

# STL Capstone Project Description - Spring 2015

For this Software Engineering Capstone course, STL seeks a development team to design and implement solutions to the two problems described above. The first, and more important, issue is to be able to accurately project and track faculty and student salary costs against project budgets. The second goal is to be able to provide an estimate of the amount of returned overhead that will be generated on an annual basis given the amount of sponsored research projects undertaken by the lab. Additional details are given below.

Enrollment in this course is limited and is by permission of the STL leads. To be considered, send statement of interest and a resume to Mark Howard, mah@stl.vt.edu.

## **Problem Descriptions**

Software Technologies Laboratory (STL) is a soft-funded center within the Industrial and Systems Engineering department. The laboratory operates through various government sponsored research, private industry contracts, and various Virginia Tech funded internal projects.

With a full-time staff of nine developers and lab support personnel as well as ten student developers, one of the major challenges STL faces is assigning proper personnel to the appropriate projects in a cost-effective manner while delivering high-quality software. At present, the University does not have any tools to allow projections of effort against fund numbers (projects) for the purpose of determining (a) how to ensure soft-funded faculty members are paid and (b) a long-term spending curve across all funds for the laboratory can be graphically displayed.

In addition, each sponsored research project has a Facilities and Administrative amount, commonly referred to as overhead, associated with it. Part of this amount is returned to the department, and ultimately to STL as a means to pay annual rent and administrative expenses. As this rate differs somewhat across projects, it is difficult to accurately project the amount of returned overhead funding STL may receive during the course of a year.

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