Dual Studies Education Plan for Practical Periods

Study Path: Information Technology (DSIT)

Company:

Tutor in Company:

Student name:

TERM	**Learning Outcomes, Competences, Tasks, Acitvities,** (selected items in **bold**)	proposed duration (weeks)	department	time period
1	**Intended Learning Outcomes** (according to module no 8011190) o knowledge of the organization and area of business of their company o ability to apply basic expiries of IT processes of development and service aspects and to understand their economic connections **1. General computer science knowledge** o Hard- and software components of computers/ workstations/ networks o Internet and internet-services (WWW, FTP,…) o Networks Technology (WAN, LAN, Topologies) o Data back-up, file management o Programming – any high level language o Software Engineering - smaller parts for a project o Use of operational systems (Windows, Linux, Android, iOS,…) o Application of mobile IT Systems **2. Introduction to computer operation and use:** o Phases of software engineering in the business environment o Importance and basics of IT security **Additional Skills:** o Organization o Teamwork o Documentation o English **Other items/activities**	12		1st Dec 2015 till 28th February 2016

2	**Intended Learning Outcomes** (according to module no 8011190) o knowledge of the organization and area of business of their company o ability to apply basic expiries of IT processes of development and service aspects and to understand their economic connections **1. General computer science knowledge** o Hard- and software components of computers/ workstations/ networks o Internet and internet-services (WWW, FTP,…) o Networks Technology (WAN, LAN, Topologies) o Data back-up, file management o Programming – any high level language o Software Engineering - smaller parts for a project o Use of operational systems (Windows, Linux, Android, iOS,…) o Application of mobile IT Systems **2. Introduction to computer operation and use** o Phases of software engineering in the business environment o Importance and basics of IT security **Additional Skills:** o Organization o Teamwork o Project Management and Control o Documentation o English **Other items/activities**	12		1st June 2016 till 31st August 2016
3	**Intended Learning Outcomes** (according to module no 8011290) o ability to conduct small, independent tasks under guidance of a supervisor o further improve soft skills **Information Technology knowledge** o Internet-services (WWW, FTP,…) o IT Security, Malware - recognize and fight o Networks (WAN, LAN, Topologies) o Programming (Java, C++, HTML, XML,…) o Boot o Shell scripts o Software Engineering o Operational systems server systems, Kernel o Mobile systems, OS o Single and multi-user systems o Software- Quality processes **Additional Skills:** o Costs and budgets o Time management o Product quality assurance o Production o English **Other items/activities**	12		

4	**Intended Learning Outcomes** (according to module no 8011290) o ability to conduct small, independent tasks under guidance of a supervisor o further improve soft skills **Information Technology knowledge** o Internet services (WWW, FTP,…) o IT Security, Malware - recognize and fight o Networks (WAN, LAN, Topologies) o Programming (Java, C++, HTML, XML,…) o Boot o Shell scripts o Software Engineering o Operational systems server systems, kernel o Mobile systems, OS o Single and multi-user systems o Software quality processes **Additional Skills:** o Costs and budgets o Time management o Product quality assurance o Production o English **Other items/activities**	12		
5	**Intended Learning Outcomes** (according to module no 8011390) o ability to take over responsibility for limited tasks o ability to work in the company as a valuable, esteemed staff member **Information Technology knowledge** o Android, iOS systems o Database applications o Data warehouses and data mining o Distributed storage and processing system for large data base (like Hadoop) o NoSQL database o IT Security o Application programming o System programming o Network design and administration o Cloud and distributed systems set-up **Additional Skills:** o Cost and budgets o Time management o Project management o Business skills **Other items/activities**	12		

6	**Intended Learning Outcomes** (according to module no 8011390) o ability to take over responsibility for limited tasks o ability to work in the company as a valuable, esteemed staff member **Information Technology knowledge** o Android, iOS systems o Database applications o Data warehouses and data mining o Distributed storage and processing system for large data base (like Hadoop) o NoSQL database o IT Security o Application programming o System programming o Network design and administration o Cloud and distributed systems set-up **Additional Skills:** o Cost and budgets o Time management o Project management o Business skills **Other items/activities**	12		

7 & 8	**Graduation Project** (according to module no 8011490) The graduation project demonstrates the student's ability to deal and solve practice-related problems from the respective field by using practical and scientific knowledge and methods. **Intended Learning Outcome** o An ability to design a system, component, or process to meet desired needs. o An ability to function on multidisciplinary teams. o An ability to identify, formulate, and solve engineering problems. o An understanding of professional and ethical responsibility. o An ability to communicate effectively. o The broad education necessary to understand the impact of engineering solutions in a global and societal context. o A recognition of the need for, and an ability to engage in life-long learning. o A knowledge of contemporary issues. o An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice. o An ability to transfer theoretical knowledge into practical applications o A knowledge of the professional environment o Well-developed social competences **Knowledge and Understanding** o ability to develop solutions for complex technical problems in IT by applying scientific methods o ability to understand the scientific basics of IT and to deepen and apply it o knowledge of the current state of the art / state of research in his/her specific project area o ability to write a project report according to the rules of scientific work o ability to create a project plan for monitoring and tracking of the project **Cognitive/Intellectual/social skills:** o The student has analyzed the problems and evaluated alternative solutions. o The student can expand his knowledge and interpret current knowledge. o He can formulate subject-specific solutions and can communicate to customers and colleagues. o As a team member, he/she takes over responsibility for a task. **Other items/activities** **The student's theme has to be submitted 6 weeks before practice phase 7 starts.**	12		