

**CS-UY 4523 (1176): Design Project II**

**Spring 2015**

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**Project Proposal**

Course: **CS-UY-4523**

Semester: **Spring 2015**

Advisor: **Professor Fred Strauss**

Project Name: **Integrated University Department Information System**

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| **Date** | **Revision Number** | **Purpose** |
| 9/23/2014 | Version 1.0 | Initial Release |
| 10/7/2014 | Version 1.1 | Added cover and deliverables |
| 2/7/2015 | Version 1.2 | Minor alterations to client requirements |

**Integrated University Department Information System**

University computer science and engineering departments usually have budgets, which are comparable with small companies, thus an integrated system to support all aspects of departmental administration is required. This system should support student records, laboratory administration, the ordering of goods and services, and the management of account receivable and payable. It should be linked to a wider University system responsible for staff salaries, student transcripts, etc.

**Project Motivation**

We would like to execute this project to help universities organize their systems. Current systems at various universities are very sluggish and separated. Our intention is to make a new information system that is faster, have a much slicker user interface than the outdated and archaic systems while combining the interface for the registrar and bursar systems. Our hope is to make it easier for students to access their records. Simultaneously, we want it to be easy for staff and faculty to use the system for submitting grades and managing financial information. We hope that if a university’s department chooses to use this system, all other university departments will choose to use it to make registration and bursar management easier across university schools and school’s departments.

**General Requirements**

Priority is placed on visual beauty and ease of accessing this system. However, security is a major factor and permissions should depend on the individual. This system represents only a department’s information and relative cost should be able to reflect on the bigger University system in which it is integrated into.

**User/Client Requirements**

* Departmental Chair who uses such a system is usually very busy, therefore the system should have appropriate and necessary links to make accessibility faster.
* Even if people are computer illiterate, they require a system with a straightforward user interface.
* System users range from secretaries to technicians to administrative staff to professors and students. The range of users to be supported should be very wide and independent for the individual user based on profession.
* System must support registration that integrates with University’s system.
  + A catalog that incorporates departmental classes offered should be included
* Profiles for individuals and inventories must be made available and easy to use especially when integrated with the University’s system.
  + Professor/Student/Administrative representative category must include:
    - A display of credentials
    - A display of classes relative to person and associated cost relative to the department
    - Requests for needs associated only with the department
    - A display of what professors/students can access/register for
    - Permissions to goods and services
    - Financial information (total and current cost included)
      * Account receivable and payable management system
  + Laboratory administration category must include:
    - Requests for needs
    - A display of participating students
    - Financial information (total and current cost included)
      * Account receivable and payable management system
  + Profiling of goods and services category must include:
    - Associated vendors’ information
    - Associated individual that it is servicing
    - Financial information (total and current cost included)
      * Account receivable and payable management system

**Technical Requirements**

* Universities are dynamic and flexible organizations with constantly changing organizational structure. The system must be able to be adaptable to handle future, unforeseen tasks.
* Sub-systems should be automatically linked. For example, the costs of a particular class or laboratory can be computed by considering payments made and received by students.
* System must support modernization of software.
  + Software must be attractive.
  + Loading materials and other interactions must happen seamlessly.
  + Demand for more categories other than what is presented above in User/Client Requirements must be supported.
* Commands given by users must have integration to other applications to ease the conversion of mundane things such as calendar, email, etc.
  + Popular service add-ons may include Google services.
  + Account receivable and payable management system
* Database
  + Permissions to database must differ depending on individual. Different sets of permissions must be assigned to all individuals. A strong security is necessary.
  + All permission must be granted by the University’s system to use its database.

**Project Deliverables:**

Project Team Selection Form February 6, 2015

Project Proposal February 13, 2015

Requirements and Analysis Specification (RAS) February 27, 2015

Software Project Management Plan (SPMP) March 6, 2015

Software Design Description (SDD) - Initial March 20, 2015

Software Design Description (SDD) - Final April 17, 2015

Implementation/Demonstration April 24, 2015 - May 4, 2015

Formal Oral Presentation April 24, 2015 - May 4, 2015

Project Portfolio April 24, 2015 - May 4, 2015