6. Topic area Physical Chemistry

<table>
<tr><td colspan="3">Module: Chemical Processes on Surfaces and Interfaces</td><td></td></tr>
<tr><td colspan="4">University/department/institute: Freie Universität Berlin/Department of Biology, Chemistry and Pharmacy/Institute of Chemistry and Biochemistry</td></tr>
<tr><td colspan="4">Responsible for the module: module lecturers</td></tr>
<tr><td colspan="4">Admission requirements: none</td></tr>
<tr><td colspan="4">Qualification aims: The students have gained a deeper insight into processes on surfaces. This includes an understanding of the thermodynamics, the kinetics and the dynamics of these processes and the methods used to gain this information. The students have made concrete links to current research, gaining insight into the everyday work of a physical chemist.</td></tr>
<tr><td colspan="4">Content: Structure and dynamics of surfaces and interfaces; methods of surface analysis and characterization; interaction of adsorbates on surfaces; chemical reactions on surfaces and discussion of the atomic principles and also the thermodynamic or kinetic description of the processes</td></tr>
<tr><td>Teaching and learning units</td><td>Attendance (Semester hours per week = SH)</td><td>Forms of active participation</td><td>Study time (hours)</td></tr>
<tr><td>Lecture</td><td>3</td><td>-</td><td>Attendance L 45
Preparation and follow-up L 60
Examination preparation, examination 45</td></tr>
<tr><td colspan="2">Language of instruction</td><td colspan="2">German or English</td></tr>
<tr><td colspan="2">Compulsory regular attendance</td><td colspan="2">Attendance recommended</td></tr>
<tr><td colspan="2">Study time, total hours</td><td>150 hours</td><td>5 CP</td></tr>
<tr><td colspan="2">Duration of module</td><td colspan="2">One semester</td></tr>
<tr><td colspan="2">Module offered</td><td colspan="2">Not regularly</td></tr>
<tr><td colspan="2">Application</td><td colspan="2">Master’s program in Chemistry</td></tr>
</table>