

# **LUNAR™ System**

## **Requirements Document**

### **Version 1.0**

### **September 12, 2009**

#### **Purpose of System**

LUNAR (Lightweight University Networked Academic Records) is a Web-based application for course registration, roster management, and grading in a higher education setting. Registrars can use the system to create new courses, assign faculty and students to courses, view student information, and create and manage user accounts. Faculty can use the system to manage class rosters and manage final grades for students in any of their current or previous courses. Students can use the system to search for classes, enroll in courses, and view their grades for any courses that they are currently taking or have previously taken.

#### **Related Documents**

1. Suggested Outline of a Specification Document
2. Suggested Outline of a Design Document
3. Suggested Outline of a Test Plan Document

#### **Information to be Contained in the System**

1. The system shall maintain a list of current and previously offered courses. Each course instance is described by the following information:
  - a. A unique course ID number
  - b. A catalog number consisting of the course's department and number (e.g., "CSE 308")
  - c. The semester and year in which the course will be offered
  - d. The name of the faculty member assigned to teach the course
  - e. The number of credits assigned to the course
  - f. The location where the course will be held
  - g. The maximum enrollment capacity of the course
  - h. An optional prerequisite for the course (catalog number, not course ID)
  - i. A list of the students who are enrolled in the course
  - j. A list of final grades for the students who are enrolled in the course
2. The system shall maintain a pool of unique user IDs
3. The system shall maintain a list of university registrar users. Each registrar user is described by the following information:
  - a. A unique registrar ID number (drawn from the user ID pool)
  - b. The registrar user's password for the LUNAR system

4. The system shall maintain a list of university faculty members. Each faculty member is described by the following information:
  - a. A unique faculty ID number (drawn from the user ID pool)
  - b. The faculty member's name
  - c. The faculty member's password for the LUNAR system
  - d. A list of all courses that the faculty member has taught (including the current semester)
5. The system shall maintain a list of university students. Each student is described by the following information:
  - a. A unique student ID number (drawn from the user ID pool)
  - b. The student's name
  - c. The student's password for the LUNAR system
  - d. The total number of credits that the student has earned (including credits for all courses in the current semester)
  - e. A list of all courses that the student has taken (by catalog number, not course ID)
  - f. A list of final grades earned by the student

### **Required Functionality**

The system must provide the following functions:

1. Students must be able to perform the following tasks:
  - a. Log into and out of the system
  - b. View the list of courses in which that student is currently enrolled or has taken previously
  - c. Search for a given course by course ID number, catalog number, semester and year, number of credits, availability (meaning that the course still has open seats), and/or prerequisite.
  - d. Enroll in a course that has not reached its maximum enrollment, as long as the student has satisfied that course's prerequisite
  - e. Drop a course that the student is currently taking
  - f. View (but not modify) all grades that have been assigned to that student
2. Faculty members must be able to perform the following tasks:
  - a. Log into and out of the system
  - b. View the list of courses assigned to that faculty member
  - c. View the list of students enrolled in a given course
  - d. Assign final grades to the students enrolled in a given course for the current semester
  - e. View (but not modify) final grades assigned to students in a given course from a previous semester

3. Registrar users must be able to perform the following tasks:
  - a. Log into and out of the system
  - b. Manage registrar user accounts:
    - i. Create new registrar user accounts (specifying the ID number and password)
    - ii. Reset the password for a registrar user account
    - iii. Delete a registrar user account
  - c. Manage faculty member accounts:
    - i. Create new faculty member accounts (specifying the ID number, name, and password)
    - ii. Reset the password for a faculty member account
    - iii. Change the name on a faculty member account
    - iv. Delete a faculty member account
  - d. Manage student accounts:
    - i. Create new student accounts (specifying the ID number, name, and password)
    - ii. Reset the password for a student account
    - iii. Change the name on a student account
    - iv. Delete a student account
  - e. Manage courses:
    - i. Add a new course to the system
    - ii. Modify the attributes of a given course
    - iii. Assign a faculty member to a given course
    - iv. Enroll a student in a course that has not reached its maximum enrollment, as long as the student has satisfied that course's prerequisite
    - v. Remove a student from a course that is currently being taught
  - f. View course information
    - i. View the list of courses being offered during a given semester
    - ii. View the list of courses and final grades for a given student
    - iii. View the list of courses assigned to a given faculty member

### **System Issues**

1. The system must work for both the Firefox and Internet Explorer Web browsers.
2. The system must not contain operating-system-specific technologies like ActiveX; it must work on Linux, Macintosh OS X, and Windows versions of the browsers listed above.

## **Deliverables**

Unless otherwise specified, all deliverables are due by 5:00 PM on the associated date. Wherever possible, deliverables should be submitted via Blackboard.

### **1. Friday, September 11**

- a. Introductory letter on company stationery, giving your company name, the names of company members, and the names and e-mail addresses of your company's Product Manager and QA Manager
- b. After this date, each company must submit a weekly progress report every Monday for the rest of the semester. The progress report must say what each company member did during the previous week for this project.

### **2. Friday, September 18**

- a. An issues document discussing issues that have come up when your company analyzed the requirements document

### **3. Friday, October 2**

- a. Specification document

### **4. Friday, October 16**

- a. User manual

### **5. Friday, October 30**

- a. Design document

### **6. Friday, November 20**

- a. Compilable source code (first version)

### **7. Friday, December 4**

- a. Test plan

### **8. December 14–18 (times to be chosen for each group)**

- a. Formal demonstration of project to the customer
- b. As-built version of specification document, user manual, design document, test plan, and source code