

U of S Course Planner Database

***All tables are currently limited to data pertaining to Computer Science Undergraduate Degrees

**It is implied that all PRIMARY KEYS must be unique and not null

**It is implied that all FOREIGN KEYS must be not null

*(ex. ...) represents an example of a potential value entry

*(ie. ...) represents an explanation of what an entry might refer to

*Blue for changes from original design

TABLE: Courses

- Contains all courses offered at the University of Saskatchewan

Column Name	Data Type	Details
SubjectCode	NCHAR(4)	<ul style="list-style-type: none">- PRIMARY KEY 1/2- 4 letter code for the course subject (ex. CMPT)
CourseCode	INTEGER	<ul style="list-style-type: none">- PRIMARY KEY 2/2- 3 number code for the specific course in the subject- Within the range of 100-999
CourseName	TEXT	<ul style="list-style-type: none">- Title name of the course
Description	TEXT	<ul style="list-style-type: none">- A brief description of the course and what subject matter it will be covering

TABLE: CreditConflicts

- Contains all courses that have conflict courses in terms of earning credit for taking them, and what those conflicts are

Column Name	Data Type	Details
CreditConflictID	INTEGER	<ul style="list-style-type: none">- PRIMARY KEY- Surrogate key, arbitrary increasing integers
SubjectCode	NCHAR(4)	<ul style="list-style-type: none">- FOREIGN KEY; see Courses table- The course subject that has a conflict- (1) Upon update or deletion of the primary key referenced, any rows with that key will be updated/deleted from CreditConflicts accordingly to reflect the change
CourseCode	INTEGER	<ul style="list-style-type: none">- FOREIGN KEY; see Courses table- The numerical code for a specific course that has a conflict- See (1) above
ConflictSubjectCode	NCHAR(4)	<ul style="list-style-type: none">- FOREIGN KEY; see Courses table- The course subject that is a conflict

		<ul style="list-style-type: none"> - (2) Upon update or deletion of the primary key referenced, no change will be made, due to previous completion of the course still being a potentially valid conflict. May need to be changed manually if further action is required.
ConflictCourseCode	INTEGER	<ul style="list-style-type: none"> - FOREIGN KEY; see Courses table - The numerical code for a specific course that is a conflict - See (2) above
ConflictType	TEXT	<ul style="list-style-type: none"> - Brief categorization of the type of conflict - Entered values can only be 'Regular', 'Previous Name', 'Other'

TABLE: Degrees

- Contains the degrees offered at the University of Saskatchewan, potentially with a backlog of discontinued courses

Column Name	Data Type	Details
ProgramName	TEXT	<ul style="list-style-type: none"> - PRIMARY KEY 1/2 - Name of the overall program/subject to be studied (ex. Computer Science, Accounting, etc.)
Degree	TEXT	<ul style="list-style-type: none"> - PRIMARY KEY 2/2 - Name of the specific degrees offered for a program (ex. Bachelor of Science Honours)
SchoolingLevel	TEXT	<ul style="list-style-type: none"> - Level of schooling for the degree - Entered values must be 'Undergraduate', 'Graduate', or 'Non-Degree Certificate'
RequirementsType	TEXT	<ul style="list-style-type: none"> - How the requirements for the degree are organized - Entered values must be either 'ByYear' (ie. Year 1, Year 2, etc.) or 'ByCategory' (ie. C4 Major Requirement, C1, C2, etc.)
CurrentlyOffered	INTEGER	<ul style="list-style-type: none"> - A binary mark of whether or not the listed degree is the most current in regards to required courses - Must be not null, Default is 1 - Values must be either 0 (no, not currently offered) or 1 (yes, currently offered) - In progress: theoretically, old degree checklists could be updated with a date/semester timeframe to represent when it was current, and DegreeRequirements entries changing accordingly, then the changes entered

TABLE: DegreeRequirements

- Contains what courses are required for each degree in the database

- Shows lists of potential required courses for each given category of the degree's requirements
- Potentially with a backlog of previously offered requirements for that degree that have since been changed

Column Name	Data Type	Details
DegreeReqID	INTEGER	<ul style="list-style-type: none"> - PRIMARY KEY - Surrogate key, arbitrary increasing integers
ProgramName	TEXT	<ul style="list-style-type: none"> - FOREIGN KEY; see Degrees table - (1) Upon update of the primary key referenced, any rows with that key will be updated in DegreeRequirements accordingly - (2) Deletion of the primary key referenced is restricted, given the high volume of data associated with requirements, as well as how often older versions of degree requirements remain in use by continuing students for some years after
Degree	TEXT	<ul style="list-style-type: none"> - FOREIGN KEY; see Degrees table - See (1) and (2) above
SubjectCode	NCHAR(4)	<ul style="list-style-type: none"> - FOREIGN KEY; see Courses table - The course subject that is on a list of (possible) required courses to complete the specifies degree - (3) Upon update or deletion of the primary key referenced, any rows with that key will be updated/deleted from DegreeRequirements accordingly to reflect the change
CourseCode	INTEGER	<ul style="list-style-type: none"> - FOREIGN KEY; see Courses table - The numerical code for a specific course that is on a list of (possible) required courses to complete the specifies degree - See (3) above
RequirementGroup	TEXT	<ul style="list-style-type: none"> - In what section of the requirements type the course belongs to (ex. C1, C2, C3, B1, Year 1, Year 2, etc.)
ReqStatus	TEXT	<ul style="list-style-type: none"> - A means to separate lists of requirements that ask for a certain number of courses to be selected from that list to fulfill the requirement, with letters at the end to separate different lists that ask for the same number of courses within a requirement group. (ex. 1ofa, 1ofb, 2Ofa)

TABLE: Prerequisites

- Contains all courses that have prerequisite courses, and what those prerequisites are

Column Name	Data Type	Details
PrerequisiteID	INTEGER	<ul style="list-style-type: none"> - PRIMARY KEY - Surrogate key, arbitrary increasing integers

SubjectCode	NCHAR(4)	<ul style="list-style-type: none"> - FOREIGN KEY; see Courses table - The course subject that has a prerequisite - (1) Upon update or deletion of the primary key referenced, any rows with that key will be updated/deleted from CreditConflicts accordingly to reflect the change
CourseCode	INTEGER	<ul style="list-style-type: none"> - FOREIGN KEY; see Courses table - The numerical code for a specific course that has a prerequisite - See (1) above
PrerequisiteSubjectCode	NCHAR(4)	<ul style="list-style-type: none"> - FOREIGN KEY; see Courses table - The course subject that is a prerequisite - (2) Upon update or deletion of the primary key referenced, no change will be made, due to previous completion of the course still being a potentially valid prerequisite. May need to be changed manually if further action is required.
PrerequisiteCourseCode	INTEGER	<ul style="list-style-type: none"> - FOREIGN KEY; see Courses table - The course subject that is a prerequisite - See (2) above
OneOf	INTEGER	<ul style="list-style-type: none"> - If prerequisite courses are only required to be one of a selection of two or more, they will be given the same integer in this column
TwoOf	INTEGER	<ul style="list-style-type: none"> - If prerequisite courses are only required to be two of a selection of three or more, they will be given the same integer in this column
Outliers	TEXT	<ul style="list-style-type: none"> - Temporary, for identifying difficult to pigeonhole data and why, notes of a sort

TABLE: Users

- A record of all users to have registered an account, with usernames and passwords

Column Name	Data Type	Details
UserID	INTEGER	<ul style="list-style-type: none"> - PRIMARY KEY - Surrogate key, arbitrary increasing integers
Username	TEXT	<ul style="list-style-type: none"> - The username of the user's account given at registration - Must be unique and not null - Can be changed
Password	TEXT	<ul style="list-style-type: none"> - The password of the user's account given at registration - Must be unique and not null - Can be changed

TABLE: TestCompletedList

- Test version of list made to hold courses saved as completed for a specified user
- 'Test' in 'TestCompletedList' would be replaced by a UserID

Column Name	Data Type	Details
CompletedCourseID	INTEGER	<ul style="list-style-type: none">- PRIMARY KEY- Surrogate key, arbitrary increasing integers
SubjectCode	NCHAR(4)	<ul style="list-style-type: none">- FOREIGN KEY; see Courses table- The course subject that has been saved as a 'completed' by the student to whom this list belongs- (1) Upon update or deletion of the primary key referenced, any rows with that key will be updated/deleted from TestCompletedList accordingly to reflect the change
CourseCode	INTEGER	<ul style="list-style-type: none">- FOREIGN KEY; see Courses table- The numerical code for a specific course that has been saved as a 'completed' by the student to whom this list belongs- See (1) above

TABLE: TestFavouriteList

- Test version of list made to hold courses saved as favourited for a specified user
- 'Test' in 'TestFavouriteList' would be replaced by a UserID

Column Name	Data Type	Details
FavouriteID	INTEGER	<ul style="list-style-type: none">- PRIMARY KEY- Surrogate key, arbitrary increasing integers
SubjectCode	NCHAR(4)	<ul style="list-style-type: none">- FOREIGN KEY; see Courses table- The course subject that has been saved as a 'favourite' to be referenced later by the user to whom this list belongs- (1) Upon update or deletion of the primary key referenced, any rows with that key will be updated/deleted from TestFavouriteList accordingly to reflect the change
CourseCode	INTEGER	<ul style="list-style-type: none">- FOREIGN KEY; see Courses table- The numerical code for a specific course that has been saved as a 'favourite' to be referenced later by the user to whom this list belongs- See (1) above