# Student Database Schema

### **Table and Column Descriptions**

COURSE: Information for a course

| COLUMN NAME   | NULL     | TYPE         | DESCRIPTION   |
|---------------|----------|--------------|---|
| COURSE_NO     | NOT NULL | NUMBER(8, 0) | The unique course number  |
| DESCRIPTION   | NULL     | VARCHAR2(50) | The full name of this course  |
| COST          | NULL     | NUMBER(9,2)  | The dollar amount charged for enrollment in this course                         |
| PREREQUISITE  | NULL     | NUMBER(8, 0) | The ID number of the course that must be taken as a prerequisite to this course |
| CREATED_BY    | NOT NULL | VARCHAR2(30) | Audit column—indicates who inserted data  |
| CREATED_DATE  | NOT NULL | DATE         | Audit column—indicates the date of insertion                                    |
| MODIFIED_BY   | NOT NULL | VARCHAR2(30) | Audit column—indicates who made the last update                                 |
| MODIFIED_DATE | NOT NULL | DATE         | Audit column—date of the last update  |

SECTION: Information for an individual section (class) of a particular course

| COLUMN NAME     | NULL     | TYPE         | DESCRIPTION  |
|-----------------|----------|--------------|--|
| SECTION_ID      | NOT NULL | NUMBER(8,0)  | The unique ID for a section                              |
| COURSE_NO       | NOT NULL | NUMBER(8,0)  | The course number for which this is a section            |
| SECTION_NO      | NOT NULL | NUMBER(3)    | The individual section number within this course         |
| START_DATE_TIME | NULL     | DATE         | The date and time when this section meets                |
| LOCATION        | NULL     | VARCHAR2(50) | The meeting room for the section                         |
| INSTRUCTOR_ID   | NOT NULL | NUMBER(8,0)  | The ID number of the instructor who teaches this section |

| COLUMN NAME   | NULL     | TYPE         | DESCRIPTION  |
|---------------|----------|--------------|--|
| CAPACITY      | NULL     | NUMBER(3,0)  | The maximum number of students allowed in this section |
| CREATED_BY    | NOT NULL | VARCHAR2(30) | Audit column—indicates who inserted data               |
| CREATED_DATE  | NOT NULL | DATE         | Audit column—indicates the date of insertion           |
| MODIFIED_BY   | NOT NULL | VARCHAR2(30) | Audit column—indicates who made the last update        |
| MODIFIED_DATE | NOT NULL | DATE         | Audit column—date of the last update                   |

### STUDENT: Profile information for a student

| COLUMN NAME       | NULL     | TYPE         | DESCRIPTION  |
|-------------------|----------|--------------|--|
| STUDENT_ID        | NOT NULL | NUMBER(8,0)  | A unique ID for the student                            |
| SALUTATION        | NULL     | VARCHAR2(5)  | This student's title (Ms., Mr., Dr.)                   |
| FIRST_NAME        | NULL     | VARCHAR2(25) | This student's first name                              |
| LAST_NAME         | NOT NULL | VARCHAR2(25) | This student's last name                               |
| STREET_ADDRESS    | NULL     | VARCHAR2(50) | This student's street address                          |
| ZIP               | NOT NULL | VARCHAR2(5)  | This student's zip code                                |
| PHONE             | NULL     | VARCHAR2(15) | This student's phone number, including area code       |
| EMPLOYER          | NULL     | VARCHAR2(50) | The name of the company where this student is employed |
| REGISTRATION_DATE | NOT NULL | DATE         | The date this student registered in the program        |
| CREATED_BY        | NOT NULL | VARCHAR2(30) | Audit column—indicates who inserted data               |
| CREATED_DATE      | NOT NULL | DATE         | Audit column—indicates the date of insertion           |
| MODIFIED_BY       | NOT NULL | VARCHAR2(30) | Audit column—indicates who made the last update        |
| MODIFIED_DATE     | NOT NULL | DATE         | Audit column—date of the last update                   |

## ENROLLMENT: Information for a student registered for a particular section of a particular course (class)

| COLUMN NAME | NULL     | TYPE        | DESCRIPTION                                       |
|-------------|----------|-------------|---|
| STUDENT_ID  | NOT NULL | NUMBER(8,0) | The ID for a student                              |
| SECTION_ID  | NOT NULL | NUMBER(8,0) | The ID for a section                              |
| ENROLL_DATE | NOT NULL | DATE        | The date this student registered for this section |

| <b>COLUMN NAME</b> | NULL     | TYPE         | DESCRIPTION  |
|--------------------|----------|--------------|--|
| FINAL_GRADE        | NULL     | NUMBER(3,0)  | The final grade given to this student for all the work in this section (class) |
| CREATED_BY         | NOT NULL | VARCHAR2(30) | Audit column—indicates who inserted data                                       |
| CREATED_DATE       | NOT NULL | DATE         | Audit column—indicates the date of insertion                                   |
| MODIFIED_BY        | NOT NULL | VARCHAR2(30) | Audit column—indicates who made the last update                                |
| MODIFIED_DATE      | NOT NULL | DATE         | Audit column—date of the last update   |

#### INSTRUCTOR: Profile information for an instructor

| <b>COLUMN NAME</b> | NULL     | TYPE         | DESCRIPTION   |
|--------------------|----------|--------------|---|
| INSTRUCTOR_ID      | NOT NULL | NUMBER(8)    | The unique ID for an instructor                     |
| SALUTATION         | NULL     | VARCHAR2(5)  | This instructor's title (Mr., Ms., Dr., Rev.)       |
| FIRST_NAME         | NULL     | VARCHAR2(25) | This instructor's first name                        |
| LAST_NAME          | NULL     | VARCHAR2(25) | This instructor's last name                         |
| STREET_ADDRESS     | NULL     | VARCHAR2(50) | This instructor's street address                    |
| ZIP                | NULL     | VARCHAR2(5)  | This instructor's zip code                          |
| PHONE              | NULL     | VARCHAR2(15) | This instructor's phone number, including area code |
| CREATED_BY         | NOT NULL | VARCHAR2(30) | Audit column—indicates who inserted data            |
| CREATED_DATE       | NOT NULL | DATE         | Audit column—indicates the date of insertion        |
| MODIFIED_BY        | NOT NULL | VARCHAR2(30) | Audit column—indicates who made the last update     |
| MODIFIED_DATE      | NOT NULL | DATE         | Audit column—date of the last update                |

### ZIPCODE: City, state, and zip code information

| COLUMN NAME   | NULL     | TYPE         | DESCRIPTION                                     |
|---------------|----------|--------------|---|
| ZIP           | NOT NULL | VARCHAR2(5)  | The zip code, unique for a city and state       |
| CITY          | NULL     | VARCHAR2(25) | The city name for this zip code                 |
| STATE         | NULL     | VARCHAR2(2)  | The postal abbreviation for the U.S. state      |
| CREATED_BY    | NOT NULL | VARCHAR2(30) | Audit column—indicates who inserted data        |
| CREATED_DATE  | NOT NULL | DATE         | Audit column—indicates the date of insertion    |
| MODIFIED_BY   | NOT NULL | VARCHAR2(30) | Audit column—indicates who made the last update |
| MODIFIED_DATE | NOT NULL | DATE         | Audit column—date of the last update            |

GRADE\_TYPE: Lookup table of a grade type (code) and its description

| COLUMN NAME     | NULL     | TYPE         | DESCRIPTION  |
|-----------------|----------|--------------|--|
| GRADE_TYPE_CODE | NOT NULL | CHAR(2)      | The unique code that identifies a category of grade (such as MT or HW) |
| DESCRIPTION     | NOT NULL | VARCHAR2(50) | The description for this code (such as Midterm or Homework)            |
| CREATED_BY      | NOT NULL | VARCHAR2(30) | Audit column—indicates who inserted data                               |
| CREATED_DATE    | NOT NULL | DATE         | Audit column—indicates the date of insertion                           |
| MODIFIED_BY     | NOT NULL | VARCHAR2(30) | Audit column—indicates who made the last update                        |
| MODIFIED_DATE   | NOT NULL | DATE         | Audit column—date of the last update                                   |

GRADE\_TYPE\_WEIGHT: Information on how the final grade for a particular section is computed; for example, the midterm constitutes 50%, the quiz 10%, and the final examination 40% of the final grade

| COLUMN NAME             | NULL     | TYPE         | DESCRIPTION   |
|-------------------------|----------|--------------|---|
| SECTION_ID              | NOT NULL | NUMBER(8)    | The ID for a section  |
| GRADE_TYPE_CODE         | NOT NULL | CHAR(2)      | The code that identifies a category of grade  |
| NUMBER_PER_ SECTION     | NOT NULL | NUMBER(3)    | How many of these grade types can<br>be used in this section (for example,<br>there may be three quizzes) |
| PERCENT_OF_FINAL_ GRADE | NOT NULL | NUMBER(3)    | The percentage that this category of grade contributes to the final grade                                 |
| DROP_LOWEST             | NOT NULL | CHAR(1)      | Is the lowest grade in this type removed when determining the final grade? (Y/N)                          |
| CREATED_BY              | NOT NULL | VARCHAR2(30) | Audit column—indicates who inserted data  |
| CREATED_DATE            | NOT NULL | DATE         | Audit column—indicates the date of insertion  |
| MODIFIED_BY             | NOT NULL | VARCHAR2(30) | Audit column—indicates who made the last update   |
| MODIFIED_DATE           | NOT NULL | DATE         | Audit column—date of the last update  |

GRADE: The individual grades a student received for a particular section (class)

| COLUMN NAME            | NULL     | TYPE           | DESCRIPTION  |
|------------------------|----------|----------------|--|
| STUDENT_ID             | NOT NULL | NUMBER(8)      | The ID for a student   |
| SECTION_ID             | NOT NULL | NUMBER(8)      | The ID for a section   |
| GRADE_TYPE_CODE        | NOT NULL | CHAR(2)        | The code that identifies a category of grade   |
| GRADE_CODE_ OCCURRENCE | NOT NULL | NUMBER(38)     | The sequence number of one grade type for one section. For example, there could be multiple assignments numbered 1, 2, 3, and so on. |
| NUMERIC_GRADE          | NOT NULL | NUMBER(3)      | Numeric grade value (such as 70 or 75)   |
| COMMENTS               | NULL     | VARCHAR2(2000) | Instructor's comments on this grade  |
| CREATED_BY             | NOT NULL | VARCHAR2(30)   | Audit column—indicates who inserted data   |
| CREATED_DATE           | NOT NULL | DATE           | Audit column—indicates the date of insertion   |
| MODIFIED_BY            | NOT NULL | VARCHAR2(30)   | Audit column—indicates who made the last update  |
| MODIFIED_DATE          | NOT NULL | DATE           | Audit column—date of the last update   |

### GRADE\_CONVERSION: Converts a number grade to a letter grade

| <b>COLUMN NAME</b> | NULL     | TYPE         | DESCRIPTION  |
|--------------------|----------|--------------|--|
| LETTER_GRADE       | NOT NULL | VARCHAR(2)   | The unique grade as a letter (A, A-, B+, B, and so on)         |
| GRADE_POINT        | NOT NULL | NUMBER(3,2)  | The number grade on a scale from 0 (F) to 4 (A)                |
| MAX_GRADE          | NOT NULL | NUMBER(3)    | The highest grade number that corresponds to this letter grade |
| MIN_GRADE          | NOT NULL | NUMBER(3)    | The lowest grade number that corresponds to this letter grade  |
| CREATED_BY         | NOT NULL | VARCHAR2(30) | Audit column—indicates who inserted data                       |
| CREATED_DATE       | NOT NULL | DATE         | Audit column—indicates the date of insertion                   |
| MODIFIED_BY        | NOT NULL | VARCHAR2(30) | Audit column—indicates who made the last update                |
| MODIFIED_DATE      | NOT NULL | DATE         | Audit column—date of the last update                           |