**Design Document**

**For**

**Dragon Course Scheduler**

**Prepared by**

Nathan Gelfant,

Kevin Huang,

Stan Kolakowski,

Mark Scheid

**At**

**Drexel University**

Design Document Revisions History

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| --- | --- | --- | --- |
| **Date** | **Description** | **Version** | **Editor(s)** |
| 2/25/2013 | Document created. | 1.0 | Nathan Gelfant, Kevin Huang, Stan Kolakowski, Mark Scheid |
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# 1. Introduction

## 1.1 Purpose

## 1.2 Intended Audience

The intended audience for this document are designers, developers and testers of the Dragon Course Scheduler.

## 1.3 Scope

The scope of this design document is to describe the design and architectural details of the Dragon Course Scheduler beta release, intended audience of this document is for the developer and tester and reviewer of this software.

## 1.4 Definitions, Acronyms, and Abbreviations

### 1.4.1 Definitions

**Browser:** A piece of client side software, such as Firefox or Internet Explorer, capable of displaying web pages written in HTML, CSS and JavaScript code, as well as running java applets.

**Class Selection Interface:** A web page through which the user views the list of available classes for the selected term based upon their previously entered courses.

**Concentration:** Also referred to as "tracks", will be major specific information required or defined by Drexel.

**Database:** A database is a structured collection of data that is organized for later retrieval.

**Dependent classes:** Classes which require the course in question as a prerequisite.

**Prerequisites table:** A table in the database that is populated based on Drexel Course Catalog, detailing what courses are necessary before one can register for a given class.

**Program:** The java backend that manages data flow between the interfaces and the database.

**Selected Schedule Interface:** A web page through which the user views their current weekly plan of classes for the selected term.

**Server:** A content hosting system that will deliver content to end users and host aggregated information.

**TMS Synchronizer:** The server-side tool that automatically updates the database with available course information and major concentration definitions.

**User-Background Interface:** A web page through which the user can input their major, concentrations, and the list of classes they have already taken.

**User-History Object (UHO)** The user history object contains a data structure capable of holding information containing all previous classes completed by the user, as well as the currently selected list of classes for the scheduled terms.

### 1.4.2 Abbreviations

**DCS** Dragon Course Scheduler

**CRN** Course Reference Number

**JRE** Java Runtime Environment

**JVM** Java Virtual Machine

**TBD** To be dated

**TBA** To be announced

**TMS** Term Master Schedule

## 1.5 Context Diagram

# 2. Architecture

## 2.1 Overview

The general architecture of the Dragon Course Scheduler is MVC (Model, View, Controller) structure. This simple and

## 2.2 Survey of Technologies Used

## 2.3 Presentation Layer Components

## 2.4 Business Layer Components

2.7 Data Layer Components

2.8 External Components

# 3. Design Features

# 4. Database Design