



## List of Classes Offered in the Winter Semester 2006 / 2007

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Introduction to Image Acquisition Methods \(4 CP\)](#)

Classroom lectures (2h) given by M. Welk  
Mo 11-13, Building E1.1, Lecture Hall 003

- [Ultraschall-Messtechnik \(4 CP\)](#)

Classroom lectures (2h) given by R. Lemor  
Mo 16:30-18, Building A5.1, Lecture Hall 1.22

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by B. Burgeth  
Tu, Th 11-13, Building E1.3, Lecture Hall 002

- [Pattern and Speech Recognition \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Tu 14-16, location TBA

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek  
Mo, Th 9-11, Building E1.3, Lecture Hall 002

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Recent Advances in Image Analysis and Computer Vision \(8 CP\)](#)

Seminar given by J. Weickert and M. Welk  
We 16-18, Building E1.1, Room 306

- [Attacking a Visual CAPTCHA \(8 CP\)](#)

Seminar given by T. Herfet  
We 14-16, Building C6.3, Room 10.10

- [Computer Graphics \(8 CP\)](#)

Seminar given by P. Slusallek  
We 11-13, Building E1.3, Room 013

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Artificial Intelligence \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Siekmann  
Tu, Th 14-16, Building E1.3, Lecture Hall 002

- [Telecommunications I \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu, We 9-11, Building E1.3, Lecture Hall 001

- [Selected Topics in Computational Biology: The Elements of Statistical Learning \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by T. Lengauer  
We 11-13, Building E1.4, Room 024
- [Intelligent eLearning Technologies \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by E. Melis  
Th 9-11, Building E1.3, Lecture Hall 003
- [Advanced Cryptography \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Backes  
We 14-16, Building E1.3, Lecture Hall 002
- Zerstörungsfreie Prüfverfahren Teil II  
Classroom lectures (2h) given by W. Arnold  
Th 9-11, Building E3.1, Seminar Room
- Consider also specialised classes in [Computational Linguistics](#).
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:
    - [Numerical Algorithms for Visual Computing II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by M. Breuß  
We 11-13, Building E1.3, Lecture Hall 001
    - [Theorie und Numerik Gewöhnlicher Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tu 9-11, Th 14-16, Building E2.5, Lecture Hall 1
    - [Partielle Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by D. Apouchkinskaya  
Mo 9-11, Building E2.4, Lecture Hall IV  
We 9-11, Building E2.5, Lecture Hall III
    - [Theorie und Numerik partieller Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by V. John  
Tu, Th 14-16, Building E2.5, Lecture Hall III
    - [Integraltransformationen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tu 11-13, Th 9-11, Building E2.4, Lecture Hall IV
    - [Computerunterstützte Statistik \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by M. Kohler  
Mo 14-16, Building E2.4, Lecture Hall IV
  - Classes in Computer Science:
    - [Programmierung I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by G. Smolka  
Tu 14-16, Th 11-13, Building E2.5, Lecture Hall I
    - [Softwarepraktikum](#)  
Block course (6 weeks) offered by A. Zeller during the lecturing-free period  
Daily 9-11, Building E1.3, Lecture Hall 002
    - [Computer Architecture \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Mo, We 14-16, Building E1.3, Lecture Hall 003
    - [Algorithms and Data Structures \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by R. Seidel during the lecturing-free period  
Daily 9-10, 14-15, Building E2.5, Lecture Hall 002
  - Classes in Mechatronics:

- [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mo 11-13, Building A5.1, Lecture Hall -1.03
- Classes in Physics:
  - Elementare Einführung in die Physik I (4 CP)  
Classroom lectures (2h) given by K. Jacobs  
We 11-13, Building C6.4, Großer Hörsaal
  - [Physik für Ingenieure I \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by J. Eisenmenger  
We 14-17, Building C6.4, Großer Hörsaal
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - [Soft Skill Seminar \(4 CP\)](#)  
One week during the semester break, offered by K. Meyer-Ross
  - Work as a tutor (4 CP).
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings. If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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## List of Classes Offered in the Summer Semester 2007

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Non-invasive imaging methods: MRI \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by F. Volke  
time and location by appointment
- Akustische Abbildungsverfahren (4 CP)  
Classroom lectures (2h) given by S. Hirsekorn  
Th 14-16, Building E3.1, Seminar room of the IZFP
- Röntgenprüfverfahren (4 CP)  
Classroom lectures (2h) given by W. Arnold  
time and location by appointment
- [Computational Photography \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by H. Lensch  
Fr 9-11, Room 024 (MPI)

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tu, Fr 11-13, Building E1.3, Lecture Hall 001
- [Correspondence Problems in Computer Vision \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by A. Bruhn  
We, 14-16, Building E1.3, Lecture Hall 001
- [Mathematical Morphology in Image Analysis \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by B. Burgeth  
Th, 11-13, Building E1.3, Lecture Hall 003
- [Mustererkennung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by M. Kohler  
Mo 11-13, Building E2.4, Lecture Hall IV

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Slusallek  
Mo, We 11-13, Building E1.3, Lecture Hall 001

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Engineering Technologies in Computer Graphics \(8 CP\)](#)  
Seminar given by P. Slusallek
- [Numerical Methods for Image Analysis \(8 CP\)](#)  
Seminar given by A. Bruhn and J. Weickert
- [Digital Data Communication \(8 CP\)](#)  
Seminar given by T. Herfet

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- Machine Learning (6 CP)  
Classroom lectures (2h) with tutorials (2h) given by H. Bast and J. Giesen  
Mo 11-13, Building E1.3, Lecture Hall 003
- [Statistical Learning II \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by T. Lengauer  
We 11-13, Building E1.4, the room will be announced
- [Advanced Topics in Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
time and location will be announced
- [Telecommunications II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu, We 9-11, Building E1.3, Lecture Hall 001
- [Cryptography \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Backes  
Tu, Fr 11-13, Building E1.3, Lecture Hall 002
- Grundlagen und Anwendungen der zerstörungsfreien Werkstoffprüfung und Qualitätssicherung, Teil I (4 CP)  
Classroom lectures (2h) given by W. Arnold  
Th 9-11, Building E3.1, Seminar Room

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**


(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Numerical Algorithms for Visual Computing III: Optimisation \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by M. Breuß  
Th 9-11, Building E1.3, Lecture Hall 001
  - [Computer Algebra \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by F.-O. Schreyer  
Tu, Th 11-13, Building E2.4, Lecture Hall IV
  - [Praktische Mathematik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tu 9-11, Th 14-16, Building E2.5, Lecture Hall II
  - [Differentialgeometrie \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mo 11-13, We 9-11, Building E2.5, Lecture Hall III
  - [Stochastik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Kohler  
Tu 11-13, Building E2.5, Lecture Hall III, Fr 9-11, Building E1.3, Lecture Hall 001
  - [Minimalflächen \(4 CP\)](#)  
Classroom lectures (2h) given by M. Fuchs  
Th 9-11, Building E2.4, SR 5
  - [Mathematische Optimierung \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by V. John  
Tu 11-13, Building E2.4, SR 5, We 11-13, Building E2.4, SR 3
  - [Theorie und Numerik von Integralgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tu 14-16, Building E2.5, Lecture Hall II, Th 11-13, Building E2.4, SR 5
- Classes in Computer Science:



- [Database Systems \(9 CP\)](#)  
Block course (6 weeks) offered by C. Koch during the lecturing-free period, September/October 2007
- Data Networks (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by P. Druschel and K. Gummadu  
Mo, We 14-16, Building E1.3, Lecture Hall 002
- [Embedded Systems \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by B. Finkbeiner  
Tu, Th 9-11, Building E1.3, Lecture Hall 003
- [Security \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by D. Hutter and W. Stephan  
We, Fr 9-11, Building E1.3, Lecture Hall 002
- [Selected Topics in Algorithms \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by R. Seidel  
Tu, Th 14-16, Building E1.3, Lecture Hall 001
- [Programmierung II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Zeller  
Tu 14-16, Fr 9-11, Building E2.5, Lecture Hall I
- [Systemarchitektur \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Mo, We 9-11, Building E2.5, Lecture Hall I
- Softwarepraktikum (9 CP)  
Block course (6 weeks) offered by A. Zeller during the lecturing-free period, September/October 2007
- [Programmierung für Ingenieure \(8 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet and P. Slusallek  
Tu 14-16 and 16-18, Building E1.3, Lecture Hall 002
- Classes in Mechatronics:
  - [Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Mo 9-11, Building A5.1, Lecture Hall -1.03
- Classes in Physics:
  - [Elementare Einführung in die Physik II \(4 CP\)](#)  
Classroom lectures (2h) given by K.-H. Ehses  
We 11-13, Building C6.3, Großer Hörsaal
  - Physik für Ingenieure II (5 CP)  
Classroom lectures (2h) with tutorials (1h) given by F. Müller  
We 14-16, Building C6.3, Großer Hörsaal
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - [Soft Skills Seminar \(4 CP\)](#)  
One week during semester break, in August 2007, offered by H. Bast and K. Meyer-Ross
  - Work as a tutor (4 CP).
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Course offered by K. Meyer-Ross
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Course offered by Lara-Tapia
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).



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## Breaking News

- **Information Meeting on Visual Computing**

Mo, October 22, 14:15, Building E1.1, Room 306

All Visual Computing students and other interested people are welcome.

## List of Classes Offered in the Winter Semester 2007 / 2008

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Introduction to Image Acquisition Methods \(4 CP\)](#)

Classroom lectures (2h) given by J. Weickert

We 14-16, Building E1.3, Lecture Hall 001

- [Ultraschall-Messtechnik \(4 CP\)](#)

Classroom lectures (2h) given by R. Lemor

Mo 16:30-18, Building A5.1, Room -1.22

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert

Tu, Th 10-12, Building E1.3, Lecture Hall 002

- [Dynamical Systems and Image Processing \(4 CP\)](#)

Classroom lectures (2h) given by M. Welk

Fr 10-12, Building E1.3, Lecture Hall 003

- [Pattern and Speech Recognition \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow

Mo 11-12:30, Building A5.1, Lecture Hall -1.03

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by H.P.A. Lensch

Mo, Th 8-10, Building E1.3, Lecture Hall 002

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Problems in Image Analysis \(8 CP\)](#)

Seminar given by A. Bruhn

We 16-18, Building E1.1, Room 306

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Telecommunications I \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by T. Herfet

Tu, We 8-10, Building E1.3, Lecture Hall 001



- [Kernel Methods in Machine Learning \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Hein  
We 10-12, Building E1.3, Lecture Hall 003
  - Information Retrieval and Data Mining (9CP)  
Classroom lectures (4h) with tutorials (2h) given by G. Weikum  
Tu, Th 14-16, Building E1.3, Lecture Hall 001
  - [Advanced Cryptography \(6 CP\)](#)  
Block course in the lecture-free period given by M. Backes  
by appointment
  - Zerstörungsfreie Prüfverfahren Teil II  
Classroom lectures (2h) given by U. Rabe  
Th 9-11, Building E3.1, Seminar Room
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
- Classes in Mathematics:
    - [Convex Analysis for Visual Computing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by S. Didas  
Mo 10-12, Building E1.3, Lecture Hall 003
    - [Gamma Convergence \(6 CP\)](#)  
Seminar given by B. Burgeth  
to be announced, Building E1.1, Room 306
    - [Theorie und Numerik Gewöhnlicher Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tu 8-10, Th 14-16, Building E2.5, Lecture Hall 1
    - [Theorie und Numerik Partieller Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tu, Th 14-16, Building E2.5, Lecture Hall 3
    - [Partielle Differentialgleichungen I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mo 8-10, Building E2.4, Lecture Hall IV  
We 8-10, Building E2.5, Lecture Hall III
    - [Grundlagen der Variationsrechnung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by M. Fuchs  
Th 8-10, Building E2.4, Seminar Room 3
    - [Inverse Probleme: Theorie, Numerik und Anwendung in der Bildrekonstruktion \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tu 14-16, Th 10-12, Building E2.4, Seminar Room 5
  - Classes in Computer Science:
    - [Algorithms and Data Structures \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by B. Doerr and E. Althaus  
Mo 14-16, Lecture Hall 001, We 14-16, Lecture Hall 002, both in Building E1.3
    - [Software Engineering](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Zeller and R. Premraj  
Mo, We 10-12, Building E1.3, Lecture Hall 002
    - [Computer Architecture \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Mo, We 14-16, Building E1.3, Lecture Hall 003
    - [Grundlagen von Algorithmen und Datenstrukturen \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by R. Seidel  
Mo 8-10, Building E2.5, Lecture Hall 001

- [Programmierung I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Hermanns  
Tu 14-16, Th 10-12, Building E2.5, Lecture Hall I
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mo 11-13, Building A5.1, Lecture Hall -1.03
- Classes in Physics:
  - [Elementare Einführung in die Physik I \(4 CP\)](#)  
Classroom lectures (2h) given by K. Knorr  
We 10-12, Building C6.4, Großer Hörsaal
  - [Physik für Ingenieure I \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h)  
We 14-17, Building C6.4, Großer Hörsaal
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings. If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, April 14, 2:15 pm in E1.1, Room 306

All Visual Computing students and other interested people are welcome.

## List of Classes Offered in the Summer Semester 2008

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Non-invasive imaging methods: MRI \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by F. Volke  
Th 15:45-18, IBMT, Ensheimerstr. 48, Lecture Room 1 (1st floor)
- [Geometric Modeling \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H.P. Seidel  
Tu 16-18, Th 10-12, Building E1.4, Room R.024
- Akustische Abbildungsverfahren (4 CP)  
Classroom lectures (2h) given by S. Hirsekorn  
Th 14-16, Building E3.1, Seminar room of the IZFP
- Röntgenprüfverfahren (4 CP)  
Classroom lectures (2h) given by W. Arnold  
Th 11-13, Building E3.1, Seminar room of the IZFP  
Note: On demand, the lecture can be given in English

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tu, Fr 10-12, Building E1.3, Lecture Hall 001
- [Correspondence Problems in Computer Vision \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by A. Bruhn  
We, 14-16, Building E1.3, Lecture Hall 001
- [Differential Geometric Aspects of Image Processing \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by M. Welk  
Tu, 14-16, Building E1.3, Lecture Hall 001

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Slusallek and K. Myszkowski  
Mo, We 10-12, Building E1.3, Lecture Hall 001
- [Information Visualization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by C. Görg  
Mo, We 12-14, Building E1.3, Lecture Hall 001

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Seminar on Processing of Matrix-Valued Images \(8 CP\)](#)  
Seminar given by S. Didas  
We 16-18, Building E1.1, Room 306
- [Emerging Technologies in Computer Graphics \(8 CP\)](#)  
Seminar given by P. Slusallek  
block course, time and location by appointment, see [www](#)
- [Image-based 3D Analysis \(8 CP\)](#)  
Seminar given by H. Lensch and T. Thormählen  
Mo 14-16, Building E1.4 (Max-Planck-Institut), Room 024
- [Error Correction Techniques \(8 CP\)](#)  
Seminar given by T. Herfet  
for time and location see Timeline at [www](#)
- [Visual Analytics \(8 CP\)](#)  
Seminar given by C. Görg  
Th 14-16, Building E1.3, Room 401

• **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Statistical Learning II \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by T. Lengauer  
the lectures will take place We 10-12, further details will be announced
- [Telecommunications II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu, We 8-10, Building E1.3, Lecture Hall 001
- [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fr 8:30 - 10 (can be shifted on agreement), Building C7 2, seminar room
- Consider also specialised classes in computational linguistics.
- [Cryptography \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Backes  
Tu, Fr 10-12, Building E1.3, Lecture Hall 002
- [Information Retrieval for Music and Motion \(4 CP\)](#)  
Classroom lectures (2h) given by M. Müller  
Th 16-18, Building E 1.4 (MPI), Room 24
- Grundlagen und Anwendungen der zerstörungsfreien Werkstoffprüfung und Qualitätssicherung, Teil I (4 CP)  
Classroom lectures (2h) given by U. Rabe  
Th 9-11, Building E3.1, Seminar Room
- Praktikum zu Zerstörungsfreie Prüfverfahren Teil I (4 CP)  
Block course offered by U. Rabe during the lecturing-free period,  
21.7.-25.7., more details by appointment

• **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Numerical Algorithms for Visual Computing I \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Breuß  
Th 14-16, Building E1.3, Lecture Hall 001
  - [Integral Equations for Visual Computing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by B. Burgeth  
Th 10-12, Building E1.3, Lecture Hall 001

- [Praktische Mathematik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by V. John  
We 8-10, Building E1.3, Lecture Hall 003, Th 14-16, Building E2.5, Lecture Hall II
- [Differentialgeometrie \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Tu 10-12, Building E2.4, Lecture Hall IV, We 10-12, Building E2.5, Lecture Hall III
- [Optimierung \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A.K. Louis  
Di 10-12, Building E2.5, Lecture Hall 003, Th 10-12, Building E2.4, Lecture Hall IV
- Classes in Computer Science:
  - [Algorithms and Data Structures \(9 CP\)](#)  
Block course including tutorials given by K. Mehlhorn and R. Seidel  
September 1st until October 2nd, more details at course webpage
  - [Convex Optimization and Modelling \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Hein  
Lectures: Mo, 14-16, Building E2.4, HS II, Tutorials: Tu, 16-18, Building E1.3, SR016
  - [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by E. Althaus and A. Karrenbauer  
Tu, Th 14-16, Building E1.3, Lecture Hall 003
  - [Artificial Intelligence \(9 CP\)](#)  
Block course offered by W. Wahlster during the lecturing-free period,  
September/October 2008
  - Security (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by W. Stephan  
We, Fr 8-10, Building E1.3, Lecture Hall 002
  - [Systemarchitektur \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Mo, We 8-10, Building E2.5, Lecture Hall I
  - [Softwarepraktikum \(9 CP\)](#)  
Block course (6 weeks) offered by A. Zeller during the lecturing-free period,  
September/October 2008
  - [Programmierung für Ingenieure \(8 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu 14-16 and 16-18, Building E1.3, Lecture Hall 002
- Classes in Mechatronics:
  - [Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Mo 9-11, Building A5.1, Lecture Hall -1.03
- Classes in Physics:
  - [Elementare Einführung in die Physik II \(4 CP\)](#)  
Classroom lectures (2h) given by K. Knorr  
We 10-12, Building C6.3, Großer Hörsaal
  - [Physik für Ingenieure II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by R. Seemann  
Fr 15-17, Building C6.3, Großer Hörsaal
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science

- The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings. If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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## Breaking News

- **Information Meeting on Visual Computing**

Mo, October 20, 14:15, Building E1.1, Room 306

All Visual Computing students and other interested people are welcome.

## List of Classes Offered in the Winter Semester 2008 / 2009

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Introduction to Image Acquisition Methods \(4 CP\)](#)

Classroom lectures (2h) given by A. Bruhn

We 14-16, Building E1.3, Lecture Hall 001

- [Nonlinear Computational Geometry \(6 CP\)](#)

Course given by M. Hemmer and M. Sagraloff

Fr 10-12, Building E1.4 (MPI), Room 024

- **Ultraschall-Messtechnik (Ultrasound Measurement Technologies) (4 CP)**

Classroom lectures (2h) given by R. Lemor

Mo 16:30-18, Building A5.1, Room -1.22

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert

Tu, Th 10-12, Building E1.3, Lecture Hall 002

- [Probabilistic Methods in Image Analysis \(6 CP\)](#)

Classroom lectures (3h) with tutorials (1h) given by B. Burgeth

Tu 12-14, Fr 8-10, Building E1.3, Lecture Hall 001

- [Pattern and Speech Recognition \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow

Tu 14-16, Building C7.2, Seminar Room

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek

Mo, Th 8-10, Building E1.3, Lecture Hall 002

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Modern Methods in Image Analysis \(8 CP\)](#)

Seminar given by A. Bruhn and J. Weickert

Tu, 16-18, Building E1.1, Room 306

- **Seminar on Computer Graphics (8 CP)**

Seminar given by P. Slusallek

Time and location to be announced

- [Seminar on Simulated Reality \(8 CP\)](#)  
Seminar given by G. Demme, R. Jochem and H. Hoffmann  
Time and location by appointment

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Telecommunications I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu, We 8-10, Building E1.3, Lecture Hall 001
- [Machine Learning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Hein  
We, Fr 10-12, Building E1.3, Lecture Hall 003
- [Music Information Retrieval \(8 CP\)](#)  
Seminar given by M. Müller  
Thu. 16-18, Building E1.4 (MPI), Room 23
- [Future Media Internet \(FMI\) \(Video- and Audiotransport - A New Paradigm\) \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu, We 12-14, Building E1.3, Lecture Hall 003
- Advanced Cryptography (6 CP)  
Block course in the lecture-free period (march 2009) given by M. Backes  
by appointment
- Zerstörungsfreie Prüfverfahren Teil II  
Classroom lectures (2h) given by U. Rabe  
Prospective Th 8:30-10, Building E3.1, Seminar Room, begin by appointment
- Praktikum Zerstörungsfreie Prüfverfahren Teil II  
Block course in the lecture-free period given by U. Rabe  
IZFP, Campus E31, begin is the 16th february 2009

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Numerical Algorithms for Visual Computing II \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Breuß  
Mo 14-16, Building E1.3, Lecture Hall 001
  - [Stable Methods for Least-Squares Problems \(3 CP\)](#)  
Classroom lectures (2h) given by A. Lakhal  
We 10-12, Building E2.4, Lecture Hall 4
  - A Posteriori Estimates for Partial Differential Equations (3 CP)  
Classroom lectures (4h) with tutorials (2h) given by S. Repin  
First meeting: Friday, July 24, 2008, 12:00h, Bld. E2.5, Lecture hall 1,  
place and time for lecture and tutorials are fixed after the first meeting
  - [Theorie und Numerik Gewöhnlicher Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by V. John  
We 12-14, Th 14-16, Building E2.5, Lecture Hall 1
  - [Integraltransformationen: Theorie, Numerik und Anwendungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tu 14-16, Th 10-12, Building E2.5, Lecture Hall 2
  - [Optimierung II \(3 CP\)](#)  
Classroom lectures (2h) given by A. Louis  
by appointment
  - [Partielle Differentialgleichungen I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Groves

- Mo, We 10-12, Building E1.3, Lecture Hall 3
- Stochastik (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by A. Meister  
Mo 10-12, Building E2.4, Lecture Hall 4, and We 10-12, Building E2.5, Lecture Hall 3
- Nichtparametrische Dichteschätzung (5 CP)  
Classroom lectures (2h) given by A. Meister  
Mo 14-16, Building E2.4, Lecture Hall 4
- Classes in Computer Science:
  - [Embedded Systems \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by B. Finkbeiner  
Tu, Th 14-16, Building E1.3, Lecture Hall 002
  - [Computer Architecture 2 \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Mo, We 10-12, Building E1.3, Lecture Hall 001
  - [Massively Parallel Computing with CUDA \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by H. Lensch and R. Strzodka  
Mo 10-12, Building E1.4, Room 024
  - [Grundzüge von Algorithmen und Datenstrukturen \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by R. Seidel  
Th 12-14, Building E2.5, Lecture Hall 001
  - [Programmierung I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by G. Smolka  
Tu 14-16, Th 10-12, Building E2.5, Lecture Hall I
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mo 10-12, Building A5.1, Lecture Hall -1.03
- Classes in Physics:
  - Elementare Einführung in die Physik I (4 CP)  
Classroom lectures (2h)  
We 10-12, Building C6.3, Großer Hörsaal
  - Physik für Ingenieure I (5 CP)  
Classroom lectures (2h) with tutorials (1h)  
Fr 15-17, Building C6.3, Großer Hörsaal
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings. If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).



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- **Information Meeting on Visual Computing**

Monday, April 20, 2:15 pm in E1.1, Room 306

All Visual Computing students and other interested people are welcome.

## List of Classes Offered in the Summer Semester 2009

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Algorithmic Geometry \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by R. Seidel  
Tu 14-16, Th 8-10, Building E1.3, Lecture Hall 003
- Akustische Abbildungsverfahren (4 CP)  
Classroom lectures (2h) given by S. Hirsekorn  
Th 14-16, Building E3.1, Seminar room of the IZFP
- Röntgenprüfverfahren (4 CP)  
Classroom lectures (2h) given by U. Rabe  
Th 10-12, Building E3.1, Seminar room of the IZFP  
Note: On demand, the lecture can be given in English
- Bildgebende Verfahren (NMR), Magnetic Resonance Imaging (4 CP)  
Classroom lectures (2h) given by F. Volke  
Th 16:30-18, IBMT St. Ingbert, Seminar room 1st floor  
Note: On demand, the lecture can be given in English

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tu, Fr 10-12, Building E1.3, Lecture Hall 001
- [Correspondence Problems in Computer Vision \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by A. Bruhn  
We, 14-16, Building E1.3, Lecture Hall 001
- [Dynamical Systems and Image Processing \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by M. Welk  
Tu, Fr 14-16, Building E1.3, Lecture Hall 001

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- Realistic Image Synthesis (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by P. Slusallek and K. Myszkowski  
Mo, We 10-12, Building E1.3, Lecture Hall 001  
(For a first impression of the content of the lecture click [here](#).)

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Seminar Optimisation for Visual Computing \(8 CP\)](#)  
Seminar given by M. Breuß and B. Burgeth  
time slot to be announced, Building E1.1, Room 306
- Seminar on Computer Graphics (8 CP)  
Seminar given by P. Slusallek  
time and place to be announced
- [Selected Topics \(8 CP\)](#)  
Seminar given by T. Herfet  
time and location by appointment, see kick-off meeting
- [Computer Vision and Visual Special Effects \(8 CP\)](#)  
Seminar given by T. Thormählen and E. Eisemann  
Mo 16-18, Building E1.4 (Max-Planck-Institut), Room 024
- [Geometric Correspondence Problems - from Shape Matching to 3D Movie Making \(8 CP\)](#)  
Seminar given by M. Wand  
Time and location by appointment after first meeting, see www

• **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Telecommunications II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu, We 8-10, Building E1.3, Lecture Hall 001
- [Music Processing \(4 CP\)](#)  
Classroom lectures (2h) given by M. Müller  
Th 16-18, Building E 1.4 (MPI), Room 24
- [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fr 8:30-10, Building C7 2, Seminar room
- [Search methods in Natural Language Processing \(4 CP\)](#)  
Classroom lectures (2h) given by H. Horacek  
Tu 14-16, Building E1.3, Seminar room 015
- [Elements of Statistical Learning 1 \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Lengauer  
We 10-12, Building E1.4 (MPI), Seminar room 0.24
- [Bayesian Machine Learning: Graphical Models and Approximate Inference \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Seeger  
Fr 8-10, Building E1.4 (MPI), Seminar room 0.24
- Grundlagen und Anwendungen der zerstörungsfreien Werkstoffprüfung und Qualitätssicherung, Teil I (4 CP)  
Classroom lectures (2h) given by C. Boller  
Th 8-10, Building E3.1, IZFP, Seminar room
- Praktikum zu Zerstörungsfreie Prüfverfahren Teil I (4 CP)  
Block course offered by U. Rabe during the lecturing-free period,  
Begin: 03.08.2009, more details by appointment
- Consider also specialised classes in computational linguistics.

• **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Numerical Algorithms for Visual Computing III \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Breuß  
Th 10-12, Building E1.3, Lecture Hall 001



- [Numerical Methods for Nonlinear Problems \(4 CP\)](#)  
Classroom lectures (2h) given by A. Lakhal  
Th 10-12, Building E2.4, Lecture Hall IV
- [Discrete Geometry \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by R. Raman  
We 10-12, Building E1.4 (MPI), seminar room 0.24
- [Numerik partieller Differentialgleichungen - eine elementare Einführung \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by V. John  
Tu 8-10, Building E2.4, Lecture Hall IV, Tu 8-10, Building E2.5, Lecture Hall III
- [Optimierung \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by V. John  
Tu 12-14, We 10-12, Building E2.5, Lecture Hall 003
- [Differentialgeometrie \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Groves  
We 16-18, Th 8-10, Building E1.3, Lecture Hall 001
- [Wahrscheinlichkeitstheorie und Statistik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by C. Bender  
We 14-16, Building E2.5, Lecture Hall II, Th 14-16, Building E2.5, Lecture Hall III
- [Funktionentheorie \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by R. Schulze-Pillot  
Mo 14-16, Building E2.5, Lecture Hall 003, We 12-14, Building E2.5, Lecture Hall 002,  
however, these times are negotiable, see information following the given link
- Classes in Computer Science:
  - [Artificial Intelligence \(9 CP\)](#)  
Block course offered by W. Wahlster during the lecturing-free period,  
August/September 2009
  - [Computer Architecture I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Mo, We 14-16, Building E1.3, Lecture Hall 003
  - [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by K. Elbassioni and J. Mestre  
Mo 8-10, Th 10-12, Building E1.3, Lecture Hall 002
  - [Software Engineering \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Zeller  
Tu, Th 8:30-10, Building E1.3, Lecture Hall 002
  - [Selected Topics in Algorithms \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by K. Mehlhorn  
Mo, Fr 14-16, Building E1.4 (MPI), Seminar room 0.24
  - [Programmierung II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Hack  
Tu 14-16, Fr 8-10, Building E2.5, Lecture Hall I
  - [Systemarchitektur \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by R. Wilhelm  
Mo, We 8-10, Building E2.5, Lecture Hall I
  - Softwarepraktikum (9 CP)  
Block course (6 weeks) offered by A. Zeller during the lecturing-free period  
More details to be announced  
Attention: Earned credits are taken into account in the winter semester 2009/2010
  - [Programmieren für Ingenieure \(8 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu 14-18, Building E1.3, Lecture Hall 002
- Classes in Mechatronics:

- [Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Mo 10-12, Building A5.1, Lecture Hall -1.03
- Classes in Physics:
  - Elementare Einführung in die Physik I (4 CP)  
Classroom lectures (2h) given by P. Huber  
We 10-12, Building C6.3, Großer Hörsaal
  - Physik für Ingenieure I (5 CP)  
Classroom lectures (2h) with tutorials (1h) given by R. Seemann  
Fr 15-17, Building C6.3, Großer Hörsaal
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

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## Breaking News

- **Information Meeting on Visual Computing**

Our postponed Visual Computing Meeting will take place on Thursday, October 15, at 4:15 pm in E1.1, Room 306.

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2009 / 2010

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Introduction to Image Acquisition Methods \(4 CP\)](#)

Classroom lectures (2h) given by A. Bruhn

Tu 14-16, Building E1.3, Lecture Hall 001

- [Computational Geometry and Geometric Computing \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by E. Berberich, M. Sagraloff and K. Mehlhorn

Mo, Fr 14-16, Building E1.3, Lecture Hall 003

- [Ultraschall-Messtechnik \(Ultrasound Measurement Technologies\) \(4 CP\)](#)

Classroom lectures (2h) given by R. Lemor

Mo 16:30-18, Building A5.1, Room -1.22

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert

Tu, Th 10-12, Building E1.3, Lecture Hall 002

- [Geometric Foundations of Computer Vision \(5 CP\)](#)

Classroom lectures (2h) with tutorials (1h) given by M. Welk

We 16-18, Building E1.3, Lecture Hall 003

- [Pattern and Speech Recognition \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow

Tu 14-16, Building C7.2, Seminar Room

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek

Mo, Th 8-10, Building E1.3, Lecture Hall 002

- [Character Animation \(3 CP\)](#)

Classroom lectures (2h) given by M. Kipp and A. Heloir

Mo 14-16, Building E1.3, Lecture Hall 001

- [Special Topics in Scientific Visualization \(3 CP\)](#)

Classroom lectures (2h) given by J. Krüger

We 14-16, Building E 1.3, Lecture Hall 001

- [Scientific Visualization on Mobile Devices \(6 CP\)](#)  
Lab course (4h) given by J. Krüger  
meetings by appointment, see webpage
- **Seminars:**  
(You need at least 8 graded CP from this category.)
  - [Seminar on Computer Graphics \(8 CP\)](#)  
Seminar given by P. Slusallek  
Time and location to be announced
  - [Seminar on Computational Photography and Videography \(8 CP\)](#)  
Seminar given by C. Theobalt and I. Ihrke  
We 14-16, Building E1.4, Room 019
  - [Seminar: Computertomographie \(6 CP\)](#)  
Seminar given by A. Louis  
Tu 16-18, Building E2.4, Seminar Room 5
- **Classes in Image Related Areas in Computer Science and Other Disciplines:**  
(From this category you need 9 graded CP.)
  - [Telecommunications I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu, We 8-10, Building E1.3, Lecture Hall 001
  - [Machine Learning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Hein  
We 14-16, Fr 10-12, Building E1.3, Lecture Hall 003
  - [Elements of Statistical Learning 2 \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Lengauer  
We 10-12, Building E1.4 (MPI), Seminar Room 0.24
  - [Information Retrieval and Data Mining \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by G. Weikum  
Tu, Th 14-16, Building E1.4, Seminar Room 0.24
  - [Music Processing \(8 CP\)](#)  
Seminar given by M. Müller  
Thu. 15-18, bi-weekly, Building E1.4 (MPI), Room 24
  - [Future Media Internet \(FMI\) \(Video- and Audiotransport - A New Paradigm\) \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu, We 12-14, Building E1.3, Lecture Hall 003
  - [Foundations of Cryptography \(6 CP\)](#)  
Block course given by M. Backes  
in the lecturing-free period
  - [Distant Speech Recognition \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by J. Mc Donough  
Tu, Th 14-16, Building C7.1, Seminar Room U15 (-1.15)
  - Zerstörungsfreie Prüfverfahren Teil II  
Classroom lectures (2h) given by C. Boller  
Prospective Th 8:30-10, Building E3.1, Seminar Room,  
beginning at the 22nd october
  - Praktikum Zerstörungsfreie Prüfverfahren Teil II  
Block course in the lecture-free period given by U. Rabe  
IZFP, Campus E3.1, begin is in february 2010
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:

- [Mathematical Methods for Imaging \(3 CP\)](#)  
Classroom lectures (2h) given by A. Lakhal  
We 10-12, Building E2.4, Seminar Room 3  
**Attention:** The time of this course has changed again!
- [Fractional Differential Equations \(8 CP\)](#)  
Seminar given by M. Welk  
Regular meetings to be appointed at first meeting
- [Numerik Partieller Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tu 14-16, Building E2.5, Lecture Hall 2, Th 8-10, Building E2.4, Seminar Room 5
- [Theorie und Numerik Gewöhnlicher Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tu 8-10, Th 14-16, Building E2.5, Lecture Hall 1
- [Integralgleichungen: Theorie und Numerik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tu 8-10, Th 14-16, Building E2.5, Lecture Hall 3
- [Partielle Differentialgleichungen I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mo, Th 12-14, Building E2.4, Lecture Hall IV
- [Stochastik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by C. Bender  
Mo 14-16, We 8-10, Building E2.4, Lecture Hall IV
- Classes in Computer Science:
  - [Algorithms and Data Structures \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Friedrich, F. Neumann, and R. van Stee  
Mo, We 12-14, Building E1.3, Lecture Hall 001
  - [Optimization II \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by K. Elbassioni and J. Mestre  
Mo 10-12, Building E1.4, Seminar Room 0.24
  - [Multicore System Architecture \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Mo, We 10-12, Building E1.3, Lecture Hall 001
  - [Exploratory Data Analysis and Interactive Visualizations \(9 CP\)](#)  
Classroom lectures (2h) with laboratory work (4h) given by M. Sips and A. Mazeika  
for more information see the webpage
  - [Programmierung I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Hermanns  
Tu 14-16, Th 10-12, Building E2.5, Lecture Hall I
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mo 10-12, Building A5.1, Lecture Hall -1.03
- Classes in Physics:
  - [Elementare Einführung in die Physik I \(4 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by A. Ott  
We 10-12, Building C6.4, Großer Hörsaal (0.12)
  - [Physik für Ingenieure I \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by R. Seemann  
Fr 15-17, Building C6.4, Großer Hörsaal (0.12)

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
- The [International Office](#) of Saarland University offers a number of [German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings. If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **UPDATES**

See the new information on "Programmieren für Ingenieure" and the **new seminar** "Recent Topics in Computer Graphics and Visualization".

## List of Classes Offered in the Summer Semester 2010

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Computational Photography \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by I. Ihrke  
We 14-16, Building E 1.7, Room 001
- [Geometric Modeling \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Wand  
Tu 14-16, Th 14-16, Building E1.4, Seminar Room 0.21
- NMR-MRI Non-Invasive Image Acquisition (4 CP)  
Classroom lectures (2h) given by F. Volke  
Th 16:30-18, IBMT St. Ingbert, Ensheimer Str. 48, Saal 1, 1st floor
- Akustische Abbildungsverfahren (4 CP)  
Classroom lectures (2h) given by S. Hirsekorn  
Th 14-16, Building E3.1, Seminar room of the IZFP
- Röntgenprüfverfahren (4 CP)  
Classroom lectures (2h) given by U. Rabe  
Th 10-12, Building E3.1, Seminar room of the IZFP  
Note: On demand, the lecture can be given in English

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Bruhn  
Tu, Fr 10-12, Building E1.3, Lecture Hall 001
- [Computer Vision and its Applications in Graphics \(4 CP\)](#)  
Classroom lectures (2h) with homework assignments given by T. Thormählen  
Mo, 16-18, Building E1.4 (MPI), Room 024

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Slusallek, K. Myszkowski and V. Pegoraro  
Mo, We 10-12, Building E1.3, Lecture Hall 001
- [Computer Vision and its Applications in Graphics \(4 CP\)](#)  
Classroom lectures (2h) with homework assignments given by T. Thormählen  
Mo, 16-18, Building E1.4 (MPI), Room 024

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Seminar on Emerging Methods for Image Compression \(8 CP\)](#)  
Seminar given by M. Mainberger, C. Schmaltz and M. Breuß  
Th, 16-18, Building E1.1, Room 306
- [Seminar on Computational Geometry and Geometric Computing \(8 CP\)](#)  
Seminar given by E. Berberich, B. Galehouse and M. Sagraloff  
more information on time and place will be given in the first meeting April 14th, see webpage
- [Seminar on Recent Topics in Computer Graphics and Visualization \(8 CP\)](#)  
Seminar given by J. Krüger  
First meeting at Th, 29th April, 14:00 s.t., MMCI Building E1.7, Room 3.01

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Wahlster and M. Kipp  
Tu 12-14, Th 14-16, Building E1.3, Lecture Hall 002
- [Music Processing \(4 CP\)](#)  
Classroom lectures (2h) given by M. Müller  
Th 16-18, Building E 1.4 (MPI), Seminar Room 0.24
- [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
time and place: prospective Fr 8:30-10, Building C7 2, Seminar room
- [Bayesian Machine Learning: Graphical Models and Approximate Inference \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Seeger  
Fr 8:30-10, Building E1.4 (MPI), Seminar Room 0.24
- Informationsverarbeitung in der Produktionstechnik (6 CP)  
Classroom lectures (2h) and additional lab ("Praktikum") (2h) given by N. Avgustinov  
(English on request).  
Lectures: We 14-16, Building A4.2, Seminar Room 1.12.1. Lab: By appointment.
- Grundlagen und Anwendungen der zerstörungsfreien Werkstoffprüfung und Qualitätssicherung, Teil I (4 CP)  
Classroom lectures (2h) given by C. Boller  
time and place: prospective Th 8-10, Building E3.1, IZFP, Seminar room
- Praktikum zu Zerstörungsfreie Prüfverfahren Teil I (4 CP)  
Block course offered by U. Rabe during the lecturing-free period
- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Numerical Algorithms for Visual Computing I \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Breuß  
Th 10-12, Fr 14-16, Building E1.3, Lecture Hall 001
  - [Convex Optimization and Modelling \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Hein  
We, 10-12, Building E1.3, Lecture Hall 003
  - [Praktische Mathematik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
We 8-10, Tu 14-16, Building E2.5, Lecture Hall II

- [Numerik linearer Gleichungssysteme \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by F. Kemm  
Mo 16-18, Building E2.5, Lecture Hall III
- [Modellieren mit partiellen Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
We 8-10, Tu 14-16, Building E2.5, Lecture Hall III
- [Optimierung \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tu 14-16, Th 10-12, Building E2.5, Lecture Hall 003
- [Differentialgeometrie \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Groves  
Mo 16-18, Building E1.3, Lecture Hall 001, Fr 10-12, Building E1.3, Lecture Hall 003
- [Minimalflächen \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Fuchs  
Th 10-12, Building E2.4, Seminar Room 3 (2.16)
- [Partielle Differentialgleichungen II \(9 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Fuchs  
Mo, Th 12-14, Building E2.4, Lecture Hall IV
- [Stochastische Prozesse \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by H. Zaehle  
Th 8-10, Building E2.4, Seminar Room 5 (2.15)
- [Analysis auf Mannigfaltigkeiten \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by R. Grzibovskis  
We 14-16, Fr 14-16, Building E2.4, Seminar Room 5 (2.15)
- Classes in Computer Science:
  - [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by K. Mehlhorn, N. Megow, and J. Mestre  
Mo, We, 14-16, Building E1.3, Lecture Hall 003
  - [Testing and Debugging \(9 CP\)](#)  
Course offered by G. Fraser and A. Zeller  
details to be announced on the course web page
  - [Systemarchitektur \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Mo, We, 8-10, Building E2.2, Lecture Hall
  - [Softwarepraktikum \(9 CP\)](#)  
Course offered by A. Zeller  
this course is usually offered as a block course during the lecturing-free period, more details to be announced
  - [Programmierung II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Hack  
Tu 14-16, Fr 8-10, Building E2.2
  - [Programmieren für Ingenieure \(8 CP\)](#)  
(Programming for Engineers, slides are in English)  
Classroom lectures (2h) with tutorials (3h) given by J. Krüger  
Tu 14-18, Building E1.3, Lecture Hall 002  
Students should only attend this course if they do **not** have a Bachelor degree in Computer Science.
- Classes in Mechatronics:
  - [Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Mo 10-12, Building A5.1, Lecture Hall -1.03
- Classes in Physics:

- Elementare Einführung in die Physik II (4 CP)  
Classroom lectures (2h) given by J. Eschner  
We 10-12, Building C6.4, Großer Hörsaal
- Physik für Ingenieure II (5 CP)  
Classroom lectures (2h) with tutorials (1h) given by R. Seemann  
Fr 15-17, Building C6.4, Großer Hörsaal

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
- The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings. If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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## Breaking News

- **Information Meeting on Visual Computing**

Monday, October 18, at 14:15 pm in E1.1, Room 306.

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2010 / 2011

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Introduction to Image Acquisition Methods \(4 CP\)](#)

Classroom lectures (2h) given by O. Vogel

We 16-18, Building E1.1, Room 3.06

- [Ultraschall-Messtechnik \(Ultrasound Measurement Technologies\) \(4 CP\)](#)

Classroom lectures (2h) given by R. Lemor

Mo 16:30-18, Building A5.1, Room -1.22

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by A. Bruhn

Tu 14-16, Th 12-12, Building E1.3, Lecture Hall 002

- [Correspondence Problems in Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by H. Zimmer

We, 14-16, Building E1.3, Lecture Hall 003

- [Image and Video Compression \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by C. Schmaltz

Mo, 14-16, Building E1.3, Lecture Hall 3

- [Pattern and Speech Recognition \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow

Tu 14-16, Building C7.2, Seminar Room

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek and V. Pegoraro

Mo, We 14-16, Building E1.3, Lecture Hall 001

- [Special Topics in Scientific Visualization \(3 CP\)](#)

Classroom lectures (2h) given by J. Krüger

We 14-16, Building E 1.3, Lecture Hall 001

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Recent Advances in Image Processing and Computer Vision \(8 CP\)](#)

Seminar given by M. Breuß and J. Weickert

Tu, 16-18, Building E1.1, Room 306

- [Seminar on Texture Synthesis and Analysis Techniques for Images and 3D Geometry - from Automatic Photo Retouch to Inverse Procedural Modeling \(8 CP\)](#)  
Seminar given by M. Wand  
Block seminar February 21st to 25th 2011, Campus E 1 4 (MPI Building), Room 024
  - [Research Topics in Computational Photography \(8 CP\)](#)  
Seminar given by I. Ihrke  
Mo 16-18, Building E1.7, Room 001
  - [Recent Topics in Computergraphics and Visualization \(8 CP\)](#)  
Seminar given by J. Krüger  
see webpage for more information
- [The Digital Video Broadcasting Project \(8 CP\)](#)  
Seminar given by T. Herfet  
for more information, see the webpage of the course
- **Classes in Image Related Areas in Computer Science and Other Disciplines:**  
(From this category you need 9 graded CP.)
  - [Telecommunications I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu, We 8-10, Building E1.3, Lecture Hall 001
  - [Machine Learning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Hein  
Mo, 10.15-12, Building E1.3, Lecture Hall 003, and Fr, 10.15-12, E1 3, Building E1.3, Lecture Hall 001
  - [Future Media Internet \(FMI\) \(Video- and Audiotransport - A New Paradigm\) \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu, We 12-14, Building E1.3, Lecture Hall 003
  - [Text to Speech Synthesis \(3 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by B. Möbius  
We 16-18, Building E1.3, Lecture Hall 001
  - [Mathematische Methoden der Bildrekonstruktion \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tu 14-16, Building E1.3, Lecture Hall 001, Th 8-10, Building E1.3, Lecture Hall 003
  - Zerstörungsfreie Prüfverfahren Teil II  
Classroom lectures (2h) given by C. Boller  
Prospective Th 8:30-10, Building E3.1, Seminar Room,  
beginning in october
  - Praktikum Zerstörungsfreie Prüfverfahren Teil II  
Block course in the lecture-free period given by U. Rabe  
IZFP, Campus E3.1, begin is in february
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:
    - [Convex Analysis for Image Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by S. Setzer  
Mo, Th 16-18, Building E1.3, Lecture Hall 001
    - [Numerical Algorithms for Visual Computing II \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Breuß  
We, Fr 10-12, Building E1.3, Lecture Hall 003
    - [Computational Methods for Inverse Problems \(3 CP\)](#)  
Classroom lectures (2h) given by A. Lakhal



We 10-12, Building E2.4, Seminar Room 7

**Attention:** The time of this course has changed again!

- [Numerical Methods for Partial Differential Equations \(6 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by F. Kemm  
We 14-16, Building E2.4, Seminar Room 7
- [Theorie und Numerik Gewöhnlicher Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tu 8-10, Th 14-16, Building E1.3, Lecture Hall 002
- [Partielle Differentialgleichungen I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Groves  
Mo, Th 12-14, Building E2.4, Lecture Hall IV
- [Stochstische Numerik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Di 8-10, Th 14-16, Building E1.3, Lecture Hall 001
- [Freie Randwertprobleme \(4 CP\)](#)  
Classroom lectures (2h) with tutorials given by D. Apushkinskaya  
Di 12-14, Building E2.4, Lecture Hall IV
- [Stochastik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Zähle  
Mo 14-16, We 8-10, Building E2.4, Lecture Hall IV
- Classes in Computer Science:
  - [Optimization II: Approximation and Online Algorithms \(9CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by K. Mehlhorn, C.-C. Huang, and R. van Stee  
Tu 10-12, Th 12-14, Building E1.4, Lecture Room 023
  - [Models of Computation: An Algorithmic Perspective \(9CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by K. Mehlhorn, K. Panagiotou, and R. Spöhel  
Mo 14-16, Th 14-16, Building E1.4, Lecture Room 0.24
  - [Embedded Systems \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by R. Wilhelm and C. Steger  
Tu 10-12, Th 14-16, Building E1.3, Lecture Hall 003
  - [Grundzüge von Algorithmen und Datenstrukturen \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by M. Bläser  
Th 12-14, Building E1.3, Lecture Hall 002
  - [Programmierung 2 \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Hack  
Mo 14-16, Building E1.3, Lecture Hall 002, and Th 14-16, Building E2.2, Lecture Hall
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mo 10-12, Building A5.1, Lecture Hall -1.03
- Classes in Physics:
  - Elementare Einführung in die Physik I (4 CP)  
Classroom lectures (2h) with tutorials (2h) given by R. Birringer  
We 10-12, Building C6.4, Großer Hörsaal (0.12)

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science

- [English as a Foreign Language for CS Students \(6 CP\)](#).  
Lectures (4h) offered by the Max Planck Institute for Computer Science
- The [International Office](#) of Saarland University offers a number of [German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

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- **Information Meeting on Visual Computing**

Monday, April 11, 2:15 pm in E1.1, Room 306

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Summer Semester 2011

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- Computational Photography (6 CP)  
Classroom lectures (2h) with tutorials (2h) given by I. Ihrke  
Mo 10-12, Building E 1.4 Raum 024
- [Acquisition, Analysis and Management of Biological Image Data \(5 CP\)](#)  
Classroom lectures (2h) with tutorial (1h) given by O. Müller  
We 16-18, Building E2.1 Seminar Room 0.07
- NMR-MRI Non-Invasive Image Acquisition (4 CP)  
Classroom lectures (2h) given by F. Volke  
Th 16:30-18, IBMT St. Ingbert, Ensheimer Str. 48, Saal 1, 1st floor
- Akustische Abbildungsverfahren (4 CP)  
Classroom lectures (2h) given by S. Hirsekorn  
Th 14-16, Building E3.1, Seminar room of the IZFP
- Röntgenprüfverfahren (4 CP)  
Classroom lectures (2h) given by U. Rabe  
Th 10-12, Building E3.1, Seminar room of the IZFP  
Note: On demand, the lecture can be given in English

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tu, Fr 10-12, Building E1.3, Lecture Hall 001
- [Advanced Image Analysis \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by H. Zimmer  
Th 10-12, Building E2.4, Seminar Room 5
- [High-Level Computer Vision \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by B. Schiele  
We 14-16, Building E1.4, Seminar Room 0.24

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- Realistic Image Synthesis (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by P. Slusallek  
Mo, We 10-12, Building E1.3, Lecture Hall 003

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Spotlight on Vision \(8 CP\)](#)  
Seminar given by A. Bruhn  
We 16-18, Building E1.1, Room 306
- [Speech and Gaze in Virtual Agents \(8 CP\)](#)  
Seminar given by A. Heloir, M. Staudte, M. Kipp and M. Crocker  
Kick off: Thursday April 14th, 14-16, Room U.15, Computer Linguistics building C 7.1.  
More details can be found on the course webpage.
- [Linking Virtual and Real World through Android Applications \(8 CP\)](#)  
Seminar given by D. Heckmann  
Kickoff: Tuesday April 12th, 16-18, DFKI-Building D 3.2, Room +2.30 "Turing".  
Details to be announced there.
- [Scene Understanding Techniques for Geometric and Visual Data Sets \(8 CP\)](#)  
Seminar given by M. Wand  
First meeting: Wednesday June 15 at 14ct in the MPI building E1 4, Room 021.  
You may pre-register. Details can be found on the course webpage.
- [Seminar on Current methods and Open Questions in Scientific Visualization \(8 CP\)](#)  
Seminar given by J. Krüger  
First meeting: April 13th, 16:00 s.t., DFKI Building D 3.4, Room 2.31 (Turing 2).  
More details to be announced on the course webpage.
- [Seminar on Computer Vision for Computer Graphics \(8 CP\)](#)  
Seminar given by C. Theobalt  
First meeting: April 15th (time and place as usual for this seminar).  
Fr 14-16, Building E 1.4 (Max-Planck-Institute), Room 019

• **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Telecommunications II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu, We 8:30-10, Building E1.3, Lecture Hall 001
- Artificial Intelligence (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by W. Wahlster  
We, Th 16-18, Building E1.3, Lecture Hall 002
- [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fr 8:30-10, Building C7 2, Seminar room 1.12
- Inferences in Artificial Intelligence and Computational Linguistics (4 CP)  
Classroom lectures (2h) given by H. Horacek  
We 16-18, Building E1.3, Seminar room 016
- [Elements of Statistical Learning 1 \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Lengauer  
First lecture: April 13th, 2011 in E2.1, Room 001.  
Regular schedule: We 10-12, Building E2.1 (MPI), Seminar Room 0.07
- Informationsverarbeitung in der Produktionstechnik II (6 CP)  
Classroom lectures (2h) and additional lab ("Praktikum") (2h) given by N. Avgustinov  
(English on request).  
Lectures: We 14-16, Building A4.2, Seminar Room 1.12.1. Lab: By appointment.
- Grundlagen und Anwendungen der zerstörungsfreien Werkstoffprüfung und Qualitätssicherung, Teil I (4 CP)  
Classroom lectures (2h) given by C. Boller  
Time and place: Th 8-10, Building E3.1, IZFP, Seminar room
- Praktikum zu Zerstörungsfreie Prüfverfahren Teil I (4 CP)  
Block course offered by U. Rabe during the lecturing-free period
- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:

- [Fast Fourier Transforms \(6 CP\)](#)  
Course offered by A. Pospelov  
Block course during the lecturing-free period in August. For more details see the webpage
- [Wavelets and Sparsity \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by S. Setzer  
Tu 12-14, Fr 14-16, Building E1.3, Lecture Hall 001
- [Numerical Algorithms for Visual Computing III \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Breuß  
Lecture: Th 12-14, Building E2.4, Lecture Hall IV, Tutorial/Lecture: Mo 14-16, Building E1.3, Seminar Room 015
- [Graph Theory \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by B. Doerr, D. Hermelin and R. Spöhel  
Tu, Th 10-12, Building E1.4, Room 0.24 (main lecture hall)
- [Praktische Mathematik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
First lecture: April 14th in the main lecture hall in Building C6.3.  
Regular schedule: Tu 8-10, Th 14-16, Building E1.3, Lecture Hall II
- Elementarkurs Partielle Differentialgleichungen (4 CP)  
Classroom lectures (2h) given by D. Apushkinskaya  
Mo 12-14, Building E2.4, Lecture Hall IV
- [Numerik partieller Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tu 14-16, Th 8-10, Building E1.3, Lecture Hall 003
- [Differentialgeometrie \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mo 12-14, Fr 10-12, Building E1.3, Lecture Hall 003
- [Partielle Differentialgleichungen II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mo, We 10-12, Building E2.4, Seminar Room SR 7
- [Funktionentheorie \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Groves  
Mo 14-16, Fr 8-10, Building E1.3, Lecture Hall 003

- Classes in Computer Science:

- [Graph Theory \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by B. Doerr, D. Hermelin and R. Spöhel  
Tu, Th 10-12, Building E1.4, Room 0.24 (main lecture hall)
- [The Probabilistic Method and Randomised Algorithms \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Gao, X. P. Gimenez and T. Sauerwald  
Tu 12-14, Building E1.7, Room 3.23, Th 12-14, Building E1.7, Room 0.01
- [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by K. Elbassioni and A. van Zuylen  
Tu, Th 14-16, Building E1.3, Lecture Hall 001
- [Programmierung II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Hack

Tu 14-16, Fr 8-10, Building E2.2, Lecture Hall 0.01 (Audimo)

- [Computer Architecture I \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Mo, We, 14-16, Building E1.3, Lecture Hall 001

- [Hardwaredesignpraktikum \(6 CP\)](#)

Block course during the early lecturing-free period in March given by W. Paul  
for more details see the webpage

- [Softwarepraktikum \(9 CP\)](#)

Course offered by A. Zeller

Block course during the lecturing-free period, for more details see the webpage

- [Programmieren für Ingenieure \(8 CP\)](#)

(Programming for Engineers, slides are in English)

Classroom lectures (2h) with tutorials (3h) given by P. Slusallek and M. Backes  
Tu 14-18, Building E1.3, Lecture Hall 002

Students should only attend this course if they do **not** have a Bachelor degree in  
Computer Science.

- Classes in Mechatronics:

- [Digital Signal Processing \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Mo 10-12, Building A5.1, Lecture Hall -1.03

- Classes in Physics:

- Elementare Einführung in die Physik II (4 CP)

Classroom lectures (2h) given by R. Birringer  
Mo 10-12, Building C6.4, Großer Hörsaal

- Physik für Ingenieure II (5 CP)

Classroom lectures (2h) with tutorials (1h) given by R. Seemann  
Fr 12-14, Building C6.4, Großer Hörsaal

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language  
classes for at most 6 CP.)

- Work as a tutor (4 CP)

- [German as a Foreign Language for CS Students \(6 CP\)](#)

Lectures (4h) offered by the Max Planck Institute for Computer Science

- [English as a Foreign Language for CS Students \(6 CP\)](#)

Lectures (4h) offered by the Max Planck Institute for Computer Science

- The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).

- Classes on other foreign languages are offered by the [Language Center](#).

- Any of the classes of the first three categories.

- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings. If you spot some errors or have  
proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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## Breaking News

- **Information Meeting on Visual Computing**

Our Visual Computing Meeting will take place on Monday, October 17, at 2:15 pm in E1.1, Room 306.

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2011 / 2012

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Image Acquisition Methods \(5 CP\)](#)

Classroom lectures (2h) with tutorials (1h) given by S. Setzer  
We 10-12, Building E1.3, Lecture Hall 001

- [Statistical Geometry Processing \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by M. Wand  
Tu 16-18, Building E1.4, Seminar room 0.24

- [Ultraschall Imaging \(4 CP\)](#)

Classroom lectures (2h) given (in German) by B. Kleffner  
Mo 16:30-18, Building A5.1, Room -1.22

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tu, Th 10-12, Building E1.3, Lecture Hall 002

- [Correspondence Problems in Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by A. Bruhn  
Fr, 10-12, Building E1.3, Lecture Hall 001

- [Image Compression \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by C. Schmaltz  
Th 8-10, Building E1.3, Lecture Hall 003

- [Capturing Reality - 3D Reconstruction of Real World Scenes \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by C. Theobalt  
Th 14-16, Building E 1.4, Seminar Room 0.24

- [Probabilistic Graphical Models and their Applications \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele  
Tu 14-16, Building E1.4, Seminar room 0.24

- [Pattern and Speech Recognition \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Tu 14-16, Building C7.2, Seminar Room

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Slusallek  
Mo, We 14-16, Building E1.3, Lecture Hall 001
- [Scientific Visualization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Krüger and T. Weinkauff  
We, Fr 14-16, Building E 1.3, Lecture Hall 003
- **Seminars:**  
(You need at least 8 graded CP from this category.)
  - [Classics in Image Processing \(8 CP\)](#)  
Seminar given by S. Setzer and J. Weickert  
Tu, 16-18, Building E1.1, Room 306
  - [Seminar on Digital Data Communication \(8 CP\)](#)  
Seminar given by T. Herfet  
for more information see the course webpage
  - Research Topics in Computational Photography (8 CP)  
Seminar given by I. Ihrke  
Fr 16-18, Building E1.7, Room 001
  - [Seminar on Geometry of Non-Rigid Shapes \(8 CP\)](#)  
Seminar given by S. Wuhrer  
for more information, see the webpage; first meeting is Friday, October 21, from 10.00-12.00 in Building E1.7, Room 0.01
- **Classes in Image Related Areas in Computer Science and Other Disciplines:**  
(From this category you need 9 graded CP.)
  - [Telecommunications I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu 12-14, We 8-10, Building E1.3, Lecture Hall 003
  - [Machine Learning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Hein  
Tu 8-10, Th 12-14, Building E1.3, Lecture Hall 001
  - [Statistical Learning 2 \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Lengauer  
We 10-12, Building E2.1 (CBI building), Room 007
  - [Information Retrieval and Data Mining \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Miettinen and M. Theobald  
Tu 14-16, Th 16-18, Building E1.3, Lecture Hall 003
  - [Information Extraction \(3 CP\)](#)  
Classroom lectures (2h) given by G. Neumann  
Fr 12-14, Building C7.2, Seminar room 1.12
  - [Text to Speech Synthesis \(3 CP\)](#)  
Classroom lectures (2h) given by B. Möbius  
Tu 16-18, Building E1.3, Lecture Hall 001
  - [Future Media Internet \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu 14-16, We 12-14, Building C6.3, Seminar Room 9.05
  - Informationsverarbeitung in der Produktionstechnik I (3 CP)  
Classroom lectures (2h) given by N. Avgoustinov  
The course takes place in Building E3.1 (IZFP), small seminar room, We 10-12; the time as well as the place of meetings may change by appointment.  
The course is given in English on demand.
  - Zerstörungsfreie Prüfverfahren Teil II  
Classroom lectures (2h) given by C. Boller  
Th 8:30-10, Building E3.1 (IZFP), Seminar Room

- **Praktikum Zerstörungsfreie Prüfverfahren Teil II**  
Block course in the lecture-free period given by U. Rabe  
Building E3.1 (IZFP), Seminar room, starts in February 2012

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Mathematical Foundations of Computer Vision \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Breuß  
Mo 16-18, Building E1.3, Lecture Hall 003
  - [Optimal Control \(3 CP\)](#)  
Classroom lectures (2h) given by A. Lakhal  
Tu 13-15, Building E2.4, Seminar Room 6 (216)
  - [Spectral Graph Theory and Applications \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by H. Sun and T. Sauerwald  
We 14-16, Building E1.4, Seminar Room 0.24
  - [Minimalflächen \(Engl. Minimal Surfaces\) \(5 CP\)](#)  
Block course by appointment given by M. Bildhauer, on demand the course is given in English  
for more information, see the course webpage
  - [Theorie und Numerik Gewöhnlicher Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tu 8-10, Th 14-16, Building E1.3, Lecture Hall 002
  - [Variationsrechnung und nichtlineare Differentialgleichungen \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by M. Fuchs  
Fr 10-12, Building E2.4, Seminar room 7
  - [Partielle Differentialgleichungen I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Herrmann  
Mo, Th 12-14, Building E2.4, Lecture Hall IV
  - [Stochastik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Zähle  
Tu 8-10, Th 14-16, Building E2.4, Seminar room 5
- Classes in Computer Science:
  - [Algorithms and Data Structures \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by R. Seidel  
We 16-18, Building E2.2, Lecture Hall 001 (Audimo), Fr 8-10, Building E1.3, Lecture Hall 003
  - [Optimization II \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by K. Elbassioni and S. Ray  
We 16-18, Building E1.4, Lecture room 023
  - [Spectral Graph Theory and Applications \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by H. Sun and T. Sauerwald  
We 14-16, Building E1.4, Seminar Room 0.24
  - [Computer Architecture 2 \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Tu, Th 14-16, Building E1.3, Lecture Hall 001
  - [Programmierung I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Hermanns  
Tu 14-16, Th 10-12, Building E2.2, Lecture Hall 0.01 (Audimo)
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow

Mo 10-12, Building A5.1, Lecture Hall -1.03

- Classes in Physics:
  - Elementare Einführung in die Physik I (4 CP)  
Classroom lectures (2h) with tutorials (2h) given by C. Wagner  
We 10-12, Building C6.4, Großer Hörsaal (0.12)

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
- The [International Office](#) of Saarland University offers a number of [German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings. If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, April 16, 2:15 pm in E1.1, Room 306

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Summer Semester 2012

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Computational Photography \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by I. Ihrke  
Mo 10-12, Building E 1.7, Room 001

- [Geometric Modeling \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by M. Wand  
Tu 14-16, Building E1.4, Seminar Room 0.21, Thu 16-18h, Building E1 4, Seminar Room 0.24

- Akustische Abbildungsverfahren (4 CP)

Classroom lectures (2h) given by S. Hirsekorn  
First lecture 3rd of May.

Th 14-16, Building E3.1, Seminar room of the IZFP

- Röntgenprüfverfahren (4 CP)

Classroom lectures (2h) given by U. Rabe  
Th 10-12, Building E3.1, Seminar room of the IZFP  
Note: On demand, the lecture can be given in English

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tue, Fri 10-12, Building E1.3, Lecture Hall 001

- [Advanced Image Analysis \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by C. Schmaltz  
Thu, Mon 10-12, Building E2.1, Seminar Room 0.01

- [High-Level Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele and M. Fritz  
Wed 14-16, Building E1.4, Seminar Room 0.24

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek and K. Myszkowski  
Mon, Wed 10-12, Building E1.3, Lecture Hall 001

- [Interactive Image Synthesis \(5 CP\)](#)

Classroom lectures (3h) given by J. Krüger

Tu 13-14, Building E1.7 (MMCI), Room 323, Thu 12-14, Building E1.7 (MMCI), Room 001

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Hot Topics in Image Analysis \(8 CP\)](#)  
Seminar given by S. Setzer and O. Demetz  
We 16-18, Building E1.1, Room 306
- [Current methods and Open Questions in Scientific Visualization \(8 CP\)](#)  
Seminar given by J. Krüger  
First meeting: April 13th, 16:00 s.t., DFKI Building D 3.4, Room 2.31 (Turing 2).  
More details to be announced on the course webpage.
- [Recent Topics in Computergraphics and Visualization \(8 CP\)](#)  
Seminar given by J. Krüger  
More details to be announced on the course webpage.
- [Visual Computing Techniques for Efficient Content Production \(8 CP\)](#)  
Seminar given by T. Thormählen and T. Ritschel  
First meeting: April 23rd in Building E1.4 (MPI), Room 019.  
Mo 16-18, Building E1.4 (MPI), Room 024
- [Statistical Shape Analysis - or - How to Build a Digital Clone Using Simple Modalities \(8 CP\)](#)  
Seminar given by S. Wuhler  
First meeting: April 18th, 14-16, Building E1.7, Room 0.01.  
More details to be announced on the course webpage.
- [Graphics, Vision and Video - Interdisciplinary Topics in Visual Computing \(8 CP\)](#)  
Seminar given by C. Theobalt and L. Valgaerts  
Thu 14-16, Building E1.4, Room 019  
First meeting: April 17th  
More details to be announced on the course webpage.

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Telecommunications II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tu 12-14, We 8-10, Building C6.3, Seminar Room 9.05
- [Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Wahlster and J. Hoffmann  
Tu 12-14, We 16-18, Building E1.3, Lecture Hall 002
- [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fr 8:30-10, Building C7.2, Seminar room 1.12
- Search in Natural Language Processing (NLP) (4 CP)  
Classroom lectures (2h) given by H. Horacek  
We 16-18, Building E1.7, Room 001
- Elements of Statistical Learning 1 (5 CP)  
Classroom lectures (2h) with tutorials (1h) given by T. Lengauer  
We 10-12, Building E2.1 (MPI), Seminar Room 0.07
- Informationsverarbeitung in der Produktionstechnik II (4 CP)  
Lab course (2h) ("Praktikum") given by N. Avgoustinov (English on request).  
We 10-12, Building E3.1, Small Seminar Room.
- Grundlagen und Anwendungen der zerstörungsfreien Werkstoffprüfung und Qualitätssicherung, Teil I (4 CP)  
Classroom lectures (2h) given by C. Boller  
Time and place: Th 8:30-10, Building E3.1, IZFP, Seminar room  
Students interested in an additional lab course shall ask for it in the first lecture at April 19th.



- Neural and Cognitive Systems (5 CP)  
Block course offered by D. J. Strauss  
June 25th-July 15th at the Neurocenter (Building 90.5) of the Saarland University Hospital in Homburg.  
For question please contact [Corinna Bernarding](#)
- Auditory Processing and Perception (4 CP)  
Block course offered by F. I. Corona-Strauss  
June 4th-June 17th at the Neurocenter (Building 90.5) of the Saarland University Hospital in Homburg.  
For question please contact [Corinna Bernarding](#)
- Consider also specialised classes in computational linguistics.
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:
    - [Wavelets and Sparsity \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by S. Setzer and L. Hoeltgen  
Tue 12-14, Thu 14-16, Building E1.3, Lecture Hall 001
    - Convex Optimization (6 CP)  
Classroom lectures (2h) with tutorials (2h) given by M. Hein  
Tue, 14-16, Building E1.3, Lecture Hall 001
    - [Praktische Mathematik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tu 8-10, Th 14-16, Building E2.5, Lecture Hall II
    - Darstellungsmethoden für Lösungen linearer partieller Differentialgleichungen (5 CP)  
Classroom lectures (2h) with tutorials (1h) given by D. Apushkinskaya  
Th 10-12, Building E2.4, Seminar Room 5
    - [Modellieren mit partiellen Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tu 14-16, Th 8-10, Building E2.5, Lecture Hall II
    - [Optimierung \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tu 8-10, Th 14-16, Building E2.4, Lecture Hall IV
    - [Dynamische Systeme \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Herrmann  
Mo 8-10, Tu 12-14, Building E2.4, Seminar Room 5
    - Lokale und globale Kurventheorie (6 CP)  
Classroom lectures (2h) with tutorials (2h) given by M. Fuchs  
Fr 10-12, Building E2.4, Lecture Hall IV
    - [Analysis auf Mannigfaltigkeiten \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by R. Grzibovskis  
Mo, We 10-12, Fr 14-16, Building E2.4, Seminar Room 6 (216)
    - [Wahrscheinlichkeitstheorie und Statistik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by C. Bender  
We 8-10, Fr 8-10, Building E2.5, Lecture Hall III
    - [Einführung in Stochastische Prozesse \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by C. Bender  
Tu 10-12, Building E2.4, Seminar Room 5 (215)
  - Classes in Computer Science:
    - [Algorithm Engineering \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by K. Mehlhorn and P.

Gawrychowski

Mo 16-18, Th 10-12, Building E1.3, Lecture Hall 003

- [Software Engineering \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by A. Zeller

Tue, Thu 8:30-10, Building E1.3, Lecture Hall 002

- [Optimization \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by R. Spöhel and R. van Stee

Tu 10-12, Th 12-14, Building E1.4, Seminar Room 0.24

- [Embedded Systems \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by B. Finkbeiner

Tu 14-16, Th 16-18, Building E1.3, Lecture Hall 003

- [Programmierung II \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by S. Hack

Tu 14-16, Fr 8-10, Building E2.2, Lecture Hall 0.01 (Günter-Hotz-Hörsaal)

- [Limits of Computational Learning \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by T. Kötzing

We 10-12, Building E1.4, Seminar Room 0.24

- [Advanced Graph Algorithms \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by R. Duan, J. Schmidt and M. Wahlström

Mo, Th 10-12, Building E1.4, Room 0.23

- [Systemarchitektur \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by W. Paul

Mo, We 8-10, Building E2.2, Lecture Hall 0.01 (Günter-Hotz-Hörsaal)

- Programmieren für Ingenieure

(5 CP when following up to the mid term exam, 8 CP if attending successfully the final exam)

Classroom lectures (2h) with tutorials (2-3h) given by J. Dittrich and J. Reineke

Tu 14-16, Building E1.3, Lecture Hall 002

Students should only attend this course if they do **not** have a Bachelor degree in Computer Science.

- Classes in Mechatronics:

- [Digital Signal Processing \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow

Mo 10-12, Building A5.1, Lecture Hall -1.03

- Classes in Physics:

- Elementare Einführung in die Physik II (4 CP)

Classroom lectures (2h) given by R. Birringer

Mo 10-12, Building C6.3, Großer Hörsaal

- Physik für Ingenieure II (5 CP)

Classroom lectures (2h) with tutorials (1h) given by R. Seemann

Fr 12-14, Building C6.4, Großer Hörsaal

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)

- [German as a Foreign Language for CS Students \(6 CP\)](#)

Lectures (4h) offered by the Max Planck Institute for Computer Science

- [English as a Foreign Language for CS Students \(6 CP\)](#)

Lectures (4h) offered by the Max Planck Institute for Computer Science

- The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).

- Classes on other foreign languages are offered by the [Language Center](#).

- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings. If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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## Breaking News

- **Information Meeting on Visual Computing**

Our Visual Computing Meeting will take place on Monday, October 15, at 2:15 pm in E1.7, Room 0.01.

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2012 / 2013

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Dynamic Geometry Processing \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by M. Wand and S. Wuhrer  
Block course in February/March 2013

- [Bildgebende Verfahren - Ultraschall \(3 CP\)](#)

Classroom lectures (2h) given by B. Kleffner  
Mon 16:30-18, Building A5.1, Room 1.22  
First lecture is on October 22.

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tue, Thu 10-12, Building E1.3, Lecture Hall 002

- [Correspondence Problems in Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by M. Mainberger and J. Weickert  
Thu 14-16, Building E1.3, Seminar room 0.16

- [Image Compression \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by C. Schmaltz  
Fri 10-12, Building E1.3, Lecture Hall 001

- [Probabilistic Graphical Models and their Applications \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele and M. Fritz  
Tue 14-16, Building E1.4, Seminar room 0.24

- [Speech Technology - Pattern and Speech Recognition \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Tue 14-16, Fri 14-16, Building C7.2, Seminar room 1.12

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek  
Mon, Wed 14-16, Building E1.3, Lecture Hall 001

- [Visualization and Data Analysis \(6 CP\)](#)

Classroom lectures (4h) given by J. Krüger and T. Weinkauff  
Mon 10-12, Wed 12-14, Building E 1.7, Lecture room 001

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Milestones and Advances in Image Analysis \(8 CP\)](#)  
Seminar given by J Weickert and O. Demetz  
Tue, 16-18, Building E1.7, Seminar room 001
- [Dynamic Streaming \(8 CP\)](#)  
Seminar given by T. Herfet  
for more information see the course webpage
- [Parallel Visual Computing \(8 CP\)](#)  
Seminar given by I. Ihrke, T. Ritschel and M. Fritz  
for more information, see the webpage; first meeting is Thu, October 18, from 14.00-16.00 in E1.7, Room 0.01
- [Applied Perception \(8 CP\)](#)  
Seminar given by T. Ritschel, E. Reinhard and K. Myszkowski  
for more information, see the webpage; first meeting is Mon, October 22, from 16.00-18.00 in E1.4, Room 0.19
- [Multimodal Dialog Systems \(8 CP\)](#)  
Seminar given by D. Klakow  
for more information, see the webpage  
Mon, 16-18, Building C7.2, Conference room 2.11
- [Recent Topics in Computergraphics and Visualization \(8 CP\)](#)  
Seminar given by J. Krüger  
for more information, see the webpage; first meeting is Thu, October 25, from 10.00-12.00 in DFKI Building D3.4, Room 2.30 (Turing 1)
- [Seminar Tomographie \(6 CP\)](#)  
Seminar given by A. Louis  
for more information, see the webpage  
Tue 16-18, Building E2.4, Seminar room 6

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Telecommunications I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building E1.3, Lecture Hall 001
- Machine Learning (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by M. Hein  
Mon 10-12, Wed 10-12, Building E1.3, Lecture Hall 001
- [The Elements of Statistical Learning II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Lengauer  
Wed 10-12, Building E2.1 (CBI building), Room 007
- [Text to Speech Synthesis \(3 CP\)](#)  
Classroom lectures (2h) given by B. Möbius  
Tue 16-18, Building C7.2, Seminar room
- [Future Media Internet \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 14-16, Wed 12-14, Building C6.3, Seminar Room 9.05
- [Parallel Programming with CUDA \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by P. Slusallek, J. Kalojanov and P. Danilewski  
Mon 12-14, Building E1.3, Lecture room 003
- [Discrete Topics in Data Mining \(3 CP\)](#)  
Classroom lectures (2h)) given by P. Miettinen  
Tue 12-14, Building E2.1 (bioinformatics), Lecture room 007

- Grundlagen und Anwendungen der zerstörungsfreien Prüfverfahren (3 CP)  
Classroom lectures (2h) given by C. Boller  
Mon 13-15, Building E3.1 (IZFP), Seminar room
- Zerstörungsfreie Prüfverfahren II (3 CP)  
Classroom lectures (2h) given by C. Boller  
Thu 8:30-10, Building E3.1 (IZFP), Seminar Room
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:
    - Theorie und Numerik von gewöhnlichen Differentialgleichungen (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by T. Schuster  
Tue 8-10, Thu 14-16, Building E2.5, Lecture hall I
    - [Partielle Differentialgleichungen I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Hermann  
Mon, Thu 12-14, Building E2.4, Lecture hall IV
    - PDE and Boundary-Value Problems (6 CP)  
Classroom lectures (3h) with tutorials (1h) given by D. Apushkinskaya  
Wed 10-12, Fri 8-10, Building E2.4, Lecture hall IV
    - [Minimal Surfaces and the Calculus of Variations \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by M. Bildhauer  
Tue 12-14, Building E2.4, Seminar room 5
    - [Lokale und globale Flächentheorie \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by M. Fuchs  
Fri 10-12, Building E2.4, Lecture hall IV
    - [Stochastische Numerik \(6 CP\)](#)  
Classroom lectures (4h) given by S. Rjasanow  
Tue, Thu 14-16, Building E2.4, Seminar room 5
    - Stochastische Prozesse (5 CP)  
Classroom lectures (2h) with tutorials (1h) given by H. Zaehle  
Mon, 10-12, Building E2.4, Seminar room 5
  - Classes in Computer Science:
    - [Algorithms and Data Structures \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by R. Seidel  
Wed 16-18, Building E1.3, Lecture Hall 002, Fri 8-10, Building E1.3, Lecture Hall 002
    - [Computer Architecture I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Tue 16-18, Thu 14-16, Building E1.3, Lecture Hall 003
    - [Programmierung I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by G. Smolka  
Tue 14-16, Thu 10-12, Building E2.2, Lecture Hall 0.01
  - Classes in Mechatronics:
    - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mo 10-12, Building A5.1, Lecture hall I (1.03)
  - Classes in Physics:
    - Elementare Einführung in die Physik I (4 CP)  
Classroom lectures (2h) with tutorials (2h) given by R. Birringer  
We 10-12, Building C6.4, Großer Hörsaal (0.12)

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language



classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
- The [International Office](#) of Saarland University offers a number of [German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings. If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, April 15, 2013 at 2:15 pm in E1.7, Room 0.01

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Summer Semester 2013

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Image Acquisition Methods \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter and J. Weickert

Lectures Fri 14-16, Building E1.3, Room 001

Tutorials Tue 16-18, Building E1.3, Seminar Room 016

- [Geometric Modeling \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by K. Hildebrandt, M. Wand and T. Weinkauff

Tue 14-16, Thu 16-18, Building E1.3, Lecture Hall 1

- [Akustische Abbildungsverfahren \(4 CP\)](#)

Classroom lectures (2h) given by S. Hirsekorn

Thu 14-16, Building E3.1, Seminar room of the IZFP

First lecture takes place on April 25, 2013.

- [Röntgenprüfverfahren \(4 CP\)](#)

Classroom lectures (2h) given by U. Rabe

Thu 10-12, Building E3.1, Seminar room of the IZFP

Note: On demand, the lecture can be given in English

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert

Tue, Fri 10-12, Building E1.3, Lecture Hall 003

- [Advanced Image Analysis \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by C. Schmaltz

Mon 14-16, Thu 10-12, Building E1.3, Lecture Hall 0.03

- [High-Level Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele and M. Fritz

Wed 14-16, Building E1.4, Seminar Room 0.24

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek

Mon, Wed 10-12, Building E1.3, Lecture Hall 001

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Optimisation for Visual Computing \(8 CP\)](#)  
Seminar given by O. Demetz and S. Setzer  
We 16-18, Building E1.7, Room 008
- [Seminar on Digital Data Communications \(8 CP\)](#)  
Seminar given by T. Herfet  
For more information and to register visit the seminar webpage.
- [Geometry of Non-rigid Shapes \(8 CP\)](#)  
Seminar given by S. Wuhler  
Preparatory meetings: April 22 and April 29, 10-12, Building E1.7, Room 0.08.  
For more information and to register visit the seminar webpage.
- [Computer Vision for Computer Graphics \(8 CP\)](#)  
Seminar given by C. Theobalt  
Tue 16-18, Building E1.4, Room 019
- [3D Interfaces and 2D Interfaces for 3D Modeling and Navigation \(8 CP\)](#)  
Seminar given by A. Heloir  
Wed 14-16, Building E1.1, Seminar Room 121  
Kick-off meeting and talk assignment: Wed, April 10
- [Grundlagen und Anwendungen der zerstörungsfreien Prüfverfahren \(8 CP\)](#)  
Seminar given by C. Boller and U. Rabe  
Mon 13:30-15:00, Building E3.1, Seminar Room

• **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Telecommunications II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building C6.3, Seminar Room 9.05
- [Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann  
Mon 10-12, Tue 8-10, Building E1.3, Lecture Hall 002
- [Elements of Statistical Learning 1 \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Lengauer  
Wed 10-12, Building E2.1 (MPI), Seminar Room 0.07
- [Data Mining and Matrices \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by R. Gemulla and P. Miettinen  
Thu 10-12, Building E1.4, Room 021
- [Learning, Game Theory and Optimization \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Hoefer  
Wed 10-12, Building E1.4, Seminar Room 0.24
- [User Interface Optimization and Adaptation \(5 CP\)](#)  
Classroom lectures (3h) given by A. Oulasvirta  
Tue 9-12, Building E1.7, Room 008
- [Information Extraction and the Semantic Web \(3 CP\)](#)  
Classroom lectures (2h) given by F. Suchanek  
Tue 14-16, Building E1.3, Seminar Room 0.15
- [Natural Language Generation \(3 CP\)](#)  
Classroom lectures (2h) given by H. Horacek  
Wed 16-18, Building E1.7, Room 0.01
- [Neural and Cognitive Systems \(6 CP\)](#)  
Block course given by D. Strauss  
From June 3 to June 21 at Campus Homburg, Neurozentrum, Building 90
- [Auditory Processing and Perception \(4 CP\)](#)  
Block course given by D. Strauss  
From June 24 to July 19 at Campus Homburg, Neurozentrum, Building 90

- [Zerstörungsfreie Prüfverfahren I \(4 CP\)](#)  
Classroom lectures (2h) given by C. Boller  
Thu 8:30-10, Building E3.1, IZFP, Seminar room  
First lecture on April 25, 2013
- Consider also specialised classes in computational linguistics.
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:
    - [Calculus of Variations \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by D. Apushkinskaya  
Mon, Wed 10-12, Building E2.4, Seminar Room 6
    - [Fast Matrix Multiplication \(3 CP\)](#)  
Classroom lectures (2h) given by M. Bläser  
Thu 10-12, Building E1.3, Seminar Room 0.16
    - [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Karrenbauer and M. Mnich  
Mon 14-16, Wed 10-12, Building E1.3, Lecture Hall 003
    - [Graph Theory \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Jez and J. Schmidt  
Tue, Thu 14-16, Building E1.4, Room 0.24
    - [Differentialgeometrie I \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Apushkinskaya  
Wed 8-10, Building E2.4, Seminar Room 5
    - [Optimierung \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Schuster  
Tue, 14-16, Thu 8-10, Building E2.5, Lecture Hall 002
    - [Numerik partieller Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 8-10, Thu 14-16, Building E2.4, Seminar Room 10
    - [Partielle Differentialgleichungen II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Herrmann  
Mo, We 12-14, Building E2.4, Lecture Hall IV
    - [Theorie und Numerik von Integralgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tue 14-16, Thu 8-10, Building E2.4, Lecture Hall IV
    - [Stochastik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Zähle  
Tue 14-16, Thu 12-14, Building E2.4, Seminar Room 5
    - [Computeralgebra \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by F.-O. Schreyer  
Wed 14-16, Fri 10-12, Building E1.3, Lecture Hall 001
  - Classes in Computer Science:
    - [Design and Analysis of Real-Time Systems \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by J. Reineke  
Thu 14-16, Building E1.3, Lecture Hall 003
    - [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Karrenbauer and M. Mnich  
Mon 14-16, Wed 10-12, Building E1.3, Lecture Hall 003
    - [Graph Theory \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Jez and J. Schmidt  
Tue, Thu 14-16, Building E1.4, Room 0.24

- [Softwarepraktikum \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Zeller  
Tue, Thu 8:30-10, Building E1.3, Lecture Hall 002
- [Programmierung II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Hack  
Tu 14-16, Fr 8-10, Building E2.2, Lecture Hall 0.01 (Günter-Hotz-Hörsaal)
- [Systemarchitektur \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Mo, We 8-10, Building E2.2, Lecture Hall 0.01 (Günter-Hotz-Hörsaal)
- [Computeralgebra \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by F.-O. Schreyer  
Wed 14-16, Fri 10-12, Building E1.3, Lecture Hall 001
- [System Architecture \(9 CP\)](#)  
Block course given by W. Paul  
Mon-Thu 10-12, 05.08. - 02.09. in Building E1.3 Lecture Hall 003,  
03.09. in Building E2.4 Lecture Hall IV, 04.09. - 12.09. in Building E1.3 Lecture Hall 003  
The lecture will be given in English.
- Classes in Mechatronics:
  - [Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Mo 10-12, Building A5.1, Lecture Hall 1.03
- Classes in Physics:
  - [Elementare Einführung in die Physik II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by J. Eschner  
Wed 10-12, Building C6.4, Main Lecture Hall 0.12
  - Physik für Ingenieure II (5 CP)  
Classroom lectures (2h) with tutorials (1h) given by R. Seemann  
Fr 12-14, Building C6.4, Main Lecture Hall 0.12
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [Scientific Writing \(7 CP\)](#)  
Block seminar given by S. Wuhler and T. Weinkauff  
For more information check the seminar webpage.
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings. If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, October 14, 2013 at 2:15 pm in E1.7, Room 0.01

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2013/2014

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Computational Geometry](#) (9 CP)

Classroom lectures (4h) with tutorials (2h) given by E. Berberich and M. Kerber  
Tue 8-10, Thu 8-10, Building E1.3, Seminar Room 1

- [Bildgebende Verfahren - Ultraschall \(Ultrasound Imaging\)](#) (4 CP)

Classroom lectures (2h) given by B. Kleffner  
Mon 18-20, Building A5.1, Room 1.22

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision](#) (9 CP)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tue 10-12, Thu 10-12, Building E1.3, Lecture Hall 2

- [Speech Technology - Pattern and Speech Recognition](#) (6 CP)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Tue 14-16, Building C7.2, Seminar Room 1.12

- [Probabilistic Graphical Models and their Applications](#) (6 CP)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele and B. Andres  
Tue 12-14, Building E1.3, Room 023

- [Image Compression](#) (6 CP)

Classroom lectures (2h) with tutorials (2h) given by C. Schmaltz  
Mon 10-12, Building E1.7, Room 001

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek  
Tue 14-16, Fri 8-10, Building E1.3, Lecture Hall 1

- [Perception for Computer Graphics](#) (3 CP)

Classroom lectures (2h) given by P. Vangorp, T. Ritschel and K. Myszkowski



Mon 10-12, Building E1.4, Seminar Room 0.24

- [Visualization and Data Analysis](#) (6 CP)  
Classroom lectures (2h) with tutorials (2h) given by T. Weinkauff and J. Martinez Esturo  
Mon 14-16, Building E1.4, Room 0.22

◦ **Seminars:**

(You need at least 8 graded CP from this category.)

- [Advances in Image Processing and Computer Vision](#) (8 CP)  
Seminar given by O. Demetz and J. Weickert  
Tue 16-18
- [OFDM for Wireless Communications](#) (8 CP)  
Blockseminar given by T. Herfet  
Thu 8-10, Building C6.3, Seminar Room 9.05
- [Grundlagen und Anwendung der zerstörungsfreien Prüfverfahren](#) (CP unclear)  
Seminar given by C. Boller, U. Rabe and others  
Mon 13-15, Building E3.1, Seminar Room
- [Mobile Eye Tracking meets Egocentric Computer Vision](#) (8 CP)  
Seminar given by A. Bulling and M. Fritz  
Tue 14-16, Building E1.4, Seminar Room 0.24
- [Applied Creative Computing](#) (8 CP)  
Seminar given by T. Ritschel, B. Reinert, C. Nguyen  
Mon 12-14, Building E1.4, Seminar Room 0.24

• **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)


- [Telecommunications I](#) (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building E1.3, Lecture Hall 1
- [Future Media Internet](#) (8 CP)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 14-16, Wed 12-14, Building C6.3, Seminar Room 9.05
- [Machine Learning](#) (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by M. Hein  
Wed 14-16, Fri 10-12, Building E1.3, Lecture Hall 1
- [Information Retrieval and Data Mining](#)  
Classroom lectures (4h) with tutorials (2h) given by K. Berberich and P. Miettinen  
Tue 16-18, Thu 14-16, Building E1.3, Lecture Hall 2
- [Automatic Planning](#) (9 CP)  
Classroom lectures (4h) given by J. Hoffmann  
Mon 10-12, Tue 10-12, Building E1.3, Lecture Hall 3
- [Non-Destructive Testing of Materials II](#) (3 CP)  
Classroom lectures (2h) given by C. Boller

Thu 8-10, Building E3.1, Seminar Room

- [Informationsverarbeitung in der Produktion I](#) (3 CP)  
Classroom lectures (2h) given by N. Avgoustinov  
Mon 8-10, Building A4.2, Seminarroom 1.12.1
- Consider also specialised classes in [computational linguistics](#).
- **Supplementary Classes (to fill your personal gaps of knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:
    - [Convex Analysis for Image Processing](#) (6 CP)  
Classroom lectures (2h) with tutorials (2h) given by L. Hoeltgen and J. Weickert  
Mon 14-16, Thu 12-14, Building E1.3, Lecture Hall 3
    - [PDE and Boundary-Value Problems](#) (6 CP)  
Classroom lectures (3h) with tutorials (1h) given by D. Apushkinskaya  
Wed 10-12, Fri 12-14, Building E1.3, Lecture Hall 001
    - [Topics in Approximation Algorithms](#) (5 CP)  
Classroom lectures (2h) with tutorials (1h) given by P. Chalermsook and S. Bhattacharya  
Mon 16-18, Building E1.4, Seminar Room 0.24
    - [Numerical Algebraic Computation](#) (6 CP)  
Classroom lectures (2h) with tutorials (2h) given by M. Sagraloff  
Wed 14-16, Building E1.4 Seminar Room 0.24
    - [Mathematische Methoden der Bildrekonstruktion](#) (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tue 14-16, Thu 14-16, Building E2.5, Lecture Hall 2
    - [Theorie und Numerik von gewöhnlichen Differentialgleichungen](#) (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 8-10, Thu 14-16, Building E2.5, Lecture Hall 1
    - [Partielle Differentialgleichungen I](#) (9 CP)  
Classroom lectures (4h) given by M. Fuchs  
Mon 12-14, Thu 12-14, Building E2.4, Lecture Hall 4
    - [Differentialgeometrie II \(Flächentheorie\)](#) (5 CP)  
Classroom lectures (2h) and tutorials (1h) given by D. Apushkinskaya  
Wed 8-10, Building E2.5, Seminar Room 10
    - [Konvexe Geometrie](#) (5CP)  
Classroom lectures (2h) with tutorials (1h) given by H. Markwig  
Fri 8-10, Building E2.4, Lecture Hall 4
    - [Sobolevräume](#) (5 CP)  
Classroom lectures (2h) with tutorials (1h) given by M. Fuchs  
Fri 10-12, Building E2.4, Lecture Hall 4

- Classes in Computer Science:
  - [Software Engineering](#) (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by A. Zeller  
Tue 8-10, Thu 8-10, Building E1.3, Lecture Hall 2
  - [Algorithms and Datastructures](#) (9 CP)  
Block course given by R. Seidel
  - [Topics in Approximation Algorithms](#) (5 CP)  
Classroom lectures (2h) with tutorials (1h) given by P. Chalermsook and S. Bhattacharya  
Mon 16-18, Building E1.4, Seminar Room 0.24
  - [Numerical Algebraic Computation](#) (6 CP)  
Classroom lectures (2h) with tutorials (2h) given by M. Sagraloff  
Wed 14-16, Building E1.4 Seminar Room 0.24
  - [Programmierung 1](#) (9 CP)  
Classroom lectures (4h) with tutorials (2h) given by H. Hermanns  
(not for students with a B.Sc. in Computer Science)  
Tue 14-16, Thu 10-12, Fri 16-18, Building E2.2, Lecture Hall 0.01
  - [Grundzüge von Algorithmen und Datenstrukturen](#) (6 CP)  
Classroom lectures (2h) with tutorials (2h) given by S. Wuhler and R. Seidel  
(not for students with a B.Sc. in Computer Science)  
Thu 12-14, Building E2.2, Lecture Hall 0.01
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung](#) (5 CP)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mon 10-13, Building A5.1, Lecture Hall 1
- Classes in Physics:
  - [Elementare Einführung in die Physik I](#) (4 CP)  
Classroom lectures (2h) with tutorials (2h) given by K. Jacobs  
Wed 10-12, Building C6.4, Lecture Hall (0.12)
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).



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If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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**The information on this page is preliminary and might still change slightly.**

- **Information Meeting on Visual Computing**

Monday, April 14, 2014 at 2:15 pm in E1.7, Room 0.01

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Summer Semester 2014

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Image Acquisition Methods \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter and J. Weickert  
Fri 14-16, Building E1.3, Lecture Hall 3

- [Geometric Modeling \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by K. Hildebrandt and T. Weinkauff  
Mon 12-14, Building E1.4 Room 0.24,  
Wed 10-12, Building E1.4 Room 0.21

- [Röntgenverfahren \(4 CP\)](#)

Classroom lectures (2h) given by U. Rabe  
Thu 10-12, Building E3.1, Seminar room of the IZFP  
Note: On demand, the lecture can be given in English

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Correspondence Problems in Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by O. Demetz and J. Weickert  
Mon 14-16, Building E1.3, Lecture Hall 1

- [High Level Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele and M. Fritz  
Wed 14-16 Building E1.4, Seminar Room 0.24

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek, K. Myszkowski and V. Pegoraro  
Tue 10-12, Thu 8-10, Building E1.3, Lecture Hall 1

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Gradient Domain Methods in Visual Computing \(8 CP\)](#)  
Seminar given by M. Schmidt and J. Weickert  
Tue 16-18, Building E1.7, Room 410
- [Tomography as an inverse Rendering Problem \(8 CP\)](#)  
Seminar given by P. Slusallek, T. Dahmen, B. Turonova
- [Computer Vision for Computer Graphics \(8 CP\)](#)  
Seminar given by C. Theobalt and C. Richardt  
Thu 14-16, Building E1.4, Room 0.19
- [Digital Data Communication \(Multi-View Video Streaming\) \(8 CP\)](#)  
Seminar given by T. Herfet  
Tue 15-17, Building C6.3, Seminarroom 9.05
- [Combinatorial Optimization in Machine Learning and Image Analysis \(8 CP\)](#)  
Seminar given by B. Andreas and A. Karrenbauer  
Wed 14:30-16:00, Building E1.1 R633
- [Interactive Global Illumination \(8 CP\)](#)  
Seminar given by T. Ritschel, O. Elek and O. Nalbach  
Building E1.4

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann  
Mon 10-12, Wed 14-16, Building E2.2 Lecture Hall 0.02
- [Telecommunications II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building C6.3, Seminar Room 9.05
- [Praktikum zu Informationsverarbeitung in der Produktion II \(4 CP\)](#)  
Praktikum offered by N. Avgustinov  
Termin Montags in der Zeit zwischen 8 und 14 Uhr möglich, genauer Termin und Ort nach Vereinbarung. Interessenten melden sich bitte per Mail unter avgoust@cam.uni-saarland.de bis zum 25.04.14.
- Neural and Cognitive Systems (6 CP)  
Block course given by D. Strauss  
From KW28-30, 10-17 at Campus Homburg, Neurozentrum
- [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fri 8-10, Building E1.3, Lecture Hall 1
- [Topics in Algorithmic Data Analysis \(5 CP\)](#)  
Classroom lectures (2h) given by P. Miettinen and J. Vreeken  
Thu 14-16, Building E1.3, Room 014



- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:

- [Wavelets and Sparsity \(6 CP\)](#)

Classroom lectures (3h) with tutorials (1h) given by L. Hoeltgen and J. Weickert  
Mon 16-18, Building E1.3, Lecture Hall 1, Thu 14-16, Building E1.3, Seminar Room 0.16

- [Calculus of Variations \(6 CP\)](#)

Classroom lectures (3h) with tutorials (1h) given by D. Apushkinskaya  
Wed 12-14, Fri 10-12, Building E1.3, Lecture Hall 1

- [Convex Optimization \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by M. Hein  
Tue 10-12, Thu 10-12, Building E2.4, Seminar Room 6

- [Optimization \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Chalermsook and A. Karrenbauer  
Tue 14-16, Thu 14-16, Building E1.3 Lecture Hall 3

- [Operator Semigroups and Evolution Equations \(5 CP\)](#)

Classroom lectures (2h) with tutorials (1h) given by J. Kinderknecht  
Thu 14-16, Building E2.4, Seminarroom 8

- [Advanced Computational Algebraic Geometry \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by F. Schreyer  
Mon 14-16, Building E2.4, Lecture Hall 4

- [Praktische Mathematik \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by T. Schuster  
Tue 8-10, Thu 14-16, Building E2.5, Lecture Hall 2

- [Stochastik I \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by C. Bender  
Tue 14-16, Thu 12-14, Building E2.4, Seminarroom 10

- [Partielle Differentialgleichungen II \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mon 12-14, Thu 12-14, Building E2.4, Lecture Hall 4

- Classes in Computer Science:

- [Parallel Programming with CUDA \(6 CP\)](#)

Classroom lectures (2h) with programming exercises (2h) given by P. Slusallek, J. Kalojanov and P. Danilewski  
Mon 10-12, Building E1.3, Lecture Hall 1

- [Optimization \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Chalermsook and A.

Karrenbauer

Tue 14-16, Thu 14-16, Building E1.3 Lecture Hall 3

- [Embedded Systems \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by B. Finkbeiner and P. Ruzica  
Tue 16-18, Thu 10-12, Building E1.3, Lecture Hall 1

- [Efficient Data Structures \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Gawrychowski, M. Goswami and P. Nicholson

Mon 10-12, Building E1.4, Room 021,

Thu 10-12, Building E1.4, Room 023

- [Programmierung 2 \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by S. Hack

Tue 14-16, Fri 8-16, Building E2.2, Lecture Hall 0.01

- [Systemarchitektur \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Reineke and R. Wilhelm

Mon 8-10, Wed 8-10, Building E2.2 Lecture Hall 0.01

- [Softwarepraktikum \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by A. Zeller

- Classes in Mechatronics:

- [Digitale Signalverarbeitung / Digital Signal Processing \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow

Mon 10-12 Building A5.1 Lecture Hall 1.03

- Classes in Physics:

- [Elementare Einführung in die Physik II \(5 CP\)](#)

Classroom lectures (2h) with tutorials (1h) given by K. Jacobs

Wed 10-12, Building C6.4, Lecture Hall 0.10

- [Physik für Ingenieure II \(5 CP\)](#)

Classroom lectures (2h) with tutorials (1h) given by J. Eschner

Fr. 13:00-14:30, Building C6.4, Lecture Hall 0.10

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)


- Work as a tutor (4 CP)

- The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).

- Classes on other foreign languages are offered by the [Language Center](#).

- Any of the classes of the first three categories.

- Classes in humanities (cognitive science, etc.) after [approval in advance](#).



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If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, October 20, 2014 at 2:15 pm in E1.7, Room 0.01

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2014/2015

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Bildgebende Verfahren - Ultraschall \(Ultrasound Imaging\) \(4 CP\)](#)

Classroom lectures (2h) given by B. Kleffner

Mon 18-20, Building A5.1, Room 1.22

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert

Tue 10-12, Fri 10-12, Building E1.3, Lecture Hall 3

- [Image Compression \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter and J. Weickert

Thu 10-12, Building E1.3, Lecture Hall 3

- [Advanced Image Analysis \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by S. Hoffmann and J. Weickert

Tue 8:30-10, Building E1.3, Lecture Hall 3

- [Probabilistic Graphical Models and their Applications \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele

Wed 14-16, Building E1.4, Seminar Room 0.24

- [Speech Technology - Pattern and Speech Recognition \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow

Tue 14-16, Building C7.2, Seminar Room 1.12

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek

Wed 16-18, Fri 8-10, Building E1.3, Lecture Hall 2

- [Perception in Computer Graphics \(3 CP\)](#)

Classroom lectures (2h) given by T. Ritschel, K. Myszkowski and P. Didyk

Mon 10-12, Building E1.4, Seminar Room 019

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Surface Processing: Theory and Applications \(8 CP\)](#)  
Seminar given by M. Schmidt and J. Weickert  
Tue 16-18, Building E1.7, Room 410
- [Tomography as an Inverse Rendering Problem \(8 CP\)](#)  
Seminar given by P. Slusallek, T. Dahmen, B. Turonova and N. Marniok
- [Egocentric Computer Vision \(8 CP\)](#)  
Seminar given by A. Bulling and Y. Sugano  
Mon 10-12, Building E1.4, Room 633

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Machine Learning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fritz and B. Andres  
Mon 16-18, Fri 14-16, Building E1.3, Lecture Hall 2
- [Future Media Internet \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 14-16, Wed 12-14, Building C6.3, Room 9.08
- [Automatic Planning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann  
Mon 10-12, Tue 14-16, Building E1.3, Lecture Hall 3
- [Telecommunications I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building E1.3, Lecture Hall 1
- [IT Forensics \(3 CP\)](#)  
Classroom lectures (2h) given by C. Sorge  
Mon 14-16, Building E1.3, Seminar Room 0.16
- [Advanced Topics in Information Retrieval \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by K. Berberich  
Mon 10-12 Building E1.4, Seminar Room 0.24
- [Statistical Learning \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Lengauer  
Wed 10-12 Building E2.1, Seminar Room 0.07
- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

## ◦ Classes in Mathematics:

- [Convex Analysis for Image Processing \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by L. Hoeltgen and J. Weickert  
Mon 14-16, Thu 12-14, Building E1.3, Lecture Hall 3
- [PDE and Boundary-Value Problems \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by D. Apushkinskaya  
Mon 12-14, Thu 8-10, Building E1.3, Lecture Hall 3
- [Computer Algebra \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Sagraloff  
Mon 14-16, Wed 10-12, Building E1.3, Lecture Hall 1
- [Integer Programming \(5 CP\)](#)  
Classroom lectures (2h) with tutorials given by A. Karrenbauer  
Tue 14-16, Building E1.4, Room 024
- [Theorie und Numerik von gewöhnlichen Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 8-10, Thu 14-16, Building E2.5, Lecture Hall 1
- [Partielle Differentialgleichungen I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Groves  
Mon 12-14, Fri 10-12, Building E2.4, Lecture Hall 4
- [Numerik partieller Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 14-16, Building E2.4, Lecture Hall 4, Thu 8-10, Building E2.5, Lecture Hall 3
- [Differentialgeometrie \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mon 12-14, Building E2.4, Seminar Room 10, Wed 10-12, Building E2.4, Lecture Hall 4
- [Einführung in die Variationsrechnung \(3 CP\)](#)  
Classroom lectures (2h) given by M. Bildhauer
- [Theorie und Numerik von Integraltransformationen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Louis  
Tue 12-14, Building E2.5, Lecture Hall 2, Thu 12-14, Building E2.4, Lecture Hall 4

## ◦ Classes in Computer Science:

- [Algorithms and Data Structures \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Hoefer  
Mon 10-12, Wed 14-16, Building E1.3, Lecture Hall 1
- [Computer Architecture 1 \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Tue 8-10, Thu 12-14 Building E1.3, Lecture Hall 1
- [Integer Programming \(5 CP\)](#)  
Classroom lectures (2h) with tutorials given by A. Karrenbauer  
Tue 14-16, Building E1.4, Room 024



- [Grundzüge von Algorithmen und Datenstrukturen \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by R. Seidel  
(not for students with a B.Sc. in Computer Science)  
Thu 12-14, Building E2.2, Lecture Hall 0.01
- [Programmierung 1 \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by B. Finkbeiner  
(not for students with a B.Sc. in Computer Science)  
Tue 14-16, Thu 10-12, Building E2.2, Lecture Hall 0.01
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mon 10-13, Building A5.1, Lecture Hall 1 (1.03)
- Classes in Physics:
  - [Elementare Einführung in die Physik I \(4 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by F. Müller  
Wed 10-12, Building C6.4, Lecture Hall (0.10)
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings.

If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, April 20, 2015 at 2:15 pm in E1.7, Room 0.01

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Summer Semester 2015

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Image Acquisition Methods \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter and J. Weickert  
Mon 14-16, Building E1.3, Lecture Hall 3

- [Geometric Modeling \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by H.-P. Seidel  
Tue 14-16, Thu 14-16, Building E1.4, Room 0.24

- [Akustische Abbildungsverfahren \(4 CP\)](#)

Classroom lectures (2h) given by U. Rabe  
Thu 10-12, Building E 3.1, Seminar room of the IZFP  
Note: On demand, the lecture can be given in English

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tue 10-12, Building E2.2, G  nter Hotz Lecture Theatre  
Thu 10-12, Building E1.3, Lecture Hall 2

- [Correspondence Problems in Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by S. Hoffmann and J. Weickert  
Mon 16-18, Building E1.3, Lecture Hall 1

- [Differential Geometric Aspects of Image Processing \(5 CP\)](#)

Classroom lectures (2h) with tutorials (1h) given by M. Schmidt and J. Weickert  
Tue 8-10, Building E1.3, Lecture Hall 3

- [High Level Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele  
Mon 14-16, Wed 14-16, Building E1.4, Seminar Room 0.24

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Interactive Computer Graphics using OpenGL \(3 CP\)](#)  
Classroom lectures (2h) given by T. Ritschel  
Mon 12-14 Building E1.4, Room 019
- [Realistic Image Synthesis \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Slusallek  
Mon 10-12, Thu 8-10, Building E1.3, Lecture Hall 1
- **Seminars:**  
(You need at least 8 graded CP from this category.)
  - [Groundbreaking Ideas in Image Analysis \(8 CP\)](#)  
Seminar given by S. Schöffer and J. Weickert  
Tue 16-18, Building E1.7, Room 410
  - [Computational Display and Fabrication \(8 CP\)](#)  
Seminar given by P. Didyk and K. Myszkowski  
Mon 16-18, Building E1.4, Room 0.19
  - [Computer Vision for Computer Graphics \(8 CP\)](#)  
Seminar given by C. Theobalt and C. Richardt  
Thu 14-16, Building E1.4, Room 0.19
  - [Integrating Vision and Language \(8 CP\)](#)  
Block seminar given by D. Klakow  
some time between August and October
  - [Tomography as an Inverse Rendering Problem \(8 CP\)](#)  
Seminar given by P. Slusallek, B. Turonova, T. Dahmen and N. Marniok
- **Classes in Image Related Areas in Computer Science and Other Disciplines:**  
(From this category you need 9 graded CP.)
  - [Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann  
Mon 10-12, Tue 16-18, Building E2.2, G nter Hotz Lecture Theatre
  - [Telecommunications II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building C6.3, Seminar Room 9.05
  - [Data Mining and Matrices \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by P. Miettinen  
Thu 12-14, Building E1.5, Room 029
  - [Neural and Cognitive Systems \(6 CP\)](#)  
Block course given by D. Strauss  
week no. 29-31, 9-18, Lecture Room SNN-Unit, Building 90.5, Room U 34 at Campus  
Homburg, Neurozentrum
  - [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fri 8-10, Building E1.3, Lecture Hall 1

- [Bioelektrische Signale \(3 CP\)](#)  
Block course given by K.-P. Hoffmann  
Mon 16.30-18, Seminar Room in the 4th floor, Fraunhofer IBMT St. Ingbert
- Consider also specialised classes in computational linguistics.
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:
    - [Calculus of Variations \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by D. Apushkinskaya  
Mon 12-14, Wed 10-12, Building E2.4, Seminar Room 318
    - [Inverse Probleme mit Anwendungen in der Bildrekonstruktion \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by B. Hahn  
Tue 10-12, Building E2.4, Seminar Room 6
    - [Praktische Mathematik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Weißer  
Tue 8-10, Thu 14-16, Building E2.5, Lecture Hall 2
    - [Variationsrechnung \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mon 12-14, Wed 10-12, Building E2.4, Seminar Room 10
    - [Stochastische Numerik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2) given by S. Rjasanow  
Tue 14-16, Thu 08-10, Building E2.4, Seminar Room 6
    - [Stochastik I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Zöhlle  
Tue 14-16, Thu 12-14, Building E2.4, Seminar Room 10
    - [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Karrenbauer  
Wed 10-12, Fri 14-16, Building E1.3, Lecture Hall 1
    - [Partielle Differentialgleichungen II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Groves  
Mon 12-14, Thu 12-14, Building E2.4, Lecture Hall 4
  - Classes in Computer Science:
    - [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Karrenbauer  
Wed 10-12, Fri 14-16, Building E1.3, Lecture Hall 1
    - [Programmierung 2 \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Hack  
Tue 14-16, Fri 8-10, Building E2.2, G nter Hotz Lecture Theatre

- [Systemarchitektur \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Mon 8-10, Wed 8-10, Building E2.2, G  nter Hotz Lecture Theatre
- [Softwarepraktikum \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Zeller
- Classes in Mechatronics:
  - [Digitale Signalverarbeitung / Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Mon 10-12, Building A5.1, Lecture Hall 1.03
- Classes in Physics:
  - [Elementare Einf  hrung in die Physik II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by K. Jacobs  
Wed 10-12, Building C6.4, Lecture Hall 0.10
  - [Physik f  r Ingenieure II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by R. Birringer  
Fri 12-14, Building C6.4, Lecture Hall 0.10
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

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If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, October 19, 2015 at 2:15 pm in **E2.4, Room 115.**

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2015/2016

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Bildgebende Verfahren - Ultraschall \(4 CP\)](#)

Classroom lectures (2h) given by M. Fournelle

Mon 18-20, Building A5.1, Room 1.22

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert

Wed 10-12, Fri 12-14, Building E1.3, Lecture Hall 3

- [Image Compression \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter and J. Weickert

Thu 12-14, Building E1.3, Lecture Hall 1

- [Advanced Image Analysis \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Hafner and J. Weickert

Mon 14-16, Building E1.3, Lecture Hall 1

- [Probabilistic Graphical Models and their Applications \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele

Thu 10-12, Building E1.4, Seminar Room 0.24

- [Speech Technology - Pattern and Speech Recognition \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow

Tue 14-16, Building C7.3, Seminar Room 1.12

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek

Tue 08-10, Thu 16-18, Building E1.3, Lecture Hall 1

- [Perception in Computer Graphics \(3 CP\)](#)

Classroom lectures (2h) given by K. Myszkowski and P. Didyk



Mon 10-12, Building E1.4, Seminar Room 019

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Optimal Transport in Image Processing \(8 CP\)](#)  
Seminar given by M. Schmidt and J. Weickert  
Mon 16-18, Building E1.7, Room 410
- [Character Animation \(8 CP\)](#)  
Seminar given by A. Heloir
- [Interactive Digital Fabrication \(8 CP\)](#)  
Seminar given by J. Steimle, D. Gräßler, and M. Weigel  
Wed 14-15, Building E1.7, Room 008

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Machine Learning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Hein  
Wed 14-16, Fr 10-12, Building E1.3, Lecture Hall 1
- [Telecommunications I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building E1.3, Lecture Hall 1
- [Future Media Internet \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 14-16, Wed 12-14, Building C6.3, Room 9.05
- [Automatic Planning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann  
Mon 10-12, Tue 10-12, Building E1.3, Lecture Hall 3
- [Information Retrieval and Data Mining \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by G. Weikum  
Tue 14-16, Thu 14-16, Building E1.4, Room 0.24
- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Convex Analysis and Optimisation \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by P. Ochs  
Thu 10-12, Building E1.3, Lecture Hall 3
  - [PDE and Boundary-Value Problems \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by D. Apushkinskaya  
Mon 10-12, Fri 08-10, Building E1.3, Lecture Hall 1

- [Compressed Sensing in der Bildrekonstruktion \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by B. Hahn  
Fri 10-12, Place: TBA
- [Theorie und Numerik von gewöhnlichen Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Schuster  
Tue 08-10, Thu 14-16, Building E2.5, Lecture Hall 1
- [Modellieren mit partiellen Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 14-16, Thu 10-12, Building E2.5, Lecture Hall 2
- [Halbgruppen und Pseudodifferentialoperatoren für Evolutionsgleichungen und Markovsche Prozesse \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by Y. Kinderknecht  
Wed 10-12, Building A5.1, Lecture Hall 1 (1.03)
- [Stochastik II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Zähle  
Wed 14-16, Thu 10-12, Building E2.4, Seminar Room 10
- Classes in Computer Science:
  - [Algorithms and Data Structures \(9 CP\)](#)  
Block lecture course given by M. Hoefer and R. Seidel  
Lectures: 29.02. - 01.04.2016  
First lecture: 29.02.2016
  - [Multicore System Architecture \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Paul  
Tue 14-16, Fri 10-12, Building E1.3, Lecture Hall 3
  - [Software Engineering \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Zeller  
Tue 10-12, Thu 08-10, Building E2.2, Lecture Hall 1
  - [Grundzüge von Algorithmen und Datenstrukturen \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Bläser  
(not for students with a B.Sc. in Computer Science)  
Thu 12-14, Building E2.2, Lecture Hall 1
  - [Programmierung 1 \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by B. Finkbeiner  
(not for students with a B.Sc. in Computer Science)  
Tue 14-16, Thu 10-12, Building E2.2, Lecture Hall 1
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mon 10-13, Building A5.1, Lecture Hall 1 (-1.03)
- Classes in Physics:
  - [Elementare Einführung in die Physik I \(4 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by K. Jacobs

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings.

If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, April 18, 2016 at 2:16 pm in E2.4, Room 1.15

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Summer Semester 2016

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Image Acquisition Methods \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter and J. Weickert  
Thu 16-18, Building E1.3, Lecture Hall 3

- [Geometric Modeling \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by H.P. Seidel and R. Zayer  
Tue 14-16, Thu 10-12, Building E1.3, Lecture Hall 1

- [Akustische Abbildungsverfahren \(4 CP\)](#)

Classroom lectures (2h) given by U. Rabe  
Thu 10-12, Building E3.1, Seminar room of the IZFP  
Note: On demand, the lecture can be given in English

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by J. Weickert  
Tue 10-12, Building E2.2, Lecture Hall 0.01  
Fri 10-12, Building E1.3, Lecture Hall 2

- [Advanced Variational Methods in Image Processing and Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Ochs  
Thu 12-14, Building E1.3, Lecture Hall 1

- [Probabilistic Methods in Image Analysis \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by M. Schmidt and J. Weickert  
Wed 14-16, Building E1.3, Lecture Hall 1

- [High Level Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele  
Thu 14-16 Building E1.4, Seminar Room 0.24

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Slusallek, K. Myszkowski  
Mon 08-10, Thu 8-10, Building E1.3, Lecture Hall 1
- **Seminars:**  
(You need at least 8 graded CP from this category.)
  - [Inpainting in Image Coding \(8 CP\)](#)  
Seminar given by S. Schöffer and J. Weickert  
Tue 16-18, Building E1.7, Room 410
  - [Computer Vision for Computer Graphics \(8 CP\)](#)  
Seminar given by C. Theobalt, C. Richardt, and D. Casas  
Thu 14-16, Building E1.4, Room 0.21
- **Classes in Image Related Areas in Computer Science and Other Disciplines:**  
(From this category you need 9 graded CP.)
  - [Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann and W. Wahlster  
Mon 10-12, Tue 16-18, Building E2.2, Lecture Hall 0.01
  - [Telecommunications II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building C6.3, Seminar Room 9.05
  - [Advanced Topics in Information Retrieval \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by J. Strötgen and V. Setty  
Thu 14-16, Building E1.4, Room 023
  - [Computational Fabrication \(3 CP\)](#)  
Classroom lectures (2h) given by P. Didyk  
Wed 10-12 Building E1.7, Seminar Room 008
  - [Topics in Algorithmic Data Analysis \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by P. Miettinen and J. Vreeken  
Thu 10-12 Building E1.3, Seminar Room 0.14
  - [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fri 8-10, Building E1.3, Lecture Hall 1
  - [Neural and Cognitive Systems \(6 CP\)](#)  
Block course given by D. Strauss  
week no. 25-27 at Campus Homburg, Neurozentrum
  - Consider also specialised classes in computational linguistics.
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:

- [Calculus of Variations \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by D. Apushkinskaya  
Tue 08-10, Fri 08-10, Building E1.3, Lecture Hall 3
- [Convex Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Hein  
Tue 14-16, Fri 10-12, Building E2.4, Seminar Room 6
- [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Chalermsook and A. Wiese  
Mon 12-14, Wed 12-14, Building E1.3 Lecture Hall 3
- [Praktische Mathematik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 8-10, Thu 14-16, Building E2.5, Lecture Hall 2
- [Differentialgeometrie \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mon 12-14, Wed 10-12, Building E2.4, Seminar Room 10
- [Stochastik I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. ZÄhle  
Tue 10-12, Thu 10-12, Building E2.4, Seminarroom 10
- [Lineare und nichtlineare Optimierung \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Schuster  
Tue 14-16, Thu 08-10, Building E2.5 Lecture Hall 2
- Classes in Computer Science:
  - [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Chalermsook and A. Wiese  
Mon 12-14, Wed 12-14, Building E1.3 Lecture Hall 3
  - [Embedded Systems \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by B. Finkbeiner and S. Jacobs  
Mon 14-16, Wed 10-12, Fri 12-14, Building E1.3, Lecture Hall 1
  - [Randomized Algorithms and Probabilistic Analysis of Algorithms \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by K. Mehlhorn and T. Kesselheim  
Mon 16-18, Building E1.4, Seminarroom 0.24
  - [Programmierung 2 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by S. Hack and S. Moll  
Tue 14-16, Fri 8-10, Building E2.2, Lecture Hall 0.01
  - [Systemarchitektur \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by J. Reineke  
Mon 8-10, Wed 8-10, Building E2.2 Lecture Hall 0.01
  - [Softwarepraktikum \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by A. Zeller



- Classes in Mechatronics:
  - [Digitale Signalverarbeitung / Digital Signal Processing \(6 CP\)](#)  
Block course given by R. Mahdian and D. Klakow  
Building A5.1, Lecture Hall -1.22  
Starts: March, 22nd
- Classes in Physics:
  - [Elementare Einführung in die Physik II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by F. Mäßler  
Wed 10-12, Building C6.4, Lecture Hall 0.10
  - [Physik für Ingenieure II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by R. Seemann  
Fr. 12-14, Building C6.4, Lecture Hall 0.10
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - The [International Office](#) of Saarland University offers a number of [German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings.

If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, October 24, 2016 at 2:15 pm in **E2.4, Lecture Hall IV.**

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2016/2017

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Bildgebende Verfahren - Ultraschall \(Ultrasound Imaging\) \(4 CP\)](#)

Classroom lectures (2h) given by M. Fournelle

Mon 16-18, Building E2.6, Seminar Room 11

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Peter

Mon 14-16, Building E1.3, Lecture Hall 3

Fri 14-16, Building E1.3, Lecture Hall 1

- [Probabilistic Graphical Models and their Applications \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele, and B. Andres

Wed 14-16, Thu 10-12, Building E1.4, Seminar Room 0.24

- [Speech Technology - Pattern and Speech Recognition \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by D. Klakow

Tue 14-16, Building C7.3, Seminar Room 1.12

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek

Tue 08-10, Thu 12-14, Building E1.3, Lecture Hall 1

- [Perception in Computer Graphics \(3 CP\)](#)

Classroom lectures (2h) given by K. Myszkowski, and P. Didyk

Wed 10-12, Building E1.4, Room 19

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [MIT's Golden Age of Vision \(8 CP\)](#)

Seminar given by S. Andris, and J. Weickert

Wed 16-18, Building E1.7, Room 410

- [Virtual Reality: Theory and Practice \(8 CP\)](#)  
Seminar given by M. Speicher, and A. Zenner
- [Attentive User Interfaces \(8 CP\)](#)  
Seminar given by A. Bulling, and J. Steil  
Tue 10-12, Building E1.4, Room 021
- [Software design and architectures for interactive avatars: a hands-on approach \(8 CP\)](#)  
Seminar given by F. Nunnari, and A. Heloir  
Fri, a slot between 10:00 and 16:00

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Machine Learning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Hein  
Tue 16-18, Fr 10-12, Building E1.3, Lecture Hall 2
- [Telecommunications I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building E1.3, Lecture Hall 1
- [Future Media Internet \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 14-16, Wed 12-14, Building C6.3, Room 9.05
- [Automatic Planning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann, and A. Torralba  
Mon 10-12, Tue 10-12, Building E1.3, Lecture Hall 3
- [Physical Computing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by J. Steimle  
Wed 10-12, Building E1.7, Room 001
- [Elements of Statistical Learning \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Lengauer  
Tue 10-12, Building E1.4, Seminar Room 0.24  
Wed 10-12, Building E2.1, Seminar Room 0.01
- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Convex Analysis in Image Processing \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Augustin  
Mon 12-14, Building E1.3, Lecture Hall 3  
Thu 16-18, Building E1.3, Lecture Hall 1

- [PDE and Boundary-Value Problems \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by D. Apushkinskaya  
Wed 10-12, Building E1.3, Lecture Hall 3  
Fri 08-10, Building E1.3, Lecture Hall 1
- [Theorie und Numerik von gewöhnlichen Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Schuster  
Tue 08-10, Thu 14-16, Building E2.5, Lecture Hall 1
- [Numerik partieller Differentialgleichungen \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Mon 14-16, Thu 8-10, Building E2.5, Lecture Hall 3
- [Stochastik II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Zühlke  
Tue 10-12, Wed 14-16, Building E2.4, Seminar Room 6
- [Inverse Probleme \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Schuster  
Tue 12-14, Fri 10-12, Building E2.4, Lecture Hall 4
- [Funktionalanalysis 1 \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Eschmeier  
Tue 8-10, Thu 8-10, Building E2.4, Lecture Hall 4
- [Mathematische Statistik \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by P. Kern, and H. Zühlke  
Thu 10-12, Building E2.4, Seminar Room 6
- Classes in Computer Science:
  - [Algorithms and Data Structures \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by K. Bringmann, and E. van Leeuwen  
Mon 16-18, Wed 16-18, Building E1.3, Lecture Hall 2
  - [Modelling and Simulation \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by V. Wolf  
Wed 10-12, Fri 10-12, Building E1.3, Lecture Hall 1
  - [Grundzüge von Algorithmen und Datenstrukturen \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by A. Karrenbauer  
(not for students with a B.Sc. in Computer Science)  
Thu 12-14, Building E2.2, Lecture Hall 1
  - [Programmierung 1 \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Hermanns  
(not for students with a B.Sc. in Computer Science)  
Tue 14-16, Thu 10-12, Building E2.2, Lecture Hall 1
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mon 10-13, Building A5.1, Lecture Hall 1 (-1.03)

- Classes in Physics:
  - [Elementare Einführung in die Physik I \(4 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by F. Mller  
Wed 10-12, Building C6.4, Lecture Hall (0.10)

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings.

If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Tuesday, April 18, 2017 at 2:15 pm in E2.4, Room 1.15

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Summer Semester 2017

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Geometric Modeling \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by H.P. Seidel and R. Zayer  
Wed 10-12, Fri 12-14, Building E1.3, Lecture Hall 1

- [Physikalische Akustik 1 \(3 CP\)](#)

Classroom lectures (2h) given by U. Rabe  
Thu 8.30-10, Building E3.1, Seminar room of the IZFP

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by J. Weickert  
Tue 10-12, Fri 10-12, Building E1.3, Lecture Hall 1

- [Correspondence Problems in Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter  
Mon 16-18, Building E1.3, Lecture Hall 3

- [Image Compression \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter  
Thu 12-14, Building E1.3, Lecture Hall 1

- [High Level Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele and M. Fritz  
Mon 14-16, Wed 14-16, Building E1.4, Seminar Room 0.24

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek and K. Myszkowski  
Mon 14-16, Thu 10-12, Building E1.3, Lecture Hall 1

- **Seminars:**

(You need at least 8 graded CP from this category.)



- [Statistics of Natural Images \(8 CP\)](#)  
Seminar given by S. Andris and J. Weickert  
Wed 16-18, Building E1.7, Room 410
- [Computer Vision for Computer Graphics \(8 CP\)](#)  
Seminar given by C. Theobalt, M. Zollhöfer, and W. Xu  
Thu 14-16, Building E1.4, Room 0.21

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann and W. Wahlster  
Mon 10-12, Tue 16-18, Building E2.2, Lecture Hall 0.01
- [Telecommunications II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building C6.3, Seminar Room 9.05
- [Topics in Algorithmic Data Analysis \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by J. Vreeken  
Thu 10-12, Building E1.7, Room 0.01
- [Data Mining and Matrices \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by P. Miettinen, S. Karaev, and S. Metzler  
Mon 14-16, Building E1.5, Room 029
- [Computational Fabrication \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by P. Didyk  
Wed 14-16, Building E1.7, Room 0.08
- [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fri 8.30-10, Building E1.3, Lecture Hall 1
- [Human-Computer Interaction \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Steimle  
Mon 16-18, Wed 14-16, Building E1.3, Lecture Hall 1
- [Neural and Cognitive Systems \(6 CP\)](#)  
Block course given by D. Strauss  
tba
- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Calculus of Variations \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by D. Apushkinskaya

Tue 08-10, Fri 08-10, Building E2.5, Lecture Hall 1

- [Numerical Algorithms for Visual Computing \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Augustin  
Tue 8-10, Thu 16-18, Building E1.3 Lecture Hall 3
- [Convex Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Hein  
Mon 10-12, Thu 10-12, Building E1.3, Lecture Hall 3
- [Partial Differential Equations 1 \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Groves  
Wed 10-12, Building E2.4, Seminar Room 10  
Thu 10-12, Building E2.4, Lecture Hall 4
- [Inverse Problems in Banach Spaces \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by T. Schuster  
Tue 10-12, Fri 10-12, Building E2.4, Seminar Room 6
- [Operatorhalbgruppen, Markovsche Prozesse und Evolutionsgleichungen \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by Y. Kinderknecht  
Mon 12-14, Building E2.4, Seminar Room 9
- [Stochastik I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Zühlke  
Tue 10-12, Fri 10-12, Building E2.4, Seminar Room 6

◦ Classes in Computer Science:

- [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Karrenbauer  
Tue 14-16, Thu 14-16, Building E1.3, Lecture Hall 3
- [Software Engineering \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Zeller  
Tue 8-10, Thu 8-10, Building E2.2, Lecture Hall 0.01
- [Programmierung 2 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by S. Hack  
Tue 14-16, Fri 8-10, Building E2.2, Lecture Hall 0.01
- [Systemarchitektur \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by J. Reineke  
Mon 8-10, Wed 8-10, Building E2.2, Lecture Hall 0.01
- [Softwarepraktikum \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by A. Zeller

◦ Classes in Mechatronics:

- [Digitale Signalverarbeitung / Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Mon 10-12, Building A5.1, Lecture Hall -1.03

- Classes in Physics:
  - [Elementare Einführung in die Physik II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by F. Mller  
Wed 10-12, Building C6.4, Lecture Hall 0.10
  - [Physik fr Ingenieure II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by R. Seemann  
Fri 12-14, Building C6.4, Lecture Hall 0.10
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - The [International Office](#) of Saarland University offers a number of [German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

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If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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**The information on this page is preliminary and might still change slightly.**

- **Information Meeting on Visual Computing**

Monday, October 16, 2017 at 2:15 pm in **E2.4, Room 115 (Seminar Room IV)**

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2017/2018

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Image Acquisition Methods \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter  
Thu 10-12, Building E1.3, Lecture Hall 3

- [Ultrasound Imaging \(4 CP\)](#)

Classroom lectures (2h) given by M. Fournelle  
Mon 16-18, Building E2.6, Room E 12

- [Physikalische Akustik 2 \(3 CP\)](#)

Classroom lectures (2h) given by M. Spies  
Thu 8.30-10, Building E3.1, Seminar Room

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tue 08-10, Fri 10-12, Building E1.3, Lecture Hall 1

- [Advanced Image Analysis \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter  
Thu 16-18, Building E1.3, Lecture Hall 3

- [Probabilistic Graphical Models and their Applications \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele  
Mon 10-12, Tue 10-12, Building E1.4, Seminar Room 0.23

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek  
Mon 14-16, Wed 10-12, Building E1.3, Lecture Hall 1

- [Perception for Computer Graphics \(3 CP\)](#)  
Classroom lectures (2h) given by K. Myszkowski and P. Didyk  
Wed 10-12, Building E1.4, Room 019

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Hybrid Video Coding \(8 CP\)](#)  
Seminar given by S. Andris and J. Weickert  
Tue 16-18, Building E1.7, Room 410
- [Software Design and Architectures for Interactive Avatars: a Hands-on Approach \(8 CP\)](#)  
Seminar given by F. Nunnari and A. Heloir  
Fri 10-12, Building E1.1, Seminar Room 1.06
- [Making Mixed Reality \(VR/AR\) great again! \(8 CP\)](#)  
Seminar given by M. Speicher, A. Zenner and D. Degraen  
Tue 10-12, Building D3 (DFKI), Room -2.17

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Neural Networks: Implementation and Application \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Tue 14-16, Building E1.3, Lecture Hall 1
- [Telecommunications I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building E1.3, Lecture Hall 1
- [Future Media Internet \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 14-16, Wed 12-14, Building C6.3, Room 9.05
- [Automatic Planning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann  
Mon 10-12, Tue 10-12, Building E1.3, Lecture Hall 3
- [Tensors in Data Analysis \(5 CP\)](#)  
Block course given by P. Miettinen  
From October 9 to October 13, 10-12, 12-14, Building E1.4, Room 023
- [Information Retrieval and Data Mining \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Vreeken and J. Strödtgen  
Wed 14-16, Fri 12-14, Building E1.3, Lecture Hall 2
- [Elements of Statistical Learning \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Lengauer  
Wed 10-12, Building E2.1, Seminar Room 0.01
- [Human Computer Interaction \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Steimle  
Tue 16-18, Thu 16-18, Building E2.2, Lecture Hall 1

- [Text-to-speech Synthesis \(3 CP\)](#)  
Classroom lectures (2h) given by B. Möllbuis  
Tue 16-18, Building C7.2, Seminar Room
- Consider also specialised classes in computational linguistics.
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:
    - [Convex Analysis in Image Processing \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Augustin  
Mon 12-14, Thu 08-10, Building E1.3, Lecture Hall 1
    - [Numerics I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Schuster  
Tue 08-10, Thu 14-16, Building E2.5, Lecture Hall 1
    - [Stochastics II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Zöchle  
Tue 10-12, Thu 10-12, Building E2.4, Seminar Room 6
    - [Functional Analysis I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Weber  
Tue 14-16, Thu 14-16, Building E2.4, Lecture Hall 4
    - [Parameter Identification for PDEs \(3 CP\)](#)  
Classroom lectures (2h) given by A. Wald  
Wed 12-14, Building E2.4, Seminar Room 6
    - [Computer Algebra \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Sagraloff  
Mon 12-14, Wed 12-14, Building E1.4, Room 24
    - [Differentialgeometrie 1 \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Fuchs  
Fri 12-14, Building E2.4, Lecture Hall 4
  - Classes in Computer Science:
    - [Algorithms and Data Structures \(9 CP\)](#)  
Block Course given by R. Seidel  
TBA
    - [Grundzüge von Algorithmen und Datenstrukturen \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by H. Dell  
(not for students with a B.Sc. in Computer Science)  
Thu 12-14, Building E2.2, Lecture Hall 1
    - [Programmierung 1 \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by B. Finkbeiner  
(not for students with a B.Sc. in Computer Science)  
Tue 14-16, Thu 10-12, Building E2.2, Lecture Hall 1



- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mon 10-13, Building A5.1, Lecture Hall 1 (-1.03)
- Classes in Physics:
  - [Elementare Einführung in die Physik I \(4 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by F. Mller  
Wed 10-12, Building C6.4, Lecture Hall (0.10)
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings.

If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, April 9, 2018 at 2:15 pm in E2.4, Lecture Hall 4

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Summer Semester 2018

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Geometric Modeling \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by H.P. Seidel and R. Zayer  
Mon 14-16, Wed 12-14, Building E1.3, Lecture Hall 3

- [Physikalische Akustik 1 \(3 CP\)](#)

Classroom lectures (2h) given by M. Spies  
Thu 8.30-10, Building E3.1, Seminar room of the IZFP

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tue 10-12, Fri 10-12, Building E1.3, Lecture Hall 1

- [Image Compression \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Peter  
Mon 12-14, Wed 10-12, Building E1.3, Lecture Hall 1

- [High Level Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele and M. Fritz  
Wed 14-16, Building E1.4, Seminar Room 0.24

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek, K. Myszkowski, and G. Singh  
Mon 10-12, Thu 10-12, Building E1.3, Lecture Hall 1

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Machine Learning for Image Analysis \(8 CP\)](#)

Seminar given by L. Bergerhoff and J. Weickert  
Wed 16-18, Building E1.7, Room 410

- [Rendering Techniques \(8 CP\)](#)  
Seminar given by P. Slusallek, S. Lemme, and A. Pärard-Gayot  
Thu 14-16, Building E1.4, Room 0.21
- [3D Shape Analysis \(8 CP\)](#)  
Seminar given by F. Bernard and C. Theobalt  
Thu 14-16, Building E1.4, Rooms 0.19/0.21
- **Classes in Image Related Areas in Computer Science and Other Disciplines:**  
(From this category you need 9 graded CP.)
  - [Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by W. Wahlster and A. Torralba  
Tue 16-18, Thu 16-18, Building E2.2, Lecture Hall 0.01
  - [Telecommunications II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building C6.3, Seminar Room 9.05
  - [Topics in Algorithmic Data Analysis \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by J. Vreeken  
Thu 14-16, Building E1.7, Room 0.01
  - [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fri 8.30-10, Building E1.3, Lecture Hall 1
  - [Zerstörungsfreie Prüfverfahren I \(4 CP\)](#)  
Classroom lectures (2h) given by C. Boller  
Thu 8.30-10, Building E2.5, Lecture Hall 3
  - Consider also specialised classes in computational linguistics.
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:
    - [Numerical Algorithms for Visual Computing \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Augustin  
Tue 8-10, Building E1.3, Lecture Hall 3  
Thu 12-14, Building E1.3, Lecture Hall 1
    - [Continuous Optimization \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by P. Ochs  
Tue 14-16, Building E2.4, Lecture Hall 4
    - [Analytical Methods for PDEs \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by Y. Kinderknecht  
Thu 8-10, Building E2.4, Lecture Hall 4  
Thu 14-16, Building E2.4, Seminar Room 6

- [Differential Geometrie II \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Fuchs  
Wed 10-12, Building E2.4, Lecture Hall 4
- [Numerics II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Weisser  
Tue 8-10, Thu 14-16, Building E2.5, Lecture Hall 3
- [Stochastik I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by C. Bender  
Mon 12-14, Wed 8-10, Building E2.4, Seminar Room 6
- [Mathematische Statistik \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. ZÄhler  
Tue 10-12, Thu 10-12, Building E2.4, Seminar Room 6
- Classes in Computer Science:
  - [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Karrenbauer  
Tue 14-16, Thu 14-16, Building E1.3, Lecture Hall 1
  - [Embedded Systems \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by B. Finkbeiner  
Tue 12-14, Thu 10-12, Building E1.3, Lecture Hall 3
  - [Algorithms for Sequence Analysis \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Marschall and M. Schulz  
Tue 14-16, Building E1.7, Room 001
  - [Programmierung 2 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by S. Hack and J. Hoffmann  
Tue 14-16, Fri 8-10, Building E2.2, Lecture Hall 0.01
  - [Systemarchitektur \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by J. Reineke  
Mon 8-10, Wed 8-10, Building E2.2, Lecture Hall 0.01
  - [Softwarepraktikum \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h)
- Classes in Mechatronics:
  - [Digitale Signalverarbeitung / Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Mon 10-12, Building A5.1, Lecture Hall -1.03
- Classes in Physics:
  - [Elementare Einführung in die Physik II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by F. MÄller  
Wed 10-12, Building C6.4, Lecture Hall 0.10

- [Physik für Ingenieure II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by R. Birringer  
Mon 12-14, Building C6.4, Lecture Hall 0.10

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- The [International Office](#) of Saarland University offers a number of [German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

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- **Information Meeting on Visual Computing**

Monday, October 15, 2018 at 2:15 pm in **E 2.4, Room 115 (Seminar Room IV)**

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2018/2019

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Image Acquisition Methods \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter  
Thu 14-16, Building E 1.3, Lecture Hall 1

- [Ultraschall \(Ultrasound Imaging\) \(4 CP\)](#)

Classroom lectures (2h) given by M. Fournelle  
Mon 16-18, Building E 2.6, Room E 11

- [Physikalische Akustik 2 \(4 CP\)](#)

Classroom lectures (2h) given by M. Spies  
Thu 8:30-10, Building E 3.1, Seminar Room

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Peter  
Tue 10-12, Fri 14-16, Building E 1.3, Lecture Hall 1

- [Probabilistic Graphical Models and their Applications \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by G. Pons-Moll and P. Swoboda  
Wed 14-16, Fri 10-12, Building E 1.4, Room 024

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek  
Mon 10-12, Thu 08-10, Building E 1.3, Lecture Hall 1

- [Perception for Computer Graphics \(3 CP\)](#)

Classroom lectures (2h) given by K. Myszkowski and O. T. Tursun  
Wed 12-14, Building E 1.4, Room 019

- **Seminars:**

(You need at least 8 graded CP from this category.)



- [Advances in Image Processing and Computer Vision \(8 CP\)](#)  
Seminar (2h) given by L. Bergerhoff and J. Weickert  
Wed 16-18, Building E 1.7, Room 4.10
- [Computational Fabrication \(8 CP\)](#)  
Seminar (2h) given by H.-P. Seidel and V. Babaei  
Fri 16-18, Building E 1.7, Room 323

• **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Telecommunications I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 08-10, Building E 1.3, Lecture Hall 1
- [Future Media Internet \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 14-16, Wed 12-14, Building C 6.3, Room 9.05
- [Neural Networks: Implementation and Application \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Tue 14-16, Building E 1.3, Lecture Hall 2
- [The Elements of Statistical Learning \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Marschall and J. Vreeken  
Thu 10-12, Building E 2.1, Room 1
- [Machine Learning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by B. Schiele  
Mon 14-16, Wed 10-12, Building E 1.3, Lecture Hall 2
- [AI Planning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by Ã. Torralba and C. Croitoru  
Tue 12-14, Wed 16-18, Building E 1.3, Lecture Hall 2
- [Human Computer Interaction \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Steimle  
Tue 10-12, Wed 14-16, Building E 1.3, Lecture Hall 2
- [Kinematik, Dynamik und Anwendung in der Robotik \(4 CP\)](#)  
Classroom lectures (3h) given by R. MÃ¼ller  
Thu 14:15-17:30, ZeMA, Eschberger Weg 46
- [Mensch-Roboter-Kooperation in der industriellen Produktion \(4 CP\)](#)  
Block course given by R. MÃ¼ller  
ZeMA, Eschberger Weg 46
- Consider also specialised classes in computational linguistics.

• **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.


- Classes in Mathematics:

- [Interpolation and Approximation for Visual Computing \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Augustin  
Mon 12-14, Building E 1.3, Lecture Hall 1  
Wed 16-18, Building E 1.3, Lecture Hall 3
- [Convex Analysis and Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Ochs  
Tue 14-16, Thu 10-12, Building E 1.3, Lecture Hall 3
- [Functional Analysis I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by D. Schillo  
Tue 14-16, Thu 14-16, Building E 2.4, Lecture Hall 4 (1.15)
- [Partial Differential Equations I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mon 12-14, Wed 10-12, Building E 2.4, Lecture Hall 4 (1.15)
- [Modeling with Partial Differential Equations \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 10-12, Building E 2.4, Seminar Room 6  
Thu 08-10, Building E 2.5, Lecture Hall 3
- [Tensor Product Approximations and Inverse Problems \(3 CP\)](#)  
Classroom lectures (2h) given by A. Wald  
Wed 12-14, Building E 2.4, Seminar Room 6
- [Minimal Surfaces \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by M. Fuchs  
Fri 12-14, Building E 2.4, Seminar Room 10
- [Operator Semigroups, Markov Processes and Evolution Equations \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by Y. Kinderknecht  
Thu 10-12, Building E 2.4, Seminar Room 9
- [Non-Parametric Regression \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by C. Bender  
Thu 12-14, Building E 2.4, Seminar Room 10
- [Stochastics II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by C. Bender  
Mon 12-14, Thu 10-12, Building E 2.4, Seminar Room 10

- Classes in Computer Science:

- [Algorithms and Data Structures \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by R. Seidel  
Wed 08-10, Thu 12-14, Building E 1.3, Lecture Hall 2
- [Multivariate Algorithmics \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by K. Bringmann and H. Dell  
Tue 16-18, Thu 16-18, Building E 1.4, Room 024

- [Randomized and Approximation Algorithms \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by A. Antoniadis and M. KÄ¼nnemann  
Tue 14-16, Thu 14-16, Building E 1.4, Room 024
- [Algorithms on Directed Graphs \(5 CP\)](#)  
Classroom lectures (4h) given by S. Amiri, W. Rosenbaum and E. Oh  
Mon 10-12, Wed 16-18, Building E 1.4, Room 024
- [Space Informatics \(5 CP\)](#)  
Block course given by J. Fraire and H. Hermanns  
Building E 1.3, Lecture Hall 1
- [Programmierung 1 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by G. Smolka  
Tue 14-16, Thu 10-12, Building E 2.2, Lecture Hall 1
- [GrundzÄ¼ge von Algorithmen und Datenstrukturen \(6 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (2h) with tutorials (2h) given by W. J. Paul  
Thu 12-14, Building E 2.2, Lecture Hall 1
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mon 10-13, Building A 5.1, Lecture Hall 1.03
- Classes in Physics:
  - [Elementare EinfÄ¼hrung in die Physik I \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by F. MÄ¼ller  
Wed 10-12, Building C 6.4, Lecture Hall 0.10
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after [approval in advance](#).



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- **Information Meeting on Visual Computing**

Monday, April 8, 2018 at 2:15 pm in **E 2.4, Room 115 (Seminar Room IV)**

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Summer Semester 2019

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Physikalische Akustik I \(3 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by M. Spies  
Thu 8:30-10, Building E 3.1, Seminar Room

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tue 10-12, Fri 10-12, Building E 1.3, Lecture Hall 1

- [Image Compression \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Peter  
Mon 12-14, Fri 14-16, Building E 1.3, Lecture Hall 1

- [High-Level Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele and M. Fritz  
Wed 10-12, Building E 1.4, Room 024

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek, K. Myszkowski and G. Singh  
Tue 8-10, Fri 12-14, Building E 1.3, Lecture Hall 1

- [Computation and Fabrication \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by V. Babaei and H.-P. Seidel  
Wed 14-16, Building E 1.7, Room 0.08

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Inverse Problems in Image Processing \(8 CP\)](#)

Seminar (2h) given by L. Bergerhoff and J. Weickert  
Thu 16-18, Building E 1.7, Room 4.10

- [Real-Time Rendering \(8 CP\)](#)  
Seminar (2h) given by S. Lemme, A. Pärard-Gayot, R. Membarth and P. Slusallek  
Starts on: 9 April Tue 16-18, Building E 1.1, Room E 09
- [Computer Vision and Machine Learning for Computer Graphics \(8 CP\)](#)  
Seminar (2h) given by C. Theobalt, M. Elgharib and V. Golyanik  
Thu 14-16, Building E 1.4, Room 021
- [Motion Synthesis for Virtual Characters \(8 CP\)](#)  
Seminar (2h) given by K. Fischer  
Wed 16-18, Building D 3.2, Room "Turing 1" (NB R +2.30)

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Kähler and A. Torralba  
Mon 14-16, Building E 2.5, Lecture Hall 1  
Tue 16-18, Building E 2.2, Lecture Hall 1
- [Audio/Visual Communication and Networks \(Telecommunications II\) \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, Building C 6.3, Room 9.05
- [Topics in Algorithmic Data Analysis \(6 CP\)](#)  
Classroom lectures (2h) with assignments given by J. Vreeken  
Thu 10-12, (Tue 10-12), Building E 1.7, Room 0.01
- [Topics in Neural Information Retrieval \(6 CP\)](#)  
Classroom lectures (2h) with assignments given by A. Yates  
Tue 14-16, Building E 1.5, Room 029
- [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fri 8:30-10, Building E 1.3, Lecture Hall 3
- [Zerstörungsfreie Prüfverfahren I \(4 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by C. Boller  
Thu 8:30-10, Building E 2.5, Lecture Hall 3
- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Numerical Algorithms for Visual Computing \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Augustin  
Mon 14-18, Thu 12-14, Building E 1.3, Lecture Hall 1



- [Numerical Methods for ODEs \(6/9 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by P. Ochs  
Tue 16-18, Thu 8-10, Building E 1.3, Lecture Hall 1
- [Numerical Internship in Computerized Tomography \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Wald  
Mon 10-12, Wed 12-14, Building E 2.4, Seminar Room 6
- [Computer Algebra \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by F.-O. Schreyer  
Tue 12-14, Thu 10-12, Building E 1.3, Lecture Hall 1
- [Partial Differential Equations II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mon 10-12, Wed 10-12, Building E 2.4, Lecture Hall 4
- [Stochastics I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by C. Bender  
Mon 12-14, Wed 8:30-10, Building E 2.4, Seminar Room 6 (2.17)
- Classes in Computer Science:
  - [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Karrenbauer  
Tue 14-16, Thu 14-16, Building E 1.4, Room 024
  - [Distributed and Sequential Graph Algorithms \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by S. Amiri and P. Misra  
Tue 10-12, Building E 1.4, Room 024
  - [Information Theory \(3 CP\)](#)  
Block course given by V. Damberg, M. Crocker and A. Mogadala
  - [Programmierung 2 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann  
Tue 14-16, Fri 8-10, Building E 2.2, Lecture Hall 1
  - [Systemarchitektur \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by J. Reineke  
Wed 9-10, Fri 12-14, Building E 2.2, Lecture Hall 1
  - [Softwarepraktikum \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) given by A. Zeller
- Classes in Mechatronics:
  - [Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mon 10-12, Building A 5.1, Lecture Hall 1 (-1.03)
  - [Multisensorsignalverarbeitung \(4 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by A. SchÃ¼tze  
Mon 10-12, Building A 5.1, Lecture Hall 1 (-1.22)

- Classes in Physics:
  - [Elementare Einführung in die Physik I \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by F. Mller  
Wed 10-12, Building C 6.4, Lecture Hall 0.10
  - [Physik fr Ingenieure II \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by R. Birringer  
Mon 12-14, Building C 6.4, Lecture Hall 0.10
- **Additional Classes:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
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  - Any of the classes of the first three categories.
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A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

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If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, October 14, 2019 at 2:15 pm in **E 2.4, Room 115 (Seminar Room IV)**

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2019/2020

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Image Acquisition Methods \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter  
Fri 12-14, Building E 1.3, Lecture Hall 1

- [Geometric Modeling \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by R. Zayer  
Mon 14-16, Thu 16-18, Building E 1.3, Lecture Hall 3

- [Ultraschall \(Ultrasound Imaging\) \(4 CP\)](#)

Classroom lectures (2h) given by M. Fournelle  
Mon 16-18, Building E 2.6, Room E 11

- [Physikalische Akustik 2 \(4 CP\)](#)

Classroom lectures (2h) given by M. Spies  
Thu 8:30-10, Building E 3.1, Seminar Room

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Wed 10-12, Fri 10-12, Building E 1.3, Lecture Hall 1

- [Differential Geometric Aspects of Image Processing \(6 CP\)](#)

Classroom lectures (3h) with tutorials (1h) given by M. Cardenas  
Tue 16-18, Thu 14-16, Building E 1.3, Lecture Hall 3

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Computer Graphics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek  
Mon 10-12, Thu 08-10, Building E 1.3, Lecture Hall 1

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Deep Learning: From Mathematical Foundations to Image Compression \(8 CP\)](#)  
Seminar (2h) given by P. Peter and J. Weickert  
Wed 16-18, Building E 1.7, Room 4.10
- [Computational Design and Manufacturing \(8 CP\)](#)  
Seminar (2h) given by H.-P. Seidel and V. Babaei  
Fri 10-12, Building E 1.7, Room 0.08

• **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Digital Transmission & Signal Processing \(Telecommunications I\) \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 08-10, Building E 1.3, Lecture Hall 1
- [Multimedia Transport \(Future Media Internet\) \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 14-16, Wed 12-14, Building C 6.3, Room 9.05
- [Elements of Data Science and Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by V. Demberg, J. Dittrich, J. Hoffmann, B. Schiele  
Mon 10-12, Thu 12-14, Building E 1.3, Lecture Hall 2
- [Information Retrieval and Data Mining \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Yates and R.S. Roy  
Wed 16-18, Fri 14-16, Building E 1.3, Lecture Hall 2
- [Human Computer Interaction \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Steimle  
Tue 10-12, Wed 14-16, Building E 1.3, Lecture Hall 2
- [Neural Networks: Theory and Implementation \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Tue 14-16, Building E 1.3, Lecture Hall 2
- [Information Extraction \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by S. Razniewski  
Tue 10-12, Building E 1.4, Room 024
- [The Elements of Statistical Learning \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by T. Marschall and J. Vreeken  
Thu 10-12, Building E 2.1, Room 0.01
- [Machine Learning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Ochs  
Mon 14-16, Wed 10-12, Building E 1.3, Lecture Hall 2
- [AI Planning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann  
Tue 12-14, Wed 10-12, Building E 1.3, Lecture Hall 3
- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:

- [Interpolation and Approximation for Visual Computing \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Augustin  
Mon 12-14, Thu 12-14, Building E 1.3, Lecture Hall 1
- [Convex Analysis and Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Ochs  
Tue 14-16, Wed 16-18, Building E 1.3, Lecture Hall 3
- [Functional Analysis I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Groves  
Tue 12-14, Building E 2.4, Lecture Hall 4 (1.15)  
Thu 12-14, Building E 2.4, Seminar Room 10
- [Stochastics II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by C. Bender  
Tue 8-10, Thu 8-10, Building E 2.4, Seminar Room 10
- [Brownian Motion and its Applications to PDEs \(5 CP\)](#)  
Classroom lectures (2h) given by Y. Kinderknecht  
Thu 12-14, Building E 2.4, Seminar Room 9
- [Time Series Analysis \(5 CP\)](#)  
Classroom lectures (2h) given by H. Zaehle  
Thu 10-12, Building E 2.4, Seminar Room 10

- Classes in Computer Science:

- [Algorithms and Data Structures \(9 CP\)](#)  
Block lecture given by R. Seidel
- [Software Engineering \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Apel  
Mon 8-10, Tue 12-14, Building E 2.2, Lecture Hall 1
- [Programmierung 1 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by H. Hermanns  
Tue 14-16, Thu 10-12, Building E 2.2, Lecture Hall 1
- [Grundzüge von Algorithmen und Datenstrukturen \(6 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (2h) with tutorials (2h) given by R. Seidel  
Thu 12-14, Building E 2.2, Lecture Hall 1

- Classes in Mechatronics:

- [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mon 10-12, Mon 13-14, Building A 5.1, Lecture Hall 1.03

- Classes in Physics:

- [Elementare Einführung in die Physik I \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by F. Mller  
Wed 10-12, Building C 6.4, Lecture Hall 0.10

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings.

If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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## Preliminary List of Classes Offered in the Summer Semester 2020

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Physikalische Akustik I \(3 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by M. Spies  
Thu 8:30-10

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Tue 10-12, Fri 10-12

- [Image Compression \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Peter  
Mon 14-16, Wed 12-14

- [High-Level Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele and M. Fritz  
Wed 10-12

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek, K. Myszkowski and G. Singh  
Mon 10-12, Thu 10-12

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Advances in Inpainting \(8 CP\)](#)

Seminar (2h) given by S.Andris, J.A.Tomasson and J. Weickert  
Wed 16-18

- [Computer Vision and Machine Learning for Computer Graphics \(8 CP\)](#)

Seminar (2h) given by C. Theobalt, M. Elgharib and V. Golyanik  
Thu 14-16

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann and J. Kähler  
Mon 16-18, Tue 14-16
- [Audio/Visual Communication and Networks \(Telecommunications II\) \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 12-14
- [Topics in Algorithmic Data Analysis \(6 CP\)](#)  
Classroom lectures (2h) with assignments given by J. Vreeken  
Thu 10-12, (Tue 10-12)
- [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fri 8:30-10
- [Zerstörungsfreie Prüfverfahren I \(4 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by C. Boller  
Thu 8:30-10

- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Numerical Algorithms for Visual Computing \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Augustin  
Tue 12-14, Fri 12-14
  - [Continuous Optimisation \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Ochs  
Tue 8:30-10, Wed 8:30-10
  - [Partial Differential Equations I \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Groves  
Wed 14-16, Fri 12-14
  - [Differential Geometry \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Fuchs  
Mon 12-14, Wed 10-12
  - [Numerical Methods for Partial Differential Equations \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 10-12, Thu 10-12
- Classes in Computer Science:
  - [Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by A. Karrenbauer  
Wed 14-16, Thu 14-16

- [Competitive Programming \(6 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by M. Bläser, K. Bringmann, C. Weidenbach  
Tue 16-18
- [Programmierung 2 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by S. Hack  
Tue 14-16, Fri 8:30-10
- [Systemarchitektur \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by J. Reineke  
Wed 8:30-10, Fri 12:30-2
- [Softwarepraktikum \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) given by S. Apel
- Classes in Mechatronics:
  - [Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mon 10-12

### • **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

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If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, November 2, 2020 at 14:15 via Zoom:

[https://cs-uni-saarland-de.zoom.us/j/91421766322?](https://cs-uni-saarland-de.zoom.us/j/91421766322?pwd=M25tWHAvbllweU40cG5JaDdmek1Mdz09)

[pwd=M25tWHAvbllweU40cG5JaDdmek1Mdz09](https://cs-uni-saarland-de.zoom.us/j/91421766322?pwd=M25tWHAvbllweU40cG5JaDdmek1Mdz09)

(If you cannot run it from your browser, use Chromium.)

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2020/2021

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Image Acquisition Methods \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter  
Fri 12-14

- [Geometric Modeling \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by R. Zayer  
Mon 12-14, Thu 14-16

- [Ultraschall \(Ultrasound Imaging\) \(4 CP\)](#)

Classroom lectures (2h) given by M. Fournelle  
Mon 16-18, Building E 2.6, Room E 11

- [Physikalische Akustik 2 \(4 CP\)](#)

Classroom lectures (2h) given by M. Spies  
Thu 8:30-10, Building E 3.1, Seminar Room

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert  
Mon 10-12, Fri 10-12

- [Advanced Image Analysis \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by P. Peter  
Tue 8:30-10

- [Probabilistic Graphical Models and their Applications \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele  
Wed 14-16, Fri 8:30-10

- **Classes on Image Synthesis:**  
(You need at least 9 graded CP from this category.)
  - [Computer Graphics \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Slusallek  
Mon 14-16, Thu 08:30-10
  - [Perception for Computer Graphics \(3 CP\)](#)  
Classroom lectures (2h) given by K. Myszkowski and A. Serrano  
Wed 10-12
- **Seminars:**  
(You need at least 8 graded CP from this category.)
  - [Deep Learning and Optimisation for Visual Computing \(8 CP\)](#)  
Seminar (2h) given by J. Tomasson, K. Schrader and J. Weickert  
Tue 16-18
  - [Light Field Representation Formats \(8 CP\)](#)  
Seminar (2h) given by T. Herfet
- **Classes in Image Related Areas in Computer Science and Other Disciplines:**  
(From this category you need 9 graded CP.)
  - [Digital Transmission & Signal Processing \(Telecommunications I\) \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet and K. Chelli  
Tue 12-14, Wed 08-10
  - [Multimedia Transport \(Future Media Internet\) \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet and P. Gil Pereira  
Tue 14-16, Wed 12-14
  - [Human Computer Interaction \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Steimle and P. Strohmeier  
Tue 10-12, Wed 14-16
  - [Neural Networks: Theory and Implementation \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Tue 14-16
  - [Elements of Machine Learning \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by I. Valera and J. Vreeken  
Thu 14-16
  - [AI Planning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann  
Tue 14-16, Wed 10-12
  - [Probabilistic Machine Learning \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by I. Valera  
Wed 16-18
  - Consider also specialised classes in computational linguistics.
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)



Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:

- [Interpolation and Approximation for Visual Computing \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Augustin  
Mon 16-18, Thu 12-14
- [Stochastics II \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by H. Zöllner  
Tue 8-10, Thu 8-10, Building E 2.4, Seminar Room 10
- [Computer Algebra and Groebner Bases \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by F. Schreyer  
Mon 10-12, Thu 10-12

- Classes in Computer Science:

- [Algorithms and Data Structures \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by K. Bringmann and M. Künemann  
Tue 10-12, Fri 10-12
- [GPU Programming \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by R. Membarth, M. Kenzel and P. Slusallek  
Tue 12-14, Thu 16-18
- [Software Engineering \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by S. Apel  
Mon 8:30-10, Tue 8:30-10
- [Programmierung 1 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by B. Finkbeiner  
Tue 14-16, Thu 10-12
- [Grundzüge von Algorithmen und Datenstrukturen \(6 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (2h) with tutorials (2h) given by R. Seidel  
Thu 12-14

- Classes in Mechatronics:

- [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by D. Klakow  
Mon 10-12, Mon 12-13

- Classes in Physics:

- [Elementare Einführung in die Physik I \(5 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by F. Mäüller  
Wed 10-12

- **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- The [International Office](#) of Saarland University offers a number of [foreign and German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

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If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, April 12, 2021 at 14:15 via Zoom:

<https://cs-uni-saarland-de.zoom.us/j/97403002160>

Passcode: 973018

(If you cannot run it from browser, use Chromium.)

All Visual Computing students and other interested people are welcome.

## List of Classes Offered in the Summer Semester 2021

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition and Geometric Foundations:**

(You need at least 4 CP from this category.)

- [Physikalische Akustik I \(3 CP\)](#)

Classroom lectures (2h) given by U. Rabe

Thu 8-10

- [Numerical Laboratory in Computerized Tomography \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by T. Schuster

Tue 14-16, Thu 14-16

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by J. Weickert

Tue 10-12, Fri 10-12

- [Image Compression \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Peter

Mon 12-14, Wed 14-16

- [High-Level Computer Vision \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by B. Schiele

Wed 10-12

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by P. Slusallek, K. Myszkowski and G. Singh

Mon 10-12, Thu 8-10

- **Seminars:**

(You need at least 8 graded CP from this category.)

- [Connections of Deep Learning and PDEs for Visual Computing \(8 CP\)](#)  
Seminar (2h) given by K. Schrader and J. Weickert  
Wed 16-18
- [Computer Vision and Machine Learning for Computer Graphics \(8 CP\)](#)  
Seminar (2h) given by C. Theobalt, M. Elgharib and V. Golyanik  
Thu 14-16
- [Rendering Techniques \(7 CP\)](#)  
Practical seminar given by S. Lemme, M. Kenzel, H. Devillers, A. PÃ©rard-Gayot and P. Slusallek
- [Seminar on Reproducing Kernels and Machine Learning \(8 CP\)](#)  
(only for students under the new study regulations)  
Seminar (2h) given by M. Hartz  
TBA
- [Game Development Technologies \(7 CP\)](#)  
Seminar (2h) given by J. Sprenger, N. Cheema, E. Herrmann, H. Du, L. Hell, A. Antakli, B. Duppe, M. Meiser, I. Vozniak, N. Lipp and P. Slusallek  
Tue 16-18

• **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by J. Hoffmann and J. KÃ¶hler  
Mon 16-18, Thu 16-18
- [Machine Learning \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by I. Valera  
Mon 14-16, Wed 16-18
- [Audio/Visual Communication and Networks \(Telecommunications II\) \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10
- [Topics in Algorithmic Data Analysis \(6 CP\)](#)  
Classroom lectures (2h) with assignments given by J. Vreeken  
Thu 10-12
- [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Fri 8-10
- Consider also specialised classes in computational linguistics.

• **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Numerical Algorithms for Visual Computing \(6 CP\)](#)  
Classroom lectures (3h) with tutorials (1h) given by M. Augustin

Tue 8-10, Thu 12-14

- [Markov Processes \(4 CP\)](#)

Classroom lectures (2h) with tutorials (1h) given by T. Nguyen  
Wed 12-14

- [Mathematical Statistics \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by H. ZÄhler  
Tue 10-12, Thu 10-12

- [Stochastik I \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by C. Bender  
Mon 14-16, Wed 8-10

- [Modelling with Partial Differential Equations \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 10-12, Thu 8-10

- Classes in Computer Science:

- [Optimization \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by A. Karrenbauer  
Wed 14-16, Thu 14-16

- [Embedded Systems \(9 CP\)](#)

Classroom lectures (4h) with tutorials (2h) given by M. Maggio  
Tue 14-16, Thu 10-12

- [Data Science \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by W. Maaß  
TBA

- [Space Informatics \(6 CP\)](#)

Classroom lectures (2h) with tutorials (2h) given by J. Fraire and H. Hermanns  
Thu 14-16

- [Geometric Algorithms with Limited Resources \(5 CP\)](#)

Classroom lectures (2h) with tutorials (1h) given by T. Gouleakis and S. Kisfaludi-Bak  
Tue 10-12

- [Programmierung 2 \(9 CP\)](#)

(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by S. Hack  
Tue 14-16, Fri 8-10

- [Systemarchitektur \(9 CP\)](#)

(only if you do not hold a Bachelor's degree in computer science)  
Classroom lectures (4h) with tutorials (2h) given by J. Reineke  
Wed 8-10, Fri 12-14

- [Softwarepraktikum \(9 CP\)](#)

(only if you do not hold a Bachelor's degree in computer science)  
Block course given by S. Apel

- Classes in Mechatronics:

- [Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Mon 10-12
- [Multisensorsignalverarbeitung \(4 CP\)](#)  
Classroom lectures (2h) with assignments given by A. SchÄ¼tze  
Mon 10-12
- Classes in Physics:
  - [Elementare EinfÄ¼rung in die Physik II \(4 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given F. MÄ¼ller  
Wed 10-12
  - [Physik fÄ¼r Ingenieure II \(4 CP\)](#)  
Classroom lectures (2h) with tutorials (1h) given by R. Seemann  
Mon 12-14

• **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- The [International Office](#) of Saarland University offers [German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings.

If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, October 18, 2021 at 14:15 via Zoom:

[https://cs-uni-saarland-de.zoom.us/j/97403002160?](https://cs-uni-saarland-de.zoom.us/j/97403002160?pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09)

[pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09](https://cs-uni-saarland-de.zoom.us/j/97403002160?pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09)

(If you cannot run it from your browser, try Chromium.)

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2021/2022

- **Classes from the Core Areas of Visual Computing:**

- **Classes on Image Acquisition (and Geometric Foundations in the old study regulations):**

- [Image Acquisition Methods \(6 CP\)](#)

Lectures (2h) with tutorials (2h) given by P. Peter  
Thu 10-12, Online

- [Ultraschall \(Ultrasound Imaging\) \(4 CP\)](#)

Lectures (2h) given by M. Fournelle  
Mon 16-18, E 2.6, Room E.12

- [Physikalische Akustik 2 \(4 CP\)](#)

Lectures (2h) given by M. Spies and U. Rabe  
Thu 8-10, E 3.1, Großer Seminarraum

- [Geometric Modeling \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by R. Zayer  
Mon 12-14, Thu 14-16, TBD  
(only if you are in the old study regulations; in the new regulations, it is in the category Image Synthesis)

- **Classes on Image Analysis:**

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by J. Weickert  
Wed 10-12, Fri 10-12, Online

- [Advanced Image Analysis \(6 CP\)](#)

Lectures (2h) with tutorials (2h) given by P. Peter  
Mon 14-16, Online

- **Classes on Image Synthesis:**

- [Computer Graphics \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by P. Slusallek  
Mon 10-12, Thu 12-14, TBD

- [Geometric Modeling \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by R. Zayer  
Mon 12-14, Thu 14-16, TBD

(only if you are in the new study regulations; in the old regulations, it is in the category Image Acquisition and Geometric Foundations)

◦ **Seminars:**

Students can apply to seminars here:

<https://seminars.cs.uni-saarland.de/seminars2122>

- [Milestones and Advances in Image Analysis](#)  
(8 CP for students under the old study regulations and 7 CP for students under the new study regulations)  
Seminar (2h) given by K. Schrader and J. Weickert  
Tue 16-18, Online
- [Ray Tracing and Global Illumination](#)  
(8 CP for students under the old study regulations and 7 CP for students under the new study regulations)  
Seminar (2h) given by P. Grittmann and P. Slusallek  
TBD
- **The following seminars are available only to students under the new study regulations:**
  - [Adaptive Human Machine Interfaces for Autonomous Systems \(7 CP\)](#)  
Seminar (2h) given by M. Feld, A. Goma, N. Kleer, M. Rekrut, G. Reyes, and J. Wolter  
Thu 16-18, Location TBD and Online
  - [Adversarial Reinforcement Learning \(7 CP\)](#)  
Seminar (2h) given by A. Singla and G. Radanovic  
TBD
  - [CAUSETHICAL Machine Learning \(7 CP\)](#)  
Seminar (2h) given by I. Valera, M. Rateike, P. Sanchez, and A. H. Karimi  
Tue 16-18, TBD
  - [Hybrid Learning and Reasoning \(7 CP\)](#)  
Seminar (2h) given by M. Klusch, A. Nonnengart, and P. Gupta  
Fri 14-16, Online
  - [Interactive Touch Surfaces \(7 CP\)](#)  
Block Seminar given by J. Steimle and N. Pourjafarian  
TBD
  - [Machine Learning for Natural Language Processing \(7 CP\)](#)  
Block Seminar given by D. Klakow  
TBD
  - [Neural Networks in AI Planning \(7 CP\)](#)  
Block Seminar given by J. Hoffmann  
TBD
  - [Pruning deep neural networks for Lottery Tickets \(7 CP\)](#)  
Block Seminar given by R. Burkholz  
TBD

- [SupRTwin: Sensing, Understanding, and Provisioning of Robotic Digital Twins \(7 CP\)](#)  
Seminar given by T. Schwartz, D. Porta, A. Luxenburger, J. Mohr, C. Jacob, A. Kanso, X. Xu, and K. Rekik  
TBD, Power4Production Hall at ZeMA (Eschberger Weg 46, 66121 Saarbrücken) and Online
- [Trustworthy Graph Neural Networks \(7 CP\)](#)  
Block Seminar given by A. Bojchevski  
TBD, Online

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

- [Digital Transmission & Signal Processing \(Telecommunications I\) \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, E 1.3, HS 001 and Online
- [Multimedia Transport \(Future Media Internet\) \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 10-12, Wed 12-14, E 1.3, HS 001 and Online
- [Human Computer Interaction \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by J. Steimle  
Tue 10-12, Wed 14-16, Online
- [Neural Networks: Theory and Implementation \(9 CP\)](#)  
Lectures (2h) with tutorials (2h) given by D. Klakow  
Tue 14-16, E 1.3, HS 002
- [Elements of Machine Learning \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by I. Valera and J. Vreeken  
Thu 16-18, E 2.2, HS 0.01 and Online
- [Reinforcement Learning \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by A. Singla, A. Ghosh, and R. Devidze  
TBD
- [AI Planning \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by J. Hoffmann, D. FiÅjer, D. Gnad, and D. HÅlller  
Tue 14-16, Wed 10-12, E 1.3, HS 003
- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:
  - [Stochastics II \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by C. Bender  
Mon 12-14, Thu 8-10, TBD
  - [Theorie und Numerik gewöhnlicher Differentialgleichungen \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 14-16, Thu 8-10, TBD

- [Functional Analysis I \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by M. Hartz  
Mon 14-16, Thu 12-14, TBD
- [Numerical Integration \(5 CP\)](#)  
Lectures (2h) with tutorials (1h) given by S. Eberle  
Wed 12-14, Online
- [Time series analysis \(5 CP\)](#)  
Lectures (2h) with tutorials (1h) given by H. ZÃ¶hle  
Thu 14-16, Online
- Classes in Computer Science:
  - [Algorithms and Data Structures \(9 CP\)](#)  
Block lecture given by K. Bringmann and R. Seidel  
Mon, Tue, Thu, Fri 9-17, Thu 9-12, Location TBD and Online
  - [Software Engineering \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by S. Apel  
Mon 8-10, Tue 12-14, Online
  - [Programmierung 1 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Lectures (4h) with tutorials (2h) given by G. Smolka  
Tue 14-16, Thu 10-12, E 2.2, HS 0.01 and Online
  - [GrundzÃ¼ge von Algorithmen und Datenstrukturen \(6 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Lectures (2h) with tutorials (2h) given by R. Seidel  
Thu 12-14, E 2.2, HS 0.01
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Lectures (2h) with tutorials (1h) given by D. Klakow  
Mon 10-12, Online
- Classes in Physics:
  - [Elementare EinfÃ¼hrung in die Physik I \(5 CP\)](#)  
Lectures (2h) with tutorials (2h) given by F. MÃ¼ller  
Wed 10-12, C 6.4, HS 0.10
  - [EinfÃ¼hrung in die Quanteninformationsverarbeitung \(5 CP\)](#)  
Lectures (2h) with tutorials (2h) given by F. Wilhelm-Mauch  
Mon 12-14, E 2.6, E04
- **Additional Classes:**  
(Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.

- [English as a Foreign Language for CS Students \(6 CP\)](#).  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- The [International Office](#) of Saarland University offers a number of [German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings.

If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Monday, April 11, 2022 at 14:15 via Zoom:

[https://cs-uni-saarland-de.zoom.us/j/97403002160?](https://cs-uni-saarland-de.zoom.us/j/97403002160?pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09)

[pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09](https://cs-uni-saarland-de.zoom.us/j/97403002160?pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09)

(If you cannot run it from your browser, try Chromium.)

All Visual Computing students and other interested people are welcome.

## List of Classes Offered in the Summer Semester 2022

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(From this category you need 53 CP with at least 35 graded CP.)

- **Classes on Image Acquisition (and Geometric Foundations in the old study regulations):**

(You need at least 4 CP from this category.)

- [Physikalische Akustik I \(3 CP\)](#)

Lectures (2h) given by U. Rabe and M. Spies

Thu 8-10, E 3.1, Seminar room

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this category.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by J. Weickert

Tue 10-12, Fri 10-12, Online

- [Image Compression \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by P. Peter

Tue 8-10, Fri 14-16, Online

- [High-Level Computer Vision \(6 CP\)](#)

Lectures (2h) with tutorials (2h) given by B. Schiele

Wed 10-12, E 1.4, Seminar room 0.24

- [Mathematical Morphology in Image Analysis \(6 CP\)](#)

Lectures (2h) with tutorials (2h) given by K. Schaefer and J. Weickert

Thu 12-14, Online

- [Model-driven Deep Learning Lab for Image Analysis \(6 CP\)](#)

Lectures (2h) with tutorials (2h) given by K. Schrader and J. Weickert

Wed 12-14, Online

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this category.)

- [Realistic Image Synthesis \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by P. Slusallek, K. Myszkowski, and G. Singh

Mon 16-18, Thu 8-10, E 1.3, Lecture Hall 1

◦ **Seminars:**

Students can apply to seminars here:

<https://seminars.cs.uni-saarland.de/seminars22>

- [Deep Learning for Visual Computing](#)  
(8 CP for students under the old study regulations and 7 CP for students under the new study regulations)  
Seminar (2h) given by P. Peter and P. Trampert  
Tue 16-18, Online
- [Algorithms for Realtime Raytracing](#)  
(8 CP for students under the old study regulations and 7 CP for students under the new study regulations)  
Project seminar given by A. Rath, A. Yazici, and P. Slusallek  
TBA
- [Computer Vision and Machine Learning for Computer Graphics](#)  
(8 CP for students under the old study regulations and 7 CP for students under the new study regulations)  
Seminar (2h) given by C. Theobalt, M. Habermann, and T. Leimkühler  
Thu 14-16, TBA
- [Virtual Reality Game Development using a Rock Climbing Treadmill](#)  
(8 CP for students under the old study regulations and 7 CP for students under the new study regulations)  
Seminar (2h) given by M. Altmeyer, F. Daiber, D. Degraen, and F. Kosmalla  
Mon 12-14, TBA

**The following seminars are available only to students under the new study regulations:**

- [Brain Computer Interaction \(7 CP\)](#)  
Project seminar given by M. Rekrut, M. Sharma, M. Nadig, and G. Reyes  
TBA, Online
- [Crowdsourcing High Quality Annotations and Experimental Data \(7 CP\)](#)  
Seminar (2h) given by M. Scholman  
Mon 10-12, Online
- [Data-driven Understanding of the Disinformation Epidemic \(7 CP\)](#)  
Seminar (2h) given by Y. Zhang  
TBA
- [Ethical AI - AI for ethics \(7 CP\)](#)  
Seminar (2h) given by C. Müller  
Mon 12-14, Online
- [Human-Centered Interface Design for Automated Cyber-Physical Systems \(7 CP\)](#)  
Seminar (2h) given by A. Hirsch, N. Knieriemen, F. Wiehr, and L. Flohr  
Wed 14-16, Online
- [Machine Learning for Social Signal Processing \(7 CP\)](#)  
Seminar (2h) given by P. Müller, H. Lindsay, C. Bhuvaneshwara, and F. Nunnari  
Tue 14-16, Online



- [Neuro-Symbolic Reinforcement Learning \(7 CP\)](#)  
Block Seminar given by A. Singla  
TBA
- [Psychological Theories for Intelligent and Interactive Systems \(7 CP\)](#)  
Seminar (2h) given by A. M. Feit and M. Langer  
Mon 14-16, TBA
- [Quantum Machine Learning \(7 CP\)](#)  
Seminar (2h) given by M. Klusch and A. Macaluso  
Tue 16-18, Online
- [Fourier Analysis \(7 CP\)](#)  
(Contact the instructors directly to enroll)  
Seminar (2h) given by A. Buchheit and D. Seibel  
TBA

• **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(From this category you need 9 graded CP.)

- [Artificial Intelligence \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by J. Hoffmann, D. FiÅer, D. HÅlller, and S. Saller  
Mon 16-18, Thu 16-18, E 2.2, Lecture Hall 1
- [Machine Learning \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by M. Fritz  
Mon 16-18, Wed 16-18, E 1.3, Lecture Hall 2
- [Audio-Visual Communication and Networks \(Telecommunications II\) \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, C 6.3, Seminar room 9.05
- [Topics in Algorithmic Data Analysis \(6 CP\)](#)  
Lectures (2h) with assignments given by J. Vreeken  
Thu 10-12, E 9.1, Lecture Hall
- [Interactive Systems \(6 CP\)](#)  
Lectures (4h) with tutorials (2h) given by M. Schmitz  
Thu 14-16, E 1.3, Lecture Hall 1
- [Text-to-speech Synthesis \(3 CP\)](#)  
Lectures (2h) given by B. MÅllbius  
Thu 10-12, E 1.3, Lecture Hall 3
- [Data Science \(6 CP\)](#)  
Lectures (2h) with projects given by W. MaaÅŸ  
Fri 10-12, B 4.1, Seminar room 0.07
- [Statistical Learning \(5 CP\)](#)  
Lectures (2h) with tutorials (1h) given by C. Bender  
Thu 12-14, E 2.4, Seminar room 10
- Consider also specialised classes in computational linguistics.

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed. Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:

- [Partial Differential Equations I \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by D. Nilsson  
Mon 12-14, Wed 14-16, E 2.4, Seminar room 4
- [Stochastik I \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by H. Z  hle  
Tue 8-10, Thu 10-12, TBA
- [Continuous Optimization \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by T. Schuster  
Tue 14-16, Thu 14-16, E 2.4, Seminar room 6
- [Convex Analysis \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by P. Swoboda  
Wed 8-10, Fri 8-10, E 1.4, Seminar room 0.24
- [Numerical Methods for Partial Differential Equations \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 10-12, Thu 10-12, E 2.5, Zeichensaal
- [Nonlinear Inverse Problems \(3 CP\)](#)  
Lectures (2h) given by T. Schuster  
Thu 8-10, E 2.4, Seminar room 6
- [Iterative Methods \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by R. Schulz  
Mon 14-16, E 2.4, Seminar room 6

- Classes in Computer Science:

- [Optimization for Machine Learning \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by S. Stich  
Mon 14-16, E 9.1, Lecture Hall
- [Optimization \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by A. Karrenbauer  
Wed 14-16, Thu 14-16, E 1.4, Seminar room 0.24
- [Embedded Systems \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by M. Maggio  
Tue 14-16, Thu 10-12, E 1.3, Lecture Hall 2
- [Competitive Programming \(6 CP\)](#)  
Lectures (2h) with assignments given by M. Bl  ser, K. Bringmann, M. Bromberger, and C. Weidenbach  
Thu 16-18, E 1.3, Lecture Hall 2
- [Programmierung 2 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)

Lectures (4h) with tutorials (2h) given by S. Hack  
Tue 14-16, Fri 8-10, E 2.2, Lecture Hall 0.01

- [Systemarchitektur \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Lectures (4h) with tutorials (2h) given by J. Reineke  
Wed 8-10, Fri 12-14, Online
- [Softwarepraktikum \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Block course given by S. Apel  
TBA
- Classes in Mechatronics:
  - [Multisensorsignalverarbeitung \(4 CP\)](#)  
Lectures (2h) with assignments given by A. SchÄ¼tze  
Mon 10-12, A 5.1, Lecture Hall 2 (-1.22)
- Classes in Physics:
  - [Elementare EinfÄ¼rung in die Physik II \(4 CP\)](#)  
Lectures (2h) with tutorials (1h) given F. MÄ¼ller  
Wed 10-12, C 6.4, Lecture Hall 0.10
  - [Physik fÄ¼r Ingenieure II \(4 CP\)](#)  
Lectures (2h) with tutorials (1h) given by R. Seemann  
Mon 12-14, C 6.4, Lecture Hall 0.10

### • **Additional Classes:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)
- [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- The [International Office](#) of Saarland University offers [German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings.

If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim](#)

[Weickert.](#)

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- **Information Meeting on Visual Computing**

Monday, October 24, 2022 at 14:15 via Zoom:

[https://cs-uni-saarland-de.zoom.us/j/97403002160?](https://cs-uni-saarland-de.zoom.us/j/97403002160?pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09)

[pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09](https://cs-uni-saarland-de.zoom.us/j/97403002160?pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09)

(If you cannot run it from your browser, try Chromium.)

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Winter Semester 2022/2023

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters.

- **Classes from the Core Areas of Visual Computing:**

(In the 2020 regulations, you need 39 graded CP from this category. In the 2006 regulations, you need 45 CP with at least 27 CP graded.)

- **Classes on Image Acquisition (and Geometric Foundations in the old study regulations):**

(You need at least 3 graded CP from this subcategory in the 2020 regulations and at least 4 graded CP in the 2006 regulations.)

- [Image Acquisition Methods \(6 CP\)](#)

Lectures (2h) with tutorials (2h) given by P. Peter  
Thu 10-12, Online

- [Ultrasound Imaging](#)

(3 CP for students under the 2020 regulations and 4 CP for students under the 2006 regulations)

Lectures (2h) given by M. Fournelle  
Mon 16-18, E 2.6, Room E.12

- [Physikalische Akustik 2](#)

(3 CP for students under the 2020 regulations and 4 CP for students under the 2006 regulations)

Lectures (2h) given by M. Spies and U. Rabe  
Thu 8-10, Online

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this subcategory.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by J. Weickert  
Wed 10-12, Fri 12-14, Online

- [Advanced Image Analysis \(6 CP\)](#)

Lectures (2h) with tutorials (2h) given by P. Peter  
Tue 16-18, Online

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this subcategory.)

- [Computer Graphics \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by P. Slusallek  
Mon 10-12, Thu 8-10, E 1.3, HS 001 + Online

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(You need 9 graded CP from this category.)

- [Digital Transmission & Signal Processing \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, E 1.3, HS 001 and Online
- [Multimedia Transport \(Future Media Internet\) \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 10-12, Wed 12-14, E 1.3, HS 001 and Online
- [Human Computer Interaction \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by M. Schmitz  
Mon 12-14, Wed 14-16, E 1.3, HS 002
- [Neural Networks: Theory and Implementation \(9 CP\)](#)  
Lectures (2h) with tutorials (2h) and project (2h) given by D. Klakow  
Tue 14-16, E 2.5, HS 001
- [Elements of Machine Learning \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by J. Vreeken and A. Bojchevski  
Thu 16-18, E 2.2, HS 0.01
- [Reinforcement Learning \(7 CP\)](#)  
Tutorials (2h) + Project given by A. Singla, G. Radanovic, G. Tzannetos, and V. Padurean  
Tue 10-12, Online
- [AI Planning \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by J. Hoffmann, D. FiÅjer, and D. HÅ¶ller  
Tue 12-14, Wed 10-12, E 1.3, HS 003
- [Quantum Artificial Intelligence \(3 CP\)](#)  
Lectures (2h) given by M. Klusch, A. Macaluso, and P. Slusallek  
Tue 16-18, E 1.3, HS 003
- [Machine Learning for Inverse Problems \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by T. Schuster  
Tue 12-14, E 2.4, HS IV, Thu 12-24, E 2.4, SR 6
- Consider also specialised classes in computational linguistics.

- **Seminars from the Visual Computing Core Area (for all VC Students):**

(You need one seminar in your study period.)

Students can apply to seminars here:

<https://seminars.cs.uni-saarland.de/seminars2223>

- [Inpainting in Image Analysis](#)  
(7 CP for students under the 2020 regulations and 8 CP for students under the 2006 regulations)  
Seminar (2h) given by K. Schaefer and J. Weickert  
Thu 16-18, Online

- [Ray Tracing and Global Illumination](#)  
(7 CP for students under the 2020 regulations and 8 CP for students under the 2006 regulations)  
Seminar (2h) given by P. Grittmann, Q. Hua, and P. Slusallek  
TBD
- [3D Object Representation and Reconstruction with Machine Learning](#)  
(7 CP for students under the 2020 regulations and 8 CP for students under the 2006 regulations)  
Seminar (2h) given by E. Ilg  
TBD
- **Seminars from Image Related Fields (only for VC Students in the 2020 Regulations):**  
(You need one seminar in your study period.)  
Students can apply to seminars here:  
<https://seminars.cs.uni-saarland.de/seminars2223>
  - [Deep Generative Diffusion Models \(7 CP\)](#)  
Block Seminar given by G. Gro&szligmann and V. Wolf  
March 6 and 7, 2023
  - [AI for HCI \(7 CP\)](#)  
Seminar (2h) given by A. M. Feit  
Thu 14-16, Location TBD
  - [Machine Learning for Natural Language Processing and beyond \(7 CP\)](#)  
Block Seminar given by D. Klakow  
TBD
  - [Deep Reinforcement Learning \(7 CP\)](#)  
Seminar (2h) given by T. P. Gros, J. Gro&Auml;ÿ, and V. Wolf  
Wed 10-12, Location TBD
  - [HyLEAR: Hybrid Learning and Reasoning \(7 CP\)](#)  
Seminar (2h) given by M. Klusch, A. Nonnengart, C. M&uuml;ller, A. Meyer-Vitali  
Wed 10-12, D 3.2, Room "Leibniz"
  - [Interactive Robotics \(7 CP\)](#)  
Seminar (2h) given by J. Steimle and M. Muehlhaus  
TBD
  - [Learning from Limited Data in NLP \(7 CP\)](#)  
Seminar (2h) given M. Mosbach and D. Zhu  
Mon 14-16, B 3.1, SR 1.15
  - [Machine Learning meets Communication Networks \(7 CP\)](#)  
Seminar (2h) given T. Herfet  
TBD
  - [Pruning Deep Neural Networks for Lottery Tickets \(7 CP\)](#)  
Seminar (2h) given R. Burkholz  
TBD
  - [Speech-based Adaptation of Personalized User Interfaces \(7 CP\)](#)  
Seminar (2h) given M. Feld, A. Gomaa, and J. Wolter



Tue 10-12, online

- [Topics in Optimization for Machine Learning \(7 CP\)](#)

Seminar (2h) given S. Stich

Mon 16-18, Location TBD

- [Topics in Out-of-Distribution \(OOD\) Generalization \(7 CP\)](#)

Seminar (2h) given K. Muandet

TBD

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**

(From this category you need 18 CP with at least 9 graded CP.)

Depending on your background, not all selections may be allowed.

Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:

- [Interpolation and Approximation for Visual Computing \(6 CP\)](#)

Lectures (3h) with tutorials (1h) given by V. Chizhov

Mon 14-16, Thu 14-16, E 1.3, HS 001

- [Stochastics II \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by H. Z&auml;umhlh

Tue 10-12, Thu 10-12, E 2.4, SR 6

- [Functional Analysis I \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by R. Speicher

Mon 10-12, Wed 10-12, E 2.4, HS IV

- [Einf&uuml;hrung in die Variationsrechnung \(5 CP\)](#)

Lectures (2h) with tutorials (1h) given by M. Bildhauer

Mon 14-16, E 2.4, SR 10

- [Minimalfl&auml;chen \(5 CP\)](#)

Lectures (2h) with tutorials (1h) given by M. Fuchs

Fri 10-12, E 2.4, SR 10

- [Einf&uuml;hrung in die Numerik \(9 CP\)](#)

(only if you do not hold a Bachelor's degree in mathematics)

Lectures (4h) with tutorials (2h) given by S. Rjasanow

Tue 8-10, Thu 14-16, E 2.5, HS 0.01

- [Focus Semester on Quantum Information \(5/9 CP\)](#)

- Classes in Computer Science:

- [Algorithms and Data Structures \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by R. Seidel

Mon 16-18, Wed 16-18, E 1.3, HS 002

- [Software Engineering \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by S. Apel

Mon 8-10, Tue 12-14, E 2.2, HS 001

- [Approximation Algorithms \(6CP\)](#)

Lectures (2h) with tutorials (2h) given by J. Spoerhase

Thu 14-16, E 1.4, Room 024

- [Randomized Algorithms and Probabilistic Analysis of Algorithms \(5 CP\)](#)

Lectures (2h) with tutorials (2h) given by P. Wellnitz

Wed 14-16, E 1.4, Room 023

- [Generic and Generative Software Design \(6 CP\)](#)

Lectures (4h) given by S. Apel and F. Sattler

Mon 12-14, Wed 12-14, E 1.3, HS 003 and Online

- [Programming 1 \(9 CP\)](#)

(only if you do not hold a Bachelor's degree in computer science)

Lectures (4h) with tutorials (2h) given by H. Hermanns

Tue 14-16, Thu 10-12, E 2.2, HS 0.01

- [Grundzüge von Algorithmen und Datenstrukturen \(6 CP\)](#)

(only if you do not hold a Bachelor's degree in computer science)

Lectures (2h) with tutorials (2h) given by K. Bringmann

Thu 12-14, E 2.2, HS 0.01

- Classes in Mechatronics:

- [Grundlagen der Signalverarbeitung \(5 CP\)](#)

Lectures (2h) with tutorials (1h) given by D. Klakow

Thu 14-16, A 5.1, HS 1.03

- Classes in Physics:

- [Elementare Einführung in die Physik I \(5 CP\)](#)

Lectures (2h) with tutorials (2h) given by F. Mäüller

Wed 10-12, C 6.4, HS 0.10

- [Introduction to Quantum Information Processing \(5 CP\)](#)

Lectures (2h) with tutorials (2h) given by F. Wilhelm-Mauch

Mon 12-14, Fri 12-14, E 2.6, E04

- **Freely Selectable Modules:**

(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)

- Work as a tutor (4 CP)

- [German as a Foreign Language for CS Students \(6 CP\)](#)

Lectures (4h) offered by the Max Planck Institute for Computer Science.

- [English as a Foreign Language for CS Students \(6 CP\)](#)

Lectures (4h) offered by the Max Planck Institute for Computer Science.


- The [International Office](#) of Saarland University offers a number of [German language courses](#)

.

- Classes on other foreign languages are offered by the [Language Center](#).

- Any of the classes of the first three categories.

- Classes in humanities (cognitive science, etc.) after [approval in advance](#).



A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).

The [campus map](#) may help you to localise the individual buildings.

If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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- **Information Meeting on Visual Computing**

Tuesday, April 12, 2023 at 14:15 via Zoom:

[https://cs-uni-saarland-de.zoom.us/j/97403002160?](https://cs-uni-saarland-de.zoom.us/j/97403002160?pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09)

[pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09](https://cs-uni-saarland-de.zoom.us/j/97403002160?pwd=TK4rOG5PeUg2N2NNZkpXRTcvMU56dz09)

(If you cannot run it from your browser, try Chromium.)

All Visual Computing students and other interested people are welcome.

## Preliminary List of Classes Offered in the Summer Semester 2023

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters. If not stated otherwise, they refer to the current 2020 study regulations.

- **Classes from the Core Areas of Visual Computing:**

(In the 2020 regulations, you need 39 graded CP from this category.)

- **Classes on Image Acquisition (and Geometric Foundations in the old study regulations):**

(You need at least 3 graded CP from this subcategory in the 2020 regulations and at least 4 graded CP in the 2006 regulations.)

- [Physikalische Akustik I](#)

(3 CP for students under the 2020 regulations and 4 CP for students under the 2006 regulations)

Lectures (2h) given by U. Rabe and M. Spies

Thu 8-10, E 3.1, Seminar Room

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this subcategory.)

- [Image Processing and Computer Vision \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by P. Peter

Tue 10-12, Fri 10-12, E 2.2, Lecture Hall 1 and Online

- [Image Compression \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by P. Peter

Mon 12-14, Wed 12-14, Online

- [High-Level Computer Vision \(6 CP\)](#)

Lectures (2h) with tutorials (2h) given by B. Schiele

Wed 10-12, E 1.4, Seminar Room 0.24

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this subcategory.)

- [Realistic Image Synthesis \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by P. Slusallek, K. Myszkowski, and G. Singh

Mon 10-12, Thu 8-10, E 1.3, Lecture Hall 1

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(You need 9 graded CP from this category.)

- [Machine Learning \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by I. Valera  
Mon 14-16, E 2.5, Lecture Hall 1 and Thu 12-14, E 2.2, Lecture Hall 1
- [Topics in Algorithmic Data Analysis \(6 CP\)](#)  
Lectures (2h) with assignments given by J. Vreeken  
Thu 10-12, E 9.1, Room 0.005
- [Interactive Systems \(6 CP\)](#)  
Lectures (4h) with tutorials (2h) given by A. Krger  
Thu 14-16, E 1.3, Lecture Hall 2
- [Data Science \(6 CP\)](#)  
Lectures (2h) with projects given by W. Maaß  
Fri 14-16, B 4.1, Seminar Room 0.07
- [Statistical Natural Language Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Wed 14-16, E 1.3 Lecture Hall 1
- Consider also specialised classes in computational linguistics.
- **Seminars from the Visual Computing Core Area (for all VC Students):**  
(You need one seminar in your study period.)  
Students can apply to seminars here:  
<https://seminars.cs.uni-saarland.de/sose23seminars>
  - [Probabilistic Diffusion: Theory and Applications](#)  
(7 CP for students under the 2020 regulations and 8 CP for students under the 2006 regulations)  
Seminar (2h) given by K. Schrader, K. Schaefer and J. Weickert  
Thu 14-16, E 1.7, Room 4.10
  - [Computer Vision and Machine Learning for Computer Graphics](#)  
(7 CP for students under the 2020 regulations and 8 CP for students under the 2006 regulations)  
Seminar (2h) given by C. Theobalt, V. Golyanik, and M. Elgharib  
Thu 14-16, E 1.5, Room 029
  - [Photorealistic 3D Reconstruction with Deep Learning](#)  
(7 CP for students under the 2020 regulations and 8 CP for students under the 2006 regulations)  
Seminar (2h) given by E. Ilg  
Thu 14-16, TBD
- **Seminars from Image Related Fields (only for VC Students in the 2020 Regulations):**  
(You need one seminar in your study period.)  
Students can apply to seminars here:  
<https://seminars.cs.uni-saarland.de/sose23seminars>
  - [Accountable AI through the Lens of Causality \(7 CP\)](#)  
Seminar (2h) given by G. Radanovic, S. Triantafyllou  
Thu 10-12, TBD
  - [Machine Learning for Natural Language Processing \(7 CP\)](#)  
Block Seminar (2h) given by D. Klakow

Fall 2023

- [Data-driven Understanding of the Disinformation Epidemic \(DUDE\) \(7 CP\)](#)  
Seminar (2h) given by Y. Zhang  
Thu 14-16, TBD
- [Do we really need overparameterization in deep learning? \(7 CP\)](#)  
Seminar given by R. Burkholz  
TBD
- [Foundations of Machine Learning \(7 CP\)](#)  
Seminar given by Y. Jiang, K. Mehlhorn, A. Polak, R. Sharma, H. Simon and S. Srinivas  
Wed 16-18, E 1.4, Room 024
- [Getting Hands-On with Wearable Robotics for Augmenting Human Capabilities \(7 CP\)](#)  
Seminar given by M. Mählhaus, A. Saberpour, A. Otaran, J. Steimle  
TBD
- [Hybrid Learning and Reasoning \(7 CP\)](#)  
Seminar (2h) given by M. Klusch, A. Meyer-Vitali and A. Nonnengart  
Wed 10-12, D 3.2, Room "Turing 1" or Online
- [Machine Learning for Language and Vision \(7 CP\)](#)  
Seminar (2h) given by X. Hong, R. Feng and V. Demberg  
Tue 12-14, TBD
- [Opportunities and Risks of Large Language Models and Foundation Models \(7 CP\)](#)  
Seminar (2h) given by M. Fritz  
TBD
- [Simulating Reality for Boosting AI: Application of 3D Synthetic Data in Object Detection \(7 CP\)](#)  
Seminar (2h) given A. Krüger and M. Moniri  
TBD
- [SupRTwin: Sensing, Understanding, and Provisioning of Real-Time Digital Twins \(7 CP\)](#)  
Seminar (2h) given T. Schwartz, S. Knoch, A. Luxemburger and A. Krüger  
TBD, Power4Production Hall at ZeMA (Eschberger Weg 46, 66121 Saarbrücken) and Online
- [Through the eyes of the user: Seminar on eye tracking for intelligent interfaces \(7 CP\)](#)  
Seminar (2h) given A. M. Feit  
TBD
- [What do language models really understand? \(7 CP\)](#)  
Seminar (2h) given S. Schuster and V. Demberg  
TBD
- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed.  
Please make sure that the lectures you attend do extend your knowledge,  
and do not hesitate to [consult us](#) in case of doubts.
  - Classes in Mathematics:

- [Numerical Algorithms for Visual Computing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by V. Chizhov  
Tue 14-16, Fri 14-16, Online
- [Continuous Optimisation \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Ochs  
Tue 12-14, Thu 12-14, E1.3, Lecture Hall 3
- [Convex Analysis and Optimization \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by P. Ochs  
Tue 8-10, Thu 8-10, E 1.3, Lecture Hall 3
- [High Dimensional Analysis: Random Matrices and Machine Learning \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by R. Speicher  
Mon 10-12, Wed 10-12, E 2.4, Lecture Hall 4
- [Mathematical Statistics \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by H. Zühlke  
Mon 8-10, Wed 8-10, E 2.4, Seminar Room 6
- [Stochastic Modeling with Markov Chains \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by T. Nguyen  
Wed 14-16, E 2.4, Lecture Hall 4
- [Dynamical Systems \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by D. Hill  
Wed 12-14, Fri 12-14, E 2.4, Seminar Room 10
- [Theorie und Numerik gewöhnlicher Differentialgleichungen \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 10-12, Thu 10-12, E 1.1
- [Elementare Differentialgeometrie \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by M. Fuchs  
Wed 12-14, Fri 10-12, E 2.4, Seminar Room 6
- [Elementarkurs partielle Differentialgleichungen \(5 CP\)](#)  
Lectures (2h) with tutorials (2h) given by M. Bildhauer  
Tue 8-10, E 2.4, Lecture Hall 4
- [Stochastik I \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in Mathematics)  
Lectures (4h) with tutorials (2h) given by C. Bender  
Tue 12-14, Thu 10-12, E 2.4, Seminar Room 6
- Classes in Computer Science:
  - [Optimization for Machine Learning \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by S. Stich  
Mon 14-16, E 9.1, Room 0.05 and Online
  - [Embedded Systems \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by M. Maggio  
Tue 16-18, Thu 10-12, E 1.3, Lecture Hall 2



- [Distributed Systems \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by D. Garg  
Mon 12-14, Wed 10-12, E 1.5, Room 0.29
- [Distributed Graph Algorithms \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by S. Brandt  
Mon 10-12, E 9.1, Room 0.05
- [Parametrized Algorithms \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by D. Marx  
Tue 10-12, E 1.4, Room 023
- [Programming 2 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Lectures (4h) with tutorials (2h) given by J. Hoffmann  
Tue 14-16, Fri 8-10, E 2.2, Lecture Hall 1
- [System Architecture \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Lectures (4h) with tutorials (2h) given by J. Reineke  
Wed 8-10, Fri 12-14, E 2.2, Lecture Hall 1
- [Software Engineering Lab \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Block course given by S. Apel  
(September 4 - October 20)
- Classes in Systems Engineering:
  - [Digital Signal Processing \(6 CP\)](#)  
Classroom lectures (2h) with tutorials (2h) given by D. Klakow  
Mon 10-12, A 5.1, Lecture Hall -1.03
  - [Multisensorsignalverarbeitung \(4 CP\)](#)  
Classroom lectures (2h) with assignments given by A. SchÄ¼tze  
Mon 10-12, A 5.1, Lecture Hall -1.22 and Online
- Classes in Physics:
  - [Elementare EinfÄ¼hrung in die Physik II \(4 CP\)](#)  
Lectures (2h) with tutorials (1h) given F. MÄ¼ller  
Wed 10-12, C 6.4, Lecture Hall 0.10
  - [Physik fÄ¼r Ingenieure II \(4 CP\)](#)  
Lectures (2h) with tutorials (1h) given by R. Seemann  
Mon 12-14, C 6.4, Lecture Hall 0.10 and Online
- **Freely Selectable Modules:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.

- [English as a Foreign Language for CS Students \(6 CP\)](#).  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
- The [International Office](#) of Saarland University offers a number of [German language courses](#).
- Classes on other foreign languages are offered by the [Language Center](#).
- Research Immersion Lab (6 CP, only in the 2020 regulations)
- Any of the classes of the first three categories.
- Classes in humanities (cognitive science, etc.) after [approval in advance](#).
- internship (6 CP, only in the 2020 regulations) after [approval in advance](#).

The [campus map](#) may help you to localise the individual buildings.

If you spot some errors or have proposals for adding additional classes to this list, please contact [Joachim Weickert](#).

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## Preliminary List of Classes Offered in the Winter Semester 2023/2024

The number of required credit points (CP) at the beginning of each category refers to the entire study period of four semesters in the 2020 study regulations.

- **Classes from the Core Areas of Visual Computing:**

(You need 39 graded CP from this category.)

- **Classes on Image Acquisition (and Geometric Foundations in the old study regulations):**

(You need at least 3 graded CP from this subcategory.)

- [Image Acquisition Methods \(6 CP\)](#)

Lectures (2h) with tutorials (2h) given by P. Peter  
Tue 16-18, E 1.3, HS001

- [Ultrasound Imaging \(3 CP\)](#)

Lectures (2h) given by M. Fournelle  
Mon 16-18, E 2.6, Room E.12

- [Physikalische Akustik 2 \(3 CP\)](#)

Lectures (2h) given by M. Spies and U. Rabe  
Thu 8-10, E 3.1, Seminar Room

- **Classes on Image Analysis:**

(You need at least 9 graded CP from this subcategory.)

- [Differential Equations in Image Processing and Computer Vision \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by P. Peter  
Tue 8-10, Fri 14-16, E 1.3, HS 001 + Online

- [Mathematical Morphology in Image Analysis \(6 CP\)](#)

Lectures (2h) with tutorials (2h) given by K. Schaefer and J. Weickert  
Thu 14-16, E 1.3, HS 003

- [3D Computer Vision \(9 CP\)](#)

Lectures (2h) with tutorials (2h) and project given by E. Ilg  
Mon 8-10, Fri 8-10, E 1.3, HS 003

- **Classes on Image Synthesis:**

(You need at least 9 graded CP from this subcategory.)

- [Computer Graphics \(9 CP\)](#)

Lectures (4h) with tutorials (2h) given by P. Slusallek  
Mon 10-12, Thu 8-10, E 1.3, HS 001

- [Advanced Topics in Neural Rendering and Reconstruction \(3 CP\)](#)

Lectures (2h) given by C. Theobalt, M. Elgharib, V. Golyanik, T. Leimkuhler and M. Habermann  
Wed 14-16, E 1.3, HS 003

- **Classes in Image Related Areas in Computer Science and Other Disciplines:**

(You need 9 graded CP from this category.)

- [Artificial Intelligence \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by J. Hoffmann  
Tue 10-12, Fri 14-16, E 2.2, HS 001
- [Audio/Visual Communication and Networks \(Telecommunications II\) \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 10-12, Wed 12-14, E 1.3, HS 001 + Online
- [Digital Transmission & Signal Processing \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by T. Herfet  
Tue 12-14, Wed 8-10, E 1.3, HS 001 + Online
- [Elements of Machine Learning \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by J. Vreeken and K. Muandet  
Thu 16-18, E 2.2, HS 0.01
- [Elements of Data Science and Artificial Intelligence \(9 CP\)](#)  
Classroom lectures (4h) with tutorials (2h) given by V. Demberg, J. Hoffmann, T. KlÄ¶szligner, T. Koebe, B. Schiele, and I. Weber  
Mon 10-12, Thu 12-14, E 1.3, HS002
- [Games in Machine Learning \(6 CP\)](#)  
Lectures (2h) given by T. Chavdarova and S. Stich  
Tue 14-16, E 9.1, Room 0.05
- [Human Computer Interaction \(9 CP\)](#)  
Lectures (4h) with tutorials (2h) given by M. Schmitz  
Tue 14-16, Wed 14-16, E 1.3, HS 002
- [Neural Networks: Theory and Implementation \(6 CP\)](#)  
Lectures (2h) with tutorials (2h) given by D. Klakow  
Tue 14-16, E 2.5, HS 001
- [Reinforcement Learning \(7 CP\)](#)  
Lectures (2h) with tutorials (2h) given by V. Wolf  
Mon 14-16, E 1.3, HS 002
- [Quantum Artificial Intelligence \(3 CP\)](#)  
Lectures (2h) given by M. Klusch and A. Macaluso  
Fri 10-12, E 1.3, HS 002
- Consider also specialised classes in computational linguistics.

- **Seminars from the Visual Computing Core Area or Image Related Fields:**

(You need one seminar in your study period.)

Students can apply to seminars here:

<https://seminars.cs.uni-saarland.de/seminars2324>

- [Interpolation and Approximation Methods for Visual Computing Algorithms \(7 CP\)](#)  
Seminar (2h) given by M. Ertel and J. Weickert  
Thu 16-18, Online

- [Monte Carlo Ray Tracing \(7 CP\)](#)  
Seminar (2h) given by P. Slusallek, Q. Hua, and P. Grittmann  
Tue 17-18
- [Advanced Topics in Diffusion Modeling - From Theory to Implementation \(7 CP\)](#)  
Seminar (2h) given by G. Gro&szligmann and V. Wolf  
Fri 14-16, E 1.1, Room 1.06
- [Advances in AI for Autonomous Driving \(7 CP\)](#)  
Seminar (2h) given by M. Klusch, A. Nonnengart, A. Meyer-Vitali and C. M&uuml;ller  
Tue 16-18, D 3.2, Room "Turing 2"
- [Machine Learning for Natural Language Processing \(7 CP\)](#)  
Block Seminar given by D. Klakow  
Spring 2024
- [Bridging Language in Machines with Language in the Brain \(7 CP\)](#)  
Seminar (2h) given by M. Toneva
- [Engineering of Interactive Systems with Generative AI \(7 CP\)](#)  
Seminar (2h) given by M. Muehlhaus, A. Saberpour, and J. Steimle
- [Eye tracking: experimental investigations in language comprehension and machine learning approaches to data analysis \(7 CP\)](#)  
Seminar (2h) given by I. Å krjanec and M. Ryzhova  
Fri 12-14
- [Eye tracking for intelligent systems - a practical research seminar \(7 CP\)](#)  
Block Seminar given A. M. Feit, M. Feld, M. Barz, and A. Gomaa  
March 2024
- [Individual differences in language processing \(7 CP\)](#)  
Seminar (2h) given J. Loy and A. Mayn  
TBD
- [Pruning Deep Neural Networks for Lottery Tickets \(7 CP\)](#)  
Seminar (2h) given R. Burkholz  
TBD
- [Quantum Computer Vision and Machine Learning \(7 CP\)](#)  
Seminar (2h) given V. Golyanik  
Thu 14-16, E 1.5, Room 630
- [Reinforcement Learning with Large Language Models \(7 CP\)](#)  
Seminar (2h) given A. Singla and G. Radanovic  
TBD
- [Systems for Large \(Language\) Models \(7 CP\)](#)  
Seminar (2h) given K. Gummadi, L. Bindschaedler, V. Nanda, and T. Speicher  
TBD

- **Supplementary Classes (to Fill Your Personal Gaps of Knowledge):**  
(From this category you need 18 CP with at least 9 graded CP.)  
Depending on your background, not all selections may be allowed.

Please make sure that the lectures you attend do extend your knowledge, and do not hesitate to [consult us](#) in case of doubts.

- Classes in Mathematics:

- [Interpolation and Approximation for Visual Computing \(6 CP\)](#)

- Lectures (3h) with tutorials (1h) given by V. Chizhov  
Mon 14-16, Thu 14-16, E 1.3, HS 001

- [Non-smooth Analysis and Optimization in Data Science \(9 CP\)](#)

- Lectures (4h) with tutorials (2h) given by P. Ochs  
Tue 10-12, Thu 10-12, E 1.3, HS 003

- [Inverse Problems \(9 CP\)](#)

- Lectures (4h) with tutorials (2h) given by T. Schuster  
Wed 14-16, Thu 8-10, E 2.4, HS IV

- [Stochastics II \(9 CP\)](#)

- Lectures (4h) with tutorials (2h) given by C. Bender and T. Nguyen  
Tue 8-10, Thu 12-14, E 2.4, HS IV

- [Functional Analysis I \(9 CP\)](#)

- Lectures (4h) with tutorials (2h) given by A. Dayan  
Tue 14-16, Thu 14-16, E 2.4, HS IV

- [Mathematical Foundations of Quantum Information \(9 CP\)](#)

- Lectures (4h) with tutorials (2h) given by M. Weber  
Mon 14-16, Thu 10-12, E 2.5, HS II

- [Modellieren mit partiellen Differentialgleichungen \(9 CP\)](#)

- Lectures (4h) with tutorials (2h) given by S. Rjasanow  
Tue 12-14, Thu 10-12, E 2.4, HS IV

- [Einführung in die Numerik \(9 CP\)](#)

- (only if you do not hold a Bachelor's degree in mathematics)  
Lectures (4h) with tutorials (2h) given by T. Schuster  
Tue 8-10, Thu 12-14, E 2.5, HS I

- Classes in Computer Science:

- [Algorithms and Data Structures \(9 CP\)](#)

- Block lecture given by K. Bringmann and P. Wellnitz  
March 2024, E 1.3, HS 003

- [Hands-On Dependability \(6 CP\)](#)

- Classroom lectures (2h) with tutorials (2h) given by A. Schmidt  
Tue 14-16, E 1.3 HS003

- [Software Engineering \(9 CP\)](#)

- Lectures (4h) with tutorials (2h) given by S. Apel  
Mon 8-10, Tue 12-14, Online

- [Space Informatics \(6 CP\)](#)

- Classroom lectures (2h) with tutorials (2h) given by J. Fraire, H. Hermanns, and A. Schmidt  
Thu 12-14, E 1.3 HS001

- [Sublinear Algorithms \(5CP\)](#)  
Lectures (2h) with tutorials (2h) given by K. Bringmann and N. Varma  
Tue 16-18, E 1.4, Room 024
- [Programming 1 \(9 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Lectures (4h) with tutorials (2h) given by S. Hack  
Tue 14-16, Thu 10-12, E 2.2, HS 001
- [Fundamentals of Algorithms und Data Structures \(6 CP\)](#)  
(only if you do not hold a Bachelor's degree in computer science)  
Lectures (2h) with tutorials (2h) given by R. Seidel  
Thu 12-14, E 2.2, HS 001
- Classes in Mechatronics:
  - [Grundlagen der Signalverarbeitung \(5 CP\)](#)  
Lectures (2h) with tutorials (1h) given by D. Klakow  
Thu 14-16, A 5.1, HS 1.03
- Classes in Physics:
  - [Elementare Einführung in die Physik I \(5 CP\)](#)  
Lectures (2h) with tutorials (2h) given by F. Mäüller  
Wed 10-12, C 6.4, HS 0.10
  - [Einführung in die Quanteninformationsverarbeitung \(5 CP\)](#)  
Lectures (2h) with tutorials (2h) given by F. Wilhelm-Mauch  
Mon 12-14, Fri 12-14, E 2.6, E04
- **Freely Selectable Modules:**  
(From this category you need 10 CP. Work as a tutor is accepted for at most 4 CP, and language classes for at most 6 CP.)
  - Work as a tutor (4 CP)
  - [German as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - [English as a Foreign Language for CS Students \(6 CP\)](#)  
Lectures (4h) offered by the Max Planck Institute for Computer Science.
  - The [International Office](#) of Saarland University offers a number of [German language courses](#).
  - Classes on other foreign languages are offered by the [Language Center](#).
  - Research Immersion Lab (6 CP, only in the 2020 regulations)
  - Any of the classes of the first three categories.
  - Classes in humanities (cognitive science, etc.) after approval in advance .
  - Internship (6 CP, only in the 2020 regulations) after approval in advance .

A detailed description of the contents of these classes can be found in our [Handbook of Module Descriptions](#).





The [campus map](#) may help you to localise the individual buildings.

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