

Elective Lecture					
Module number	Credits	Workload	Term	Frequency	Duration
	5 CP	150 h	2. Sem.	only SoS	1 Semester
Courses Processes in Chemical Production - Past, Present and Future			Contact hours a) 2 SWS b) 1 SWS	Self-Study 105 h	Group size All students choosing Industrial Chemistry
Prerequisites Solid knowledge of basics in Industrial Chemistry, Inorganic Chemistry, Organic Chemistry, and Physical Chemistry					
Learning/Course Objectives: Students will acquire knowledge on important processes in chemical production and on the network of raw materials and product flows in a national economy into which these are integrated. They are to appreciate the influences of access to raw materials including renewables, technological standard and regional conditions on the structure of the chemical industry and to know important final products of chemical production and typical quality characteristics targeted in the production process. They get insight in important management aspects in the chemical industry, in particular related to the assessment and innovation of production processes.					
Content <ol style="list-style-type: none"> 1. Raw materials for industrial organic chemistry in past, present and future 2. Oil refining, processes and actual trends 3. Production and use of synthesis gas and of hydrogen; production and use of olefins; oxidation processes in chemical industry; synthesis, properties and technology of polymer materials 4. Basic processes of inorganic chemical technology (incl. fertilizers) 5. Industrial use of renewables, presence and perspective 6. Business-management aspects of a chemists' job in industry 7. Criteria for the evaluation of chemical production processes, methodics for the design of new chemical production processes 					
Teaching methods a) Lecture; b) Exercises					
Mode of assessment 30 min end-of-term oral exam					
Requirement for the award of credit points Passing the oral exam					
Module applicability Master of Chemistry, focal point Industrial Chemistry					
Weight of the mark for the final score Weighted according to CPs					
Module coordinator and lecturer(s) B. Mei, H. Zanthoff, A. Wolf, M. Muhler					
Further information All lectures and additional contents of exercises are distributed via <i>moodle</i> .					