



Application Form

ECTS Label

Period 2011 – 2014

The ECTS Label is to be awarded to Higher Education Institutions who demonstrate excellence in applying the principles of the European Credit Transfer and Accumulation System (ECTS) in two main areas:

- ✓ Information Package/Course Catalogue published on the applicant's website in English;
- ✓ Student files for both incoming and outgoing students.

Both of these components of the ECTS Label application must be deemed to be of high quality for the award of an ECTS Label.



Checklist for the Information Package/Course Catalogue

- ✓ **Part 1: Information on the Institution**
 - Name and address
 - Academic calendar *etc.*

- ✓ **Part 2: Information on degree programmes**

General description:

 - Qualification awarded
 - Level of qualification *etc.*

Description of individual course units:

 - Course unit title
 - Course unit code *etc.*

- ✓ **Part 3: General information for students**
 - Cost of living
 - Accommodation *etc.*



ECTS Information Package

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[Exchange Students](#)

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In 2009, HsKA was awarded the ECTS label

Information on HsKA and general information for all students:

> [ECTS handbook \(pdf, 512 kB\)](#)

Information on the degree programs and module descriptions of the corresponding courses, of the faculties:

[Architecture and Construction Engineering AB](#) ▼

[Electrical Engineering and Information Technology EIT](#) ▼

[Geomatics G](#) ▼

[Computer Science and Business Information Systems IWI](#) ▼

[Mechanical Engineering and Mechatronics MMT](#) ▼

[Management and Engineering W](#) ▼

[General Studies](#) ▼

[Foreign Language Institute IFS](#) ▼

Part I – Information on the Institution

1. Name and contact information

Institution:	Karlsruhe University of Applied Sciences
Acronym of the institution:	HsKA
Visitor's / Delivery address:	Karlsruhe University of Applied Sciences Moltkestr. 30 76133 Karlsruhe Federal Republic of Germany
Mailing address:	Karlsruhe University of Applied Sciences Postfach 2440 76012 Karlsruhe Federal Republic of Germany
Telephone (switchboard):	+49 (0) 721/925-0
Fax (central fax):	+49 (0) 721/925-2000
Website:	www.hs-karlsruhe.de
Email:	mailbox@hs-karlsruhe.de
ECTS Institutional Coordinator:	Dr. Joachim Lembach Director, International Office email: joachim.lembach@hs-karlsruhe.de phone: +49 (0) 721/925-1090



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Mechanical Engineering and Mechatronics MMT ▲

B.Eng. Automotive Engineering

Description of > degree program (pdf, 73kB)

> Module descriptions (pdf, 178kB)

B.Eng. Mechanical Engineering

Description of > degree program (pdf, 118kB)

> Module descriptions (pdf, 211kB)

M.Sc. Mechanical Engineering and Mechatronics

Description of > degree program (pdf, 27kB)

> Module descriptions (pdf, 155kB)

M.Sc. Mechatronic and Micro-Mechatronic Systems

Description of > degree program (pdf, 31kB)

> Module descriptions (pdf, 23kB)

B.Eng. Mechatronics

Description of > degree program (pdf, 69kB)

> Module descriptions (pdf, 230kB)

Management and Engineering W ▼

General Studies ▼

Foreign Language Institute IFS ▼

General description of degree program

Name of degree program:

Automotive Engineering

Degree awarded:

Bachelor of Engineering (B.Eng.)
Option of taking the Franco-German study program in cooperation with ENSMM Besançon: The semester spent abroad at the partner university as part of the master's degree in Mechanical Engineering & Mechatronics is recognized towards a dual degree (M.Sc. from HsKA and *Ingénieur diplômé* from ENSMM)

Specialization:

Student can choose to specialize in automotive electronics or automotive powertrain from 4th semester onwards.

Educational and professional goals:

The study program deals with current technologies in mechatronic systems in vehicles. Automotive Engineering demands an interdisciplinary way of thinking and working that combines classic engineering disciplines. In addition to subject-specific skills, the course also teaches soft skills such as communication, cultivating team spirit, and creativity, all of which are practiced in project work.
The course content, aimed at preparing students for the professional world, is based on information sources including personal contacts professors and students maintain with industry, employing external teachers from industry, evaluating findings from professional associations, and other significant research.

Job description:

One in seven jobs is directly or indirectly related to the construction of vehicles. Especially in Baden-Württemberg, a large number of vehicle manufacturers and suppliers are located. The job prospects of graduates in automotive engineering are therefore excellent. Through the study, the graduates receive a broadband training.
In Automotive engineering, which can also be taken as a German-French-Program, automotive electronics is tradition, with its focus on the mechatronic systems. Since the merger with the mechanical engineering the specialization powertrain is also offered.

Program duration:

7 semesters or 7x30 = 210 ECTS

Pre-study work experience:

12 weeks

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Course title:	Mathematics 1
Course code:	FTB 111
Type of course:	Lecture
Level of course:	Bachelor
Degree Program:	Automotive Engineering
Year of study:	First year
ECTS Credits:	6
Semester:	1st semester
Name of the lecturer:	Prof. Dr. Ottmar Beucher
Course contents:	<p>Linear Algebra:</p> <ul style="list-style-type: none">- Definition of the vector and vector space- Definition of the base and the linear independence- Scalar product, orthogonality, vector product- Definition of the matrix, arithmetic with matrices- Definition of the linear mapping- Presentation of linear images by matrices- Solution of systems of linear equations- Reversible linear applications- Eigenvalues, eigenvectors, determinants- Diagonalizable matrices- Criteria for diagonalizable matrices



Complete ECTS student files

- ✓ **Three complete ECTS files concerning three outgoing students**
 - enrolled at the applicant institution
 - in three different subject areas (one per student)
 - having spent a period of study in three different countries (one per student) in 2008/09, 2009/10 or 2010/11 (up to May 2011)

Each of the three certified files consists of copies of the following documents:

- Transcript of Records provided by the applicant institution presenting the academic performance of the student before the mobility period
- Learning Agreement (with agreed changes, if applicable)
- Transcript of Records received from the partner institution after the mobility period
- Proof of academic recognition given by the applicant institution (plus English translation)



Complete ECTS student files

- ✓ **Three complete ECTS files concerning three incoming students**
 - from three different countries
 - having studied at the applicant institution in three different subject areas
 - indicating the length and dates of the stay in 2008/09, 2009/10 or 2010/11 (up to May 2011)

Each of the three certified files consists of copies of the following documents:

- Learning Agreement (with agreed changes, if applicable)
- Transcript of Records provided by the applicant institution after the mobility period