

## Course announcement - Capstone

### General description

Capstone project is a process type study course during which multidisciplinary group of students aims to solve a real-life problem from industry. This Capstone project gives students an opportunity to combine knowledge of biotechnology and engineering sciences and to apply this special know-how to meet requirements of industry.

The project in question begins 1<sup>st</sup> of October 2012 with a joint project group meeting (time announced later). Project is a cooperative project between University of Turku, Turku University of Applied Sciences and a biotechnology company Abacus Diagnostica. Students wishing to participate need to file application, where they explain their competences and capabilities as well as the effort what they can bring to the team. Students are then selected according to their applications, so that the group's competences match the required competences. Course is intended for Master students (Bachelor of Technology must be completed).



**Application deadline is on Tuesday 25.9. at 12:00 to Pasi Liljeberg (pasi.liljeberg [at] utu.fi).**

Students are credited according to their participation 10-15 credit points.

### Objectives

Student is capable of working in projects. During this course student will enhance key process skills such as project management and teamwork, and develop competency in gathering, analyzing, and documenting data (laboratory books, work reports, meeting memos, project progress reports, etc.).

### Contents

Student, as a part of a multidisciplinary student group, participates in a project-based work aiming to define a solution to an industry-based problem, is involved in the action to implement the solution and takes part in documenting the project results.

The goal of the project is to design and implement a working prototype of a **liquid dispenser**, which is capable to **filling tubes** (see picture above) **with a liquid**, moving those tubes in an appropriate way, **cap filled tubes** and if it can be done also **label the tubes**. The competences required vary from embedded system design, electronics, automation, pumping expertise, programming, to knowledge about IVD requirements. Please note that individual student does not need to master all of these requirements, skills in one of the mentioned fields at the beginning of the project is enough.

### Other

If any question may arise contact Pasi Liljeberg (pasi.liljeberg [at] utu.fi).