**Module Description**

1. **Qualification Aims**

Participants of this module have learnt how to critically read and evaluate scientific papers. They are able to work independently to gain an understanding of recently published results and the methods and proofs behind. They can communicate the central ideas behind to non-experts and discuss the value of the presented findings. They know about the key features of good oral presentations and the preparation of a corresponding handout (5-10 pages).

The course is *principally* designed to impart technical skills 40%, method skills 40% system skills 0% social skills 20%.

2. **Content**

In this seminar recent research of our group and special invited guests is presented. The main topics are parameterized algorithmics and complexity. The seminar is an excellent opportunity for advanced students to get in touch with current topics in our research field.

3. **Module Components**

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course type</th>
<th>Weekly hours per semester</th>
<th>CPs (acc. to ECTS)</th>
<th>Compulsory(C) / Compulsory Elective (CE)</th>
<th>Semester (WiSe / SoSe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Colloquium on Algorithms and Complexity</td>
<td>SE</td>
<td>2</td>
<td>3</td>
<td>C</td>
<td>WiSe+SoSe</td>
</tr>
</tbody>
</table>

4. **Description of Teaching and Learning Methods**

Classic seminar with conference style talks. Participating students have to write a handout (5-10 pages), where central ideas and methods presented in the talk are summarized.

5. **Prerequisites for Participation**

a) obligatory: Bachelor in Computer Science, Technical Computer Science, or Mathematics
b) desirable: Further knowledge on algorithms and complexity

6. **Target Group of Module**

- Computer Science Master with focus “Reliable Systems”
- Computer Science Master with focus “Intelligent Systems”
- Computer Science Diploma
- Computer Engineering Master with focus “Software Engineering”
- Computer Engineering Diploma

7. **Work Requirements and Credit Points**

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Calculation Factor</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>15x2</td>
<td>30</td>
</tr>
<tr>
<td>Search for material and references</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Preparation of presentation</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Writing seminar paper</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>90</strong></td>
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8. Module Examination and Grading Procedures

60% talk, 30% handout, 10% active participation

9. Duration of Module

1 semester

10. Number of Participants

Around 12 participants

11. Enrolment Procedures

http://www.akt.tu-berlin.de

12. Recommended Reading, Lecture Notes

Lecture notes available in paper form? yes no
Lecture notes available in electronic form? yes no

**Recommended Reading:**
The participants are asked to research on their own in order to contribute to the seminar.

13. Other Information