systems Engineering** focuses on the design and implementation of complex software systems, including their embedding in technical and socio-technical systems. It is these latter aspects that distinguish this programme from other master programmes in Computer Science. This two year Master programme is primarily intended for international students holding a Bachelor degree in Computer Science or a closely related field.

Link: <http://dbis.rwth-aachen.de/SSE/>

E-Mail: msc-pgm@informatik.rwth-aachen.de

Software Systems Engineering (M.Sc.) ⓘ
<input type="checkbox"/> Theoretical Foundations of Software Systems Engineering
Core Subjects
[MPO2010] Theoretical Computer Science
Communication
Data and Information Management
Applied Computer Science
<input type="checkbox"/> Software Engineering
[MPO2005] Theoretical Computer Science
[MPO2005] Practical Computer Science
<input type="checkbox"/> [MPO2005] Areas of Specialization
Seminar
Lab Course
Non computer science related studies

5 areas (disregard those entries with other MPO-version prefix)

[Übersicht Master of Science \(M.Sc.\)](#)

Aktuelles:

- **CAMPUS Schulungstermine** finden Sie im [Veranstaltungsverzeichnis](#) des Rechen- und Kommunikationszentrum der RWTH Aachen.
- **Wintersemester 2011/2012** Das WS 2011/12 ist seit 27.06.2011 offiziell freigeschaltet.

Seminars & Lab Courses

- **Central allocation procedure** w/in Computer Science faculty
<https://www.graphics.rwth-aachen.de/apse>
- takes place at end of preceding semester
 - in January for summer term
 - in June for winter term
- register and choose which seminar(s)/lab you want
slots are being alloted thereupon
- E-Mail with instructions will be send
- http://web-info8.informatik.rwth-aachen.de/stube/Ankuendigung_zentrale_Anmeldung.pdf

Information about Exams

For all courses

- exam at the end of the course
- either oral (30 min) or written (60 – 90 min)
- admission to exams may have prerequisites (e.g., 50 % of homework assignments)

Registration for exams needed

- you have to register for each exam via CAMPUS
 - register for “*exam*”-event corresp. to each course
 - usually either two dates (if written) [de: Klausur] or individual dates (if oral) [de: mündl. Prüfung]
- **registration deadline:**
 - summer:** next to last Friday in May
 - winter:** next to last Friday in November

Automatic (Re-)Registration for Exams

- Automatic Registration for exams
 - Once you registered for an exam
 - if you fail, you will be re-registered automatically!
 - you can de-register a module only once (per module)!
 - If you fail an exam 3 times you fail the whole programme!
- Switching modules / Dropping a module
 - But you can change modules, i.e. drop a module and pick another (except for mandatory courses)
 - If you failed an exam twice you should drop it (come see me to do so) and switch to another module

Modulare Anmeldeverfahren

- MPO'2011" requires registration via so-called "modulare Anmeldeverfahren"
- This is done via CAMPUS Office

Sommersemester

- + registration is only possible until the week before the last full week in May!
- de-registration is only possible until the last full week in May!

Wintersemester

- + registration is only possible until the week before the last full week in November!
- de-registration is only possible until the last full week in November!

CAMPUS-Office

- web-based study organizer
 - <https://www.campus.rwth-aachen.de/office>
 - login with your matriculation number and password
- features
 - browse courses in CAMPUS
 - timetable of your courses
 - list of registered exams
 - results of exams taken so far
 - online-access to central examination office
 - online-access to student secretary
 - ...

- ▢ [Ihre Übersicht](#)
- Ihre Übersicht
- Abmelden
- Einstellungen
- Hilfe
- Online-Shops
- StOEHN
- EvaSys
- MSDNAA
- ▢ **Campus - WS 2010/2011**
- Semester wählen
- Studiengänge
- Fachbereiche
- Prüfungsordnungen
- Meine Anmeldungen
- Suche
- ▢ **Kalender**
- Stundenplan
- Tagesansicht
- Wochenansicht
- Monatsansicht
- Terminliste
- Geburtstagsübersicht
- Urlaubliste
- ▢ **Aufgaben**
- ▢ **Adressen**
- ▢ **E-Mail Zugänge**
- ▢ **Dokumente**
- ▢ **Zentrales Prüfungsamt**
- Angemeldete Prüfungen
- Notenspiegel
- Bescheinigungen
- Prüfungsan-/abmeldung
- ▢ **Studierendensekretariat**
- Anschrift ändern
- Telefonnr. speichern
- Darlehensantrag
- Bescheinigungen
- Rückmelden & Bezahlen
- ▢ **Papierkorb**

Studiengänge

[WS 2010/2011](#)

[Diplomstudiengänge \(D\)](#)

[Magisterstudiengänge \(M.A.\)](#)

[Lehramtstudiengänge \(GYM+GS,BK,StI\)](#)

[Medizinische Studiengänge \(St\)](#)

[Bachelor of Arts \(B.A.\)](#)

[Bachelor of Science \(B.Sc.\)](#)

[Master of Arts \(M.A.\)](#)

[Master of Science \(M.Sc.\)](#)

[Nichtkonsekutive internationale Masterstudiengänge \(M.Sc.\)](#)

[Aufbau-, \(A\), Ergänzungs-, \(E\) und Zusatzstudiengänge \(Z\)](#)

[Prüfungen \(Zentrales Prüfungsamt\)](#)

[Sprachzentrum](#)

[Interdisziplinäres Lehrangebot](#)

[Studierende unterrichten Studierende](#)

[Lehrerfortbildungsverzeichnis](#)

[Schülerleistungsverzeichnis](#)

[Seniorstudium](#)

[CAMPUS-Studienpass](#)

settings

CAMPUS

your (course) registrations
+ draft exam registrations

timetable

weekly view

Central Examination Office (ZPA)

registered exams (after deadline)

mark sheet

certificates

exams (de-)registration

student secretary

Central Examination Office (ZPA)

- Location
 - in the **Super C** building (Templergraben 57)
 - registration officers in **room 2.25**
 - Ms. Cuepper
Mo,Di,Do,Fr: 10.00 - 12.30; Mi: 13.00 - 16.00
- Things to do when going to ZPA
 - present your student ID
 - tell the name of the Master Programme
(i.e. Software Systems Engineering)
and version of master examination rules (MPO'2011)
 - explain what your request is about

Depth Oral Colloquium (D.O.C.)

- Oral examination on connected courses (12–18 ECTS)
 - You may have had exams in the individual courses
- 1 Agree with Professor on courses
He or she **has to agree** on combination
 - 2 Agree on a date for the D.O.C.
 - 3 Register D.O.C. with central examination office (ZPA)
at least one week before the date.
 - 4 Take the D.O.C. at the appointed date.
 5. Let examiner file your mark with ZPA

Master's Thesis

- Usually during the final six months of the programme
- Try to find a topic a bit earlier (orientation phase)
- Before:
 - Topic is usually chosen from an area that you want to put emphasize in (i.e., you are very interested in)
 - Registration is necessary
 - Prerequisites: successful completion of 60 ECTS
- After:
 - Thesis will be graded by your first supervisor and another faculty member (second supervisor)
 - You have to present and defend your thesis within an oral (makes up 3 ECTS from the total 30 ECTS)

Prolongation of residence permit

- If you cannot finalize programme in time, it is possible to prolongate your residence permit
- Procedure:
 - get your intermediate transcripts at the central examination office
 - get a certificate at the international office and a “Studienverlaufsbescheinigung” at my office
 - take certificates to aliens department of local authorities
- Further information:
 - Ulrike Brands
 - ulrike.brands@zhv.rwth-aachen.de

Transfer of Credits

- “Transfer of Credits” to speed up your studies
- What can be transferred:
 - credits from your bachelor and master programmes so far
 - programmes should have taken **equal or more than four years**
 - courses should be similar to courses in the SSE programme
 - will be filed according to SSE-Programme structure
 - maximum: **30 credits**
 - grades of transferred courses have to be better than German 3.0
- Deadline: end of November (we will send detailed instructions)
- We need:
 - letter containing which courses you want to be transferred (incl. your name, email, immatriculation #, prioritization)
 - copy of the transcripts of your previous studies
 - (official) description of grading scheme

Software Systems Engineering

Questions?

Additional Notes / Answers to Questions

- In WS 2011 the “Information Management” course was given in CAMPUS as “Implementation of Databases”
- In CAMPUS, for the lists given for the Core Subjects for the areas *Theoretical Foundations of SSE* and *Software Engineering*, look for “**Veranstaltungen**” (and do not pay too much attention to “**Module**”). The former is the list of courses offered this semester, the latter is the list of all modules that are generally considered as Core Subjects in that area.)
- If you have questions on a particular course/lecture, don't hesitate to ask with the lecturer or better yet a corresponding research assistant.