Purpose

The goal of the project is to provide a tool to increase the level of interaction and engagement between undergraduate students and post-graduate students with course, subject and department related information. The system will further provide additional avenues for disseminating information related to chemistry programmes and courses. The system will act as a model for engaging students within the faculty through technology.

Background

Within the Department of Chemistry, Lecturers and the administrative staff has sought for methods of increasing student awareness and engagement in information related to their degree and future progression. However despite several attempts to provide information to students in various forms and through different mediums, gaps in student knowledge and engagement persists.

Students have become desensitized to notices, rarely check their institution email accounts and may not pay attention to important announcements made during class hours. This knowledge deficit often results in wasted time repeating information, inefficient course management and disgruntled students.

However, students suggested that utilizing mobile technology may represent an opportunity to target individual students within the department. Mobile technologies enable direct and personalized access to students which if harnessed appropriately can provide tremendously value to address problems highlighted previously.

The Department of Chemistry has requested a collaborative engagement with the Department of Computing and Information Technology (DCIT) to develop a platform that can support these broad goals and objectives. The project will be developed through student-based projects with technical input and guidance of the Campus Information Technology Services (CITS).

Scope

The solution will utilize web-based and cloud technologies to ensure the widest cross platform compatibility for the development of mobile applications for the student population of the department. Specifically, the application that utilize the features available within the Android and iOS mobile environment to produce a rich and engaging experience based on information of the chemistry department and subject in general. The system will also provide an administrative interface that will facilitate the management of information, notices and resources provided for student consumption.

The system will be developed in a phased but agile approach over the course of two semesters. With the COMP3550 Internet Technologies II course, students will develop the foundational elements needed by the application and future improvements and features are developed within the course COMP3990 Project.

This document highlights a guiding set of requirements for the development of the first iteration of the system to be completed within the first semester of the academic year 2017/2018. A future revision and specification will be a part of the expected deliverable of the COMP3990 course.

General Requirements

The following provides the general requirements of the software solution based on discussions between the Department of Chemistry and the Department of Computing and Information Technology.

The web-based mobile application (**MAP**) will:

1. **MAP1** – Provide summary of courses for each available degree option
2. **MAP2 –** Provide up-to-date and detailed course outlines
3. **MAP3 –** Provide reminders for events within the course calendar (focused on assignments and notices, students must add courses themselves for population to occur)
4. **MAP4 –** Provide notification of updates to course events
5. **MAP5 –** Provide links to useful course related resources (external to UWI)
6. **MAP6 –** Provide links to useful profession (chemistry) related resources
7. **MAP7 –** Provide information about opportunities and services offered by the department
8. **MAP8 –** Provide a token-based form of authentication

The administrator system (**ADAP**) will:

1. **ADAP1 –** Enable the management of course listing
2. **ADAP2 –** Enable the management of course calendar of events
3. **ADAP3 –** Enable the delivery of notification for specific courses
4. **ADAP4 –** Add and classify links and resource for courses
5. **ADAP5 –** Add and classify links and resource for entire department

Product Perspective

System Interface

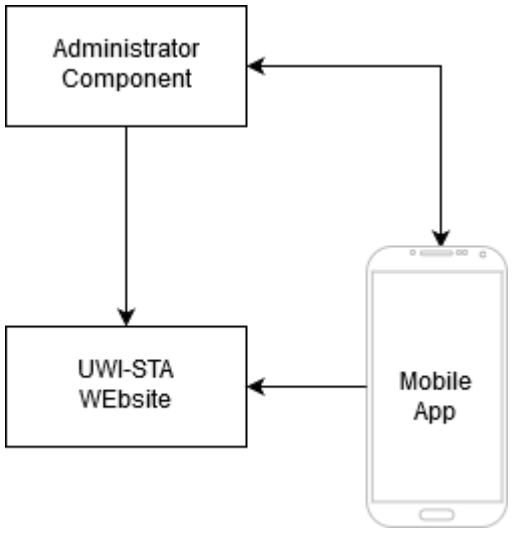

Figure 1 - Overview of System Components

Courses	Meet our people	Lab Info	Your Chemistry	Assignment Calendar
•Brief Descriptions •Course tutors •Program Progression trees •Staff Student Liason Meeting info •Course evaluation reminders	•Profiles of Staff •CHEM IA info •Student Reps	•General info •Updates & reminders	•Molecule of the week •External Chem resources •Article/Book Chapter of the month •Seminars	•First year calendars •Semester I CHEM1066, CHEM1070 •Semester II CHEM1067, CHEM1068, CHEM1070

User Interfaces

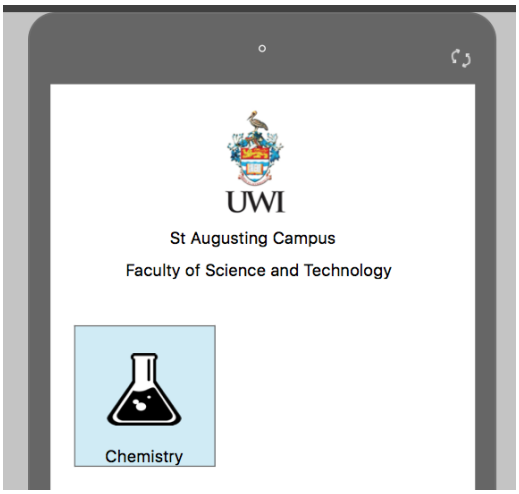

Figure 3 - Listing for Departments

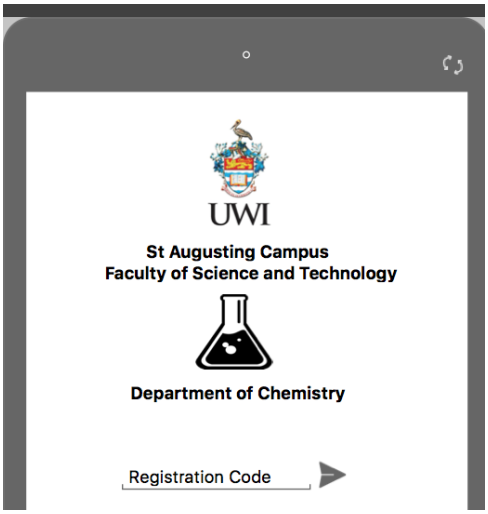

Figure 2 - Registration Code for Students

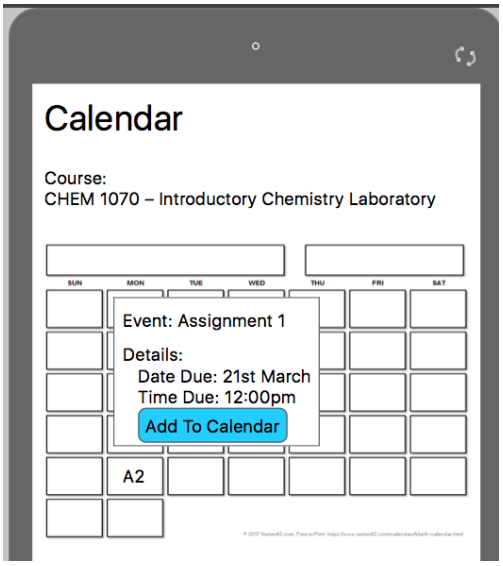

Figure 5 - Calendar of Events with Details

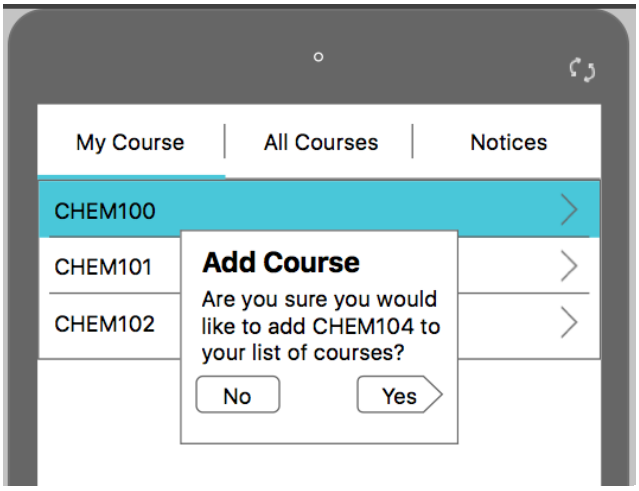

Figure 4 - Subscribe to Course