

Georg-August-Universität Göttingen Module B.WIWI-WIN.0036: Security in the Cloud – Practical Applications and Trends		6 C 2 WLH
Learning outcome, core skills: Students will: • understand basic concepts and principles of IT and cloud security, • evaluate different security architectures for cloud applications, • recognize and evaluate security risks in cloud environments with regard to compliance, data protection and legal aspects, • analyze security risks in cloud environments, • apply techniques and best practices to secure applications, • develop a practical security project with a code artifact, • present technical concepts and solutions effectively as part of a group project.		Workload: Attendance time: 28 h Self-study time: 152 h
Course: B.WIWI-WIN.0036.Sem Security in the Cloud – Practical Applications and Trends (Practical seminar) Contents: This practical seminar introduces students to the field of cloud security through a combination of lecture input, hands-on exercises, and a practical group project. Students will gain a comprehensive understanding of cloud security architectures, data protection regulations, identity and access management, secure DevOps, and current trends and challenges. The seminar places particular emphasis on the practical application of security techniques and tools to secure cloud applications. The practical seminar enables students to apply and deepen their theoretical knowledge in a real-life scenario.		2 WLH
Examination: Development of a prototype (artifact (source code of the project)) with presentation (approx. 5 minutes per person) and project report (max. 10 pages per person) in group work (typically 3 students) B.WIWI-WIN.0036.Mp: Security in the Cloud – Practical Applications and Trends Examination prerequisites: Regular attendance		6 C
Examination requirements: • Successfully and jointly completed exams in a group, typically consisting of 3 students, • source code artifact is evaluated based on metrics for code quality, security, documentation, version control, testing, deployment / scalability and cloud integration, • presentation (5 minutes per person + 5 minutes total questions) and project report of 10 pages per person.		
Admission requirements: none	Recommended previous knowledge: Basics of programming and software development	
Language: English	Person responsible for module: Prof. Dr. Lutz Maria Kolbe	

	Dr. Christopher Henkel
Course frequency: irregular	Duration: 1 semester[s]
Number of repeat examinations permitted: twice	Recommended semester: 4 - 6
Maximum number of students: 15	