# Intercultural Communication

**RESE M 8**

## Relevance for ResEngin curriculum

**compulsory**

<table>
<thead>
<tr>
<th>Administration</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>ResEngin Office</td>
<td><a href="mailto:res.eng@bgu.uka.de">res.eng@bgu.uka.de</a></td>
</tr>
</tbody>
</table>

## Term(s) offered

1st term (Winter term Oct–Mar) + 2nd term (Summer term Apr–Sep)

## Duration | Cycle

2 terms; every other year

## Language of instruction

German

## Prerequisites

German language proficiency (B1 level acc. Common Europ. Ref. Frame)

## Module coordinator

KÄMPF, Dr.rer.nat. Charlotte; IWG-WK (Academic Co-Director)

## Learning outcomes

Description see p. 2.

## Literature / Course materials

Reference list see p. 3.

## Basis for module(s)

M MSc Masterarbeit

M T1–M T5

## Intersection with module(s)

not applicable

### Lecture courses

**Language Course (German/UN lang.)** (lecture)

5.0 CP 8–10 WCH

**Course of Free Choice** (lecture)

1.0 CP 2 WCH

**19611 Environmental Communication** (seminar, exercise, limited seats)

1.0 CP 1 WCH

**SUM** 7.0 CP 11 WCH

### Workload specification

(30 work hours → 1 CP acc. to ECTS*)

7 x 30 h 220.0 h

**Lecture Phase:**

Contact hours 81.5 h

Self instruction hours 124.5 h

**Exam Phase:**

Self instruction hours 14.0 h

### Module examination(s)

“DSH-Prüfung”

other | 240 min | 5.0/7.0 CP

oder

“UN Sprachprüfung”

other | required time | 5.0/7.0 CP

“Course of Free Choice”

report | 5 pages | 1.0/7.0 CP

“Environmental Communication”

writing lab | 1.0/7.0 CP

### Lecturers

(in alphabetic order)

- FORSTMEYER, Frank; Studienkolleg
- KÄMPF, Dr.rer.nat. Charlotte; IWG-WK
- WEGNER, Dr.phil. Wolfgang; Studienkolleg
- Language Instructors; Sprachenzentrum

### Individual lecture courses

Descriptions + Recommended background knowledge see pp. 4.

* this ratio is an approximate measure, here the deviation is +5%
Module 8: “Intercultural Communication” (cont.)

Module topic

Intercultural competency as a pivotal asset to development cooperation in an international or global context. Communication as major component of engineering

Learning outcomes

Disciplinary knowledge (for “Environmental Communication”)
- concepts, theories & definitions
  communication theories: sophists, Aristotle, sociolinguistic models, Luhmann…
  audience, purpose, context / kairos, symbol;
  document genres: memo, review, proposal, research report.
- subject matter (factual data, examples)
  communication modes: face-to-face, virtual (e-mail), synchronic, asynchronic, intercultural.
- methods & procedures
  document cycle (proposal → draft → presentation → report)
  copy editing, comprehensive editing, peer review.

Professional skills
- To enable students (a) to design relevant document genres in appropriate communication modes / media; (b) to select the appropriate communication mode and genre for a specific task in environmental resources management.

Personal competence
- Independent writing.

* this ratio is an approximate measure, here the deviation is +5%
Module 8: “Intercultural Communication” (cont.)

**Literature/ Course material**


* this ratio is an approximate measure, here the deviation is +5%
## Module 8

### Intercultural Communication

## Course

### German Language Course

<table>
<thead>
<tr>
<th>KIT Lecture ID</th>
<th>DB210</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relevance</strong></td>
<td>compulsory</td>
</tr>
<tr>
<td><strong>Prerequisites</strong></td>
<td>Bachelor, German proficiency (B1 level acc. CEFR)</td>
</tr>
<tr>
<td><strong>Term(s)</strong></td>
<td>1st term (winter)</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>German</td>
</tr>
<tr>
<td><strong>Training mode</strong></td>
<td>Lecture, 10 WCH *</td>
</tr>
<tr>
<td><strong>Workload</strong></td>
<td>5.0 CP $\Rightarrow$ 154.0 h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Workload specification</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LECTURE PHASE</strong></td>
</tr>
<tr>
<td>Contact (based on 10 WCH)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>EXAM PHASE</strong></td>
</tr>
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<td></td>
</tr>
</tbody>
</table>

### Lecturer(s)

- FORSTMEYER, Frank; Studienkolleg
- WEGNER, Dr.phil. Wolfgang; Studienkolleg

### Course topic

German language proficiency at C1/C2-level acc. to CEFR.

### Recommended background knowledge

Formal skills in language learning.

### Learning outcomes

**Disciplinary knowledge**
- concepts, theories & definitions: n.a.
- subject matter (factual data, examples): n.a.
- methods & procedures: n.a.

**Professional skills**: n.a.

**Personal competence**

Intercultural communication, intercultural competence. Independent text production.

### Assessment specification

- written: ***
- oral: ***
- other: 240 min $\Rightarrow$ partial module exam “DSH-Prüfung”

---

* WCH = Weekly Contact Hours
Module 8

Course UN Language Course

**Module 8**

**Intercultural Communication**

**Course**

**UN Language Course**

<table>
<thead>
<tr>
<th>KIT lecture ID</th>
<th>n.a.</th>
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</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>compulsory</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>Bachelor, German proficiency (B1 level acc. CEFR)</td>
</tr>
<tr>
<td>Term(s)</td>
<td>1st term (winter) 2nd term (summer)</td>
</tr>
<tr>
<td>Language</td>
<td>Chinese/ French/ Russian/ Spanish</td>
</tr>
<tr>
<td>Training mode</td>
<td>Lecture, 8-10 WCH *</td>
</tr>
<tr>
<td>Workload</td>
<td>5.0 CP ⇒ 154.0 h</td>
</tr>
</tbody>
</table>

**Workload specification**

| LECTURE PHASE | Contact (based on 9 WCH) | 90.0 h |
|               | Self instruction          | 60.0 h |
| EXAM PHASE    | Exam                       | 4.0 h  |

**Contact**

res.eng@bgu.uka.edu

**Lecturer(s)**

UN Language Instructors; Sprachenzentrum

**Course topic**

Language proficiency at course level acc. to CEFR.

**Recommended background knowledge**

n.a.

**Learning outcomes**

**Disciplinary knowledge**
- concepts, theories & definitions n.a.
- subject matter (factual data, examples) n.a.
- methods & procedures n.a.

**Professional skills**

n.a.

**Personal competence**

Intercultural communication.

**Assessment specification**

written ---
oral ---
other required time = partial module exam “UN-Sprachprüfung” (1st term, 2nd term)

*WCH = Weekly Contact Hours*
**Course of Free Choice**

<table>
<thead>
<tr>
<th>KIT lecture ID</th>
<th>n.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>compulsory</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>Bachelor, German proficiency (B1 level acc. CEFR)</td>
</tr>
<tr>
<td>Term(s)</td>
<td>1st term (winter)</td>
</tr>
<tr>
<td>Language</td>
<td>German</td>
</tr>
<tr>
<td>Training mode</td>
<td>Lecture, 2 WCH *</td>
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<tr>
<td>Workload</td>
<td>1.0 CP ⇒ 38.0 h</td>
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**Workload specification**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Details</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>LECTURE PHASE</td>
<td>Contact (based on 2 WCH)</td>
<td>21.0 h</td>
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<tr>
<td></td>
<td>Self instruction</td>
<td>7.0 h</td>
</tr>
<tr>
<td>EXAM PHASE</td>
<td>Self instruction</td>
<td>10.0 h</td>
</tr>
</tbody>
</table>

**Contact**

res.eng@bgu.uka.de

**Lecturer(s)**

BGU lecturers

**Course topic**

Depends on lecture course chosen.

**Recommended background knowledge**

Depends on lecture course chosen.

**Learning outcomes**

**Disciplinary knowledge**

- concepts, theories & definitions
- subject matter (factual data, examples)
- methods & procedures

**Professional skills**

n.a.

**Personal competence**

n.a.

**Assessment specification**

written ---
oral ---
other report = partial module exam "Course of Free Choice" (1.500–1.700 words)

* WCH = Weekly Contact Hours
Module 8

Intercultural Communication

Course

Environmental Communication

<table>
<thead>
<tr>
<th>KIT lecture ID</th>
<th>19611</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>compulsory</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>Bachelor</td>
</tr>
<tr>
<td>Term(s)</td>
<td>2nd term (winter)</td>
</tr>
<tr>
<td>Language</td>
<td>English</td>
</tr>
<tr>
<td>Training mode</td>
<td>Seminar, 1 WCH *</td>
</tr>
<tr>
<td>Workload</td>
<td>1.0 CP ⇒ 28.0 h</td>
</tr>
</tbody>
</table>

Workload specification

<table>
<thead>
<tr>
<th>LECTURE PHASE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact (based on 1 WCH)</td>
<td>10.5 h</td>
</tr>
<tr>
<td>Writing lab</td>
<td>17.5 h</td>
</tr>
</tbody>
</table>

Contact

charlotte.kaempf@kit.edu

Lecturer(s)
KÄMPF, Dr.rer.nat. Charlotte (Dipl.-Biol., M.A. Tech. Comm); IWG-WK

Course topic
Communication as major component of professional tasks in engineering.
Recommended background knowledge
report writing, job application documents, thesis writing

Learning outcomes

Disciplinary knowledge
- concepts, theories & definitions
  communication theories: sophists, Aristotle, sociolinguistic models, Luhmann...
  audience, purpose, context / kairos, symbol;
  document genres: memo, review, proposal, research report.
- subject matter (factual data, examples)
  communication modes: face-to-face, virtual (e-mail), synchronous, asynchronic, intercultural.
- methods & procedures
  document cycle (proposal → draft → presentation → report)
  copy editing, comprehensive editing, peer review.

Professional skills
To enable students (a) to design relevant document genres in appropriate communication modes / media; (b) to select the appropriate communication mode and genre for a specific task in environmental resources management.

Personal competence
Independent writing. Communication competencies for international cooperation in development projects.

Assessment specification

written ---
oral ---
other writing lab = partial module exam “Environmental Communication”

* WCH = Weekly Contact Hours
# International Project Management

**RESE M 9**

**Relevance for ResEngin curriculum** | compulsory
---|---
**Administration** | ResEngin Office
**Contact** | res.eng@bgu.uka.de

**Term(s) offered** | 1st term (Winter term Oct–Mar) + 2nd term (Summer term Apr–Sep)
**Duration | Cycle** | 2 terms; every other year
**Language of instruction** | German
**Prerequisites** | German language proficiency (B1 level acc. Common Europ. Ref. Frame)

**Module coordinator** | KÄMPF, Dr.rer.nat. Charlotte; IWG-WK [Modulverantwortliche] (Academic Co-Director)

**Learning outcomes** | Description see p. 2.
**Literature / Course materials** | Reference list see p. 3.

**Basis for module(s)** | M MSc Masterarbeit
**Intersection with module(s)**

| M 7 | Integrated Projects |
| M 8 | Intercultural Communication |

**Lecture courses (training mode)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Project Mgmt. (Internship)</td>
<td>6.0 CP</td>
<td>4 wks.</td>
</tr>
<tr>
<td>Institutions for Development Coop.</td>
<td>1.0 CP</td>
<td>1 WCH</td>
</tr>
<tr>
<td>Independent Study (Thesis Proposal)</td>
<td>1.0 CP</td>
<td>1 WCH</td>
</tr>
</tbody>
</table>

**SUM** | 8.0 CP | 2 WCH + 4 wks |

**Workload specification**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Phase</td>
<td>Contact hours</td>
<td>92.5 h</td>
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<tr>
<td></td>
<td>Self instruction hours</td>
<td>106.5 h</td>
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<tr>
<td>Exam Phase</td>
<td>Self instruction hours</td>
<td>41.0 h</td>
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</table>

**Module examination(s) (mode | scope | weighting)**

<table>
<thead>
<tr>
<th>Examination</th>
<th>Description</th>
<th>Words</th>
<th>CP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internship</td>
<td>report</td>
<td>4,000</td>
<td>6.0/8.0</td>
</tr>
<tr>
<td>Development Cooperation</td>
<td>report</td>
<td>1,500–1,700</td>
<td>1.0/8.0</td>
</tr>
<tr>
<td>Thesis Proposal</td>
<td>presentation</td>
<td>20 min</td>
<td>1.0/8.0</td>
</tr>
</tbody>
</table>

**Lecturers (in alphabetic order)**

- KÄMPF, Dr.rer.nat. Charlotte; IWG-WK
- all Resources Engineering lecturers; KIT

**Individual lecture courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptions + Recommended background knowledge</td>
<td>see pp. 4.</td>
</tr>
</tbody>
</table>
Module 9: “International Project Management” (cont.)

Module topic

Document writing for engineers in governmental authorities, in industry or consulting engaged in development cooperation projects. Various types of technical, scientific and financial institutions that complete the frame for professional engineering work; i.e., to the institutional context of project planning, implementation, and operation.

Learning outcomes

**Disciplinary knowledge**

- **concepts, theories & definitions**
  Concepts and facts on project management.
  Overview of technical, scientific and financial institutions on a national, supranational and international level; goals, objectives of institutions and services offered.

- **subject matter (factual data, examples)**
  To shadow a member of the host institution.
  To review documentation of a past and an ongoing international project
  To review and describe the design of various proposals.
  German institutions which engage in capacity building in developing countries such as DAAD, GTZ, KfW.

- **methods & procedures**
  Literature research, data collection, defining design styles, following design recommendations.
  Cooperation among such institutions and with federal ministries.

**Professional skills**

- To familiarize students to international project collaboration, team management at the example of the working culture in a German research institution: (a) budgeting; (b) time management (e.g. setting up meetings); (c) communication competency with funding agencies and prospective partners (d) Document life cycle: proposal 1 → progress report → final report → proposal 2. To enable students for independent grant application writing.

- To enable students to contribute as engineering professionals to managing interdisciplinary water resources development projects; defining development objectives.

- To gain expertise in proposal writing, defining a research question, locating reference literature, defining relevant research methods, assessing the feasibility of the outcome of the inquiry. Independent academic research.

**Personal competence**

- Independent writing of proposals for development cooperation projects.
- Working in transdisciplinary contexts, intercultural competence, organisational cultures.
Module 9: “International Project Management” (cont.)

Literature/ Course material

Library on Development Policy at ResEngin Office
Libraries at institutions where students will take their internship
Module 9

International Project Management

Course

International Project Management (Internship)

<table>
<thead>
<tr>
<th>KIT Lecture ID</th>
<th>n.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>compulsory</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>Bachelor</td>
</tr>
<tr>
<td>Term(s)</td>
<td>3rd term (winter)</td>
</tr>
<tr>
<td>Language</td>
<td>English/ German</td>
</tr>
<tr>
<td>Training mode</td>
<td>Internship, 4 wks</td>
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<tr>
<td>Workload</td>
<td>6.0 CP ⇒ 180.0 h</td>
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</tbody>
</table>

**Workload specification**

<table>
<thead>
<tr>
<th>SEPTEMBER</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Contact</td>
<td>80.0 h</td>
</tr>
<tr>
<td>Self instruction</td>
<td>80.0 h</td>
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</table>

<table>
<thead>
<tr>
<th>OCTOBER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam</td>
<td>20.0 h</td>
</tr>
</tbody>
</table>

**Contact**

res.eng@bgu.uka.de

**Lecturer(s)**

all Resources Engineering lecturers

**Course topic**

Importance of document writing for an engineer in consulting, in development cooperation projects. Effective management of international projects will be an important asset for graduates.

Recommended background knowledge

M 1…M 6; M 8

**Learning outcomes**

**Disciplinary knowledge**

- concepts, theories & definitions
  Concepts and facts on project management.
- subject matter (factual data, examples)
  to shadow a member of the host institution
to review documentation of a past and an ongoing international project
to review and describe the design of various proposals.
- methods & procedures
  literature research, data collection, defining design styles, following design recommendations.

**Professional skills**

To familiarize students to international project collaboration, team management at the example of the working culture in a German research institution: (a) budgeting; (b) time management (e.g. setting up meetings); (c) communication competency with funding agencies and prospective partners (d) Document life cycle: proposal 1 ⇒ progress report ⇒ final report ⇒ proposal 2. To enable students for independent grant application writing.

**Personal competence**

independent writing of proposals for development cooperation projects.

**Assessment specification**

written ---
oral ---
other report (4,000 words) = partial module exam “Internship”

* WCH = Weekly Contact Hours
### Course

**Institutions for Development Cooperation**

<table>
<thead>
<tr>
<th>KIT lecture ID</th>
<th>Workload specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>xxxxx</td>
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</table>

<table>
<thead>
<tr>
<th>Relevance</th>
<th>compulsory</th>
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</thead>
<tbody>
<tr>
<td>Prerequisites</td>
<td>Bachelor</td>
</tr>
<tr>
<td>Term(s)</td>
<td>3rd term (winter)</td>
</tr>
<tr>
<td>Language</td>
<td>English/ German</td>
</tr>
<tr>
<td>Training mode</td>
<td>Seminar, 1 WCH *</td>
</tr>
<tr>
<td>Workload</td>
<td>1.0 CP ( \Rightarrow 30.0) h</td>
</tr>
</tbody>
</table>

**LECTURE PHASE**
- Contact (based on 5 WCH) \(10.5\) h
- Self instruction    \(10.5\) h

**EXAM PHASE**
- Exam                  \(9.0\) h

**Contact**
- charlotte.kaempf@kit.edu

**Lecturer(s)**
- KÄMPF, Dr.rer.nat. Charlotte; IWG-WK

**Course topic**
Technical, scientific and financial institutions that complete the frame for professional engineering work; i.e., to the institutional context of project planning, implementation, and operation.

**Recommended background knowledge**
“Internship”

**Learning outcomes**

<table>
<thead>
<tr>
<th>Disciplinary knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>- concepts, theories &amp; definitions     overview of technical, scientific and financial institutions on a national, supranational and international level; goals, objectives of institutions and services offered.</td>
</tr>
<tr>
<td>- subject matter (factual data, examples) German institutions which engage in capacity building in developing countries such as DAAD, GTZ, KfW.</td>
</tr>
<tr>
<td>- methods &amp; procedures cooperation among such institutions and with federal ministries.</td>
</tr>
</tbody>
</table>

**Professional skills**
To enable students to contribute as engineering professionals to managing interdisciplinary water resources development projects; defining development objectives.

**Personal competence**
Working in transdisciplinary contexts, intercultural competence, organisational cultures

**Assessment specification**
- written ---
- oral ---
- other report = partial module exam “Development Cooperation” 1.500–1.700 words

* WCH = Weekly Contact Hours
Module 9

International Project Management

Course

Independent Study (Thesis Proposal)

<table>
<thead>
<tr>
<th>KIT lecture ID</th>
<th>n.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
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<tr>
<td>Prerequisites</td>
<td>Bachelor</td>
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<tr>
<td>Term(s)</td>
<td>3rd term (winter)</td>
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<td>Language</td>
<td>English/ German</td>
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<tr>
<td>Training mode</td>
<td>Seminar</td>
</tr>
<tr>
<td>Workload</td>
<td>1.0 CP =&gt; 30.0 h</td>
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</table>

**Workload specification**

<table>
<thead>
<tr>
<th>LECTURE PHASE</th>
<th>Self instruction 16.0 h</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contact 2.0 h</td>
</tr>
</tbody>
</table>

| EXAM PHASE | Self instruction 8.0 h |
|           | Presentation 4.0 h |

**Contact**

res.eng@bgu.uka.de

<table>
<thead>
<tr>
<th>Lecturer(s)</th>
<th>all Resources Engineering lecturers</th>
</tr>
</thead>
</table>

| Course topic | Definition of a relevant research question in the field of water-oriented resources engineering. |

Recommended background knowledge

M 1 ...M 7, + 3 compulsory elective modules M T1...M T5

**Disciplinary knowledge**

- concepts, theories & definitions
  - concepts and facts of the chosen topic for the Master thesis.
- subject matter
- methods & procedures

**Professional skills**

To gain expertise in proposal writing, defining a research question, locating reference literature, defining relevant research methods, assessing the feasibility of the outcome of the inquiry. Independent academic research.

**Personal competence**

n.a.

**Assessment specification**

- written ---
- oral ---
- presentation = partial module exam “Thesis Proposal” 20 min

* WCH = Weekly Contact Hours
**Masterarbeit**

**Relevance for ResEngin curriculum**
- compulsory

**Administration**
- ResEngin Office
- res.eng@bgu.uka.de

**Term(s) offered**
- 4th term (Summer Apr–Sept)

**Duration | Cycle**
- 1 term; every other year

**Language of instruction**
- English / German

**Prerequisites**
- M 1–M 9

**Module coordinator**
- KÄMPF, Dr. rer. nat. Charlotte; IWG-WK (Academic Co-Director)

**Learning outcomes**
- Description see p. 2.

**Literature / Course materials**
- Reference list see p. 3.

**Basis for module(s)**
- n.a.

**Intersection with module(s)**
- n.a.

<table>
<thead>
<tr>
<th>Lecture courses (training mode)</th>
<th>Part I Master thesis (research under supervision)</th>
<th>25.0 CP</th>
<th>18 wks.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Part II Institutions for Development Coop. (seminar)</td>
<td>5.0 CP</td>
<td>2 wks</td>
</tr>
<tr>
<td></td>
<td><strong>SUM</strong></td>
<td><strong>30.0 CP</strong></td>
<td><strong>20 wks.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Workload specification</th>
<th>(30 work hours → 1 CP acc. to ECTS)</th>
<th><strong>30 x 30 h</strong></th>
<th><strong>900 h</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>April–July</strong></td>
<td>Contact hours</td>
<td>90.0 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data collection</td>
<td>150.0 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data analysis</td>
<td>270.0 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thesis synthesis</td>
<td>240.0 h</td>
<td></td>
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<tr>
<td><strong>August</strong></td>
<td>Self instruction hours</td>
<td>150.0 h</td>
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</table>

<table>
<thead>
<tr>
<th>Module examination(s) (mode</th>
<th>scope</th>
<th>weighting)</th>
<th>“Master Thesis”</th>
<th>thesis</th>
<th>8–10.000 w.</th>
<th>25.0/30.0 CP</th>
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</thead>
<tbody>
<tr>
<td>“Colloquium”</td>
<td>presentation, Q&amp;A</td>
<td>60 min</td>
<td>5.0/30.0 CP</td>
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<table>
<thead>
<tr>
<th>Lecturers (in alphabetic order)</th>
<th>KÄMPF, Dr. rer. nat. Charlotte; IWG-WK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all Resources Engineering lecturers; KIT</td>
</tr>
</tbody>
</table>

| Individual lecture courses | Descriptions + Recommended background knowledge | see pp. 4. |
Module MSc: “Masterarbeit” (cont.)

Module topic

Independent research for the definition of an engineering solution to a problem in the field of natural resources or renewable resources.

Learning outcomes

Disciplinary knowledge

- **concepts, theories & definitions**
  
  study context of the Master degree program (incl. subject area of individual specialization).

- **subject matter (factual data, examples)**
  
  Specialized knowledge of a subject area as foundation for the student’s research.

- **methods & procedures**

Professional skills

- Expertise in workflow optimization, data collection and data analysis. Independent management and transformation of a complex and unpredictable problem from the general field of study contexts of the Master degree program “Resources Engineering” (including related subject areas) utilizing scientific state-of-the-art research methods.

- Present findings of original research.

Personal Competence

- Taking responsibility for contributing to professional knowledge.

- Defend findings of original research.
Module MSc: “Masterarbeit” (cont.)

Literature/ Course material
### Part I

#### Master Thesis

<table>
<thead>
<tr>
<th>KIT Lecture ID</th>
<th>n.a.</th>
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</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>compulsory</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>Modules M 1–9, + 3 comp. modules from M T 1 ... T 5</td>
</tr>
<tr>
<td>Term(s)</td>
<td>4th term (summer)</td>
</tr>
<tr>
<td>Language</td>
<td>English/ German</td>
</tr>
<tr>
<td>Training mode</td>
<td>Data collection, 6 wks Data analysis, 8 wks Synthesis, 6 wks</td>
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<tr>
<td>Workload</td>
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#### Workload specification

<table>
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<tr>
<th>APRIL – JUNE</th>
<th>Contact</th>
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<tbody>
<tr>
<td>Data Collection</td>
<td>180 h</td>
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<tr>
<td>Analysis</td>
<td>270 h</td>
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<tr>
<td>JUNE/ JULY</td>
<td>Synthesis</td>
<td>210 h</td>
</tr>
</tbody>
</table>

**Contact**

res.eng@bgu.uka.de

#### Lecturer(s)

all Resources Engineering lecturers + external experts upon approval by the Resources Engineering examination board

#### Course topic

Exploration of a solution for a relevant research question in the field of water-oriented resources engineering.

**Recommended background knowledge**

n.a.

#### Learning outcomes

**Disciplinary knowledge**

- concepts, theories & definitions
  - study context of the Master degree program (incl. subject area of individual specialization).
- subject matter (factual data, examples)
  - Specialized knowledge of a subject area as foundation for the student's research.
- methods & procedures

**Professional skills**

Expertise in workflow optimization, data collection and data analysis. Independent management and transformation of a complex and unpredictable problem from the general field of study contexts of the Master degree program “Resources Engineering” (including related subject areas) utilizing scientific state-of-the-art research methods.

**Personal competence**

Taking responsibility for contributing to professional knowledge.

<table>
<thead>
<tr>
<th>Assessment specification</th>
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<tbody>
<tr>
<td>written ---</td>
</tr>
<tr>
<td>oral ---</td>
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<tr>
<td>other thesis = partial module exam “Master thesis”</td>
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<td>8–10,000 words</td>
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* WCH = Weekly Contact Hours
### Part II Colloquium

<table>
<thead>
<tr>
<th>KIT lecture ID</th>
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<tr>
<td><strong>Relevance</strong></td>
<td>compulsory</td>
</tr>
<tr>
<td><strong>Prerequisites</strong></td>
<td>Modules M 1-7, M 9, written Master thesis</td>
</tr>
<tr>
<td><strong>Term(s)</strong></td>
<td>4th term (summer)</td>
</tr>
<tr>
<td><strong>Language</strong></td>
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<td><strong>Training mode</strong></td>
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<td><strong>Workload</strong></td>
<td>5.0 CP $\Rightarrow$ 150.0 h</td>
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<table>
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<tr>
<th>Workload specification</th>
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<tbody>
<tr>
<td><strong>AUGUST</strong></td>
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<tr>
<td>Contact</td>
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<td><strong>EXAM PHASE</strong></td>
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<td>Exam</td>
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<tbody>
<tr>
<td><a href="mailto:res.eng@bgu.uka.de">res.eng@bgu.uka.de</a></td>
</tr>
</tbody>
</table>

### Lecturer(s)

all Resources Engineering lecturers + external experts upon approval by the “Resources Engineering” examination board

### Course topic

Presentation of independent research to a small audience.

### Recommended background knowledge

n.a.

### Learning outcomes

**Disciplinary knowledge**
- concepts, theories & definitions
- subject matter (factual data, examples)
- methods & procedures

**Professional skills**

Present findings of original research.

**Personal competence**

Defend findings of original research.

### Assessment specification

written ---
oral ---
other presentation, Q&A = partial module exam “Colloquium” 30 + 30 min

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* WCH = Weekly Contact Hours