

PEMS Programs Module Overview

Relevant Definitions

Classes. The name of the Class appears on the student's transcript. Classes are sometimes called *courses*. However, PEMS does not use the term 'course' in any of its modules. In general, the word 'course' can refer to a specific class, like Algebra 1, or it may also refer to the set of classes that lead to a degree or certificate. For example, "I followed a course at the University in wine making" could mean a series of classes. The word "class" also has a secondary meaning. A student can be in the "second grade class" which would mean all students in a particular classroom. PEMS uses the word class to mean the subject of study for which units are earned, commonly called a course, such as "Algebra I". **A class that is a subject of study for units can have different curriculum that fulfill it.**

Curriculum generally refers to the books and exercises used by the teacher to further the student's knowledge. In Moodle, the curriculum is a Moodle Course. Any class may be taught with multiple curriculum, or different text books, and so there are multiple Moodle courses that may be used to teach a Class.

Subjects are families of classes. For example, Algebra I, Geometry, and Algebra II are all in the subject of Math. Schools can define any subjects they need, and identify any class as belonging to that subject area. Subjects are mainly used to assist the administration in checking the student is meeting requirements when creating a plan .

A **transcript** is a report of completed enrollments. Transcripts are formatted in various ways to use the minimum amount of paper. A transcript shows the classes the student has taken at the school, the grades received and the units earned.

The **plans** are sometimes referred to as "Programs of Study." Plans are defined by the administrator as a series of classes taken across all subjects to meet an educational objective or graduation requirements over a grade span. Any number of plans may be developed, and a student may be assigned only one plan at a time. The plan contains the information needed to auto-enroll student in their classes (create enrollment records) in each term covered by the plan.

Term Labels are the names of the terms a school is running, like Spring, Fall, etc. The number of Term Label records indicates the number of terms the school operates. Term Labels indicate if that term is required or optional, like a summer term.

Enrollment is the process of signing up for a class. An enrollment record in the PEMS is the class as student takes in a specific term, and stores the student's final grade. The set of completed enrollments is the information displayed on the student's transcript.

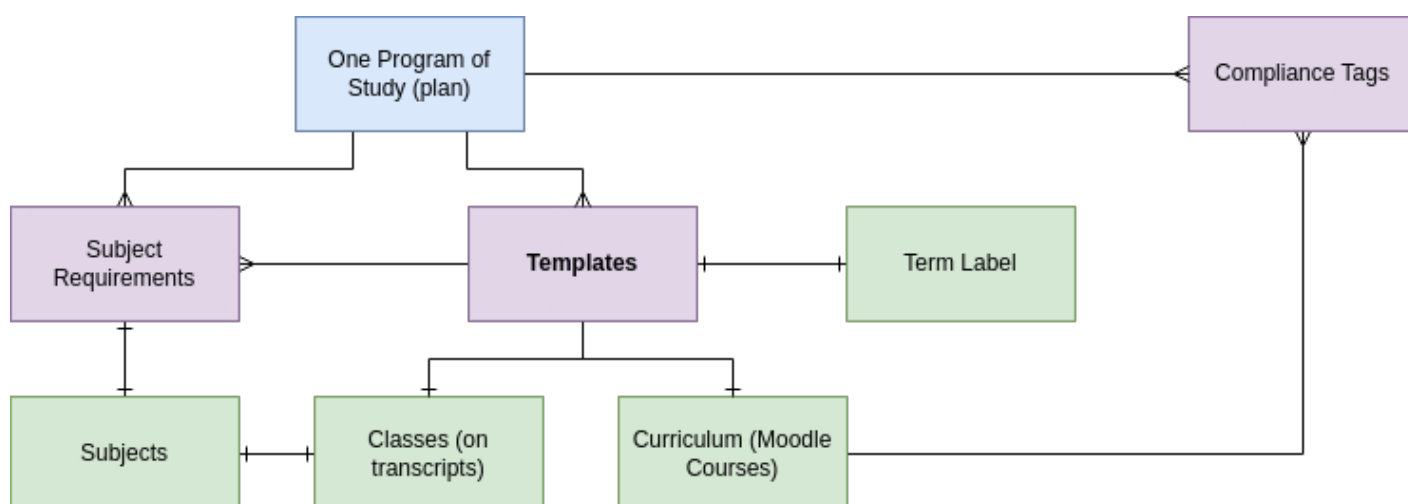
Specific Definitions for the Programs of Study Module

Templates are records that specify the sequence of classes to be taken under the plan. One plan will have multiple templates associated to that plan, each representing a class that must be taken to meet the plan's requirements. A template is a model of a student enrollment record. A template record specifies the class name, the corresponding curriculum, and the term the course should be taken in. PEMS copies all the template records associated with the student's plan to create the enrollment records for that plan. Enrollment records are copies of the template records that are associated with a specific student term (who and when).

Subject requirements are the number of units in total required in a subject area by a regulatory organization. For example, the NCAA may require 4 years of English and 3 years of math. The University of California may require 4 years of English and 4 years of math. The NCAA subject requirement for math is 3 years, the University of California subject requirement for math is 4 years. For University of California, the subject requirement is 4 years, the subject is math. *Note: sometimes requirements are described in 'years' of study, sometimes in credits, and sometimes in units.*

Compliance tags are used to help manage the different requirements of the various regulatory organizations. Not only do the regulatory organizations specify the subject requirements, they also must each approve the course description (syllabus). Students are not allowed to meet the subject requirements with any curriculum, they must meet the requirements with curriculum that has been submitted and approved to the organizations. The student's transcript must then show that the class & curriculum has been approved by the various regulatory organizations. So compliance is a property of the Moodle Course. The Moodle Course list in PEMS is called the curriculum table. There is one record in the curriculum table for each course available in Moodle. PEMS lets the administrator tag certain curriculum records with a compliance tag. If a student takes a class, English 9A, and is enrolled in a specific curriculum, or Moodle Course, the compliance tag from the associated Moodle course will appear on the transcript. Compliance tags are deliberately short to fit on the transcript pages.

Data Relationships



The diagram above shows the relationships for just one plan. A plan will have multiple subject requirements, the number of classes that must be taken in a subject area.

Templates contain information needed for auto-enrollment

The user creates a Plan record, then adds template records to the plan. The template records contains all the information needed to auto-enroll the student in the correct Moodle Course at the right time while ensuring the student's transcript reflects the correct classes. Each template record is also related to one term label record. This information is used to know in which term of the academic year the student should be enrolled in the Moodle Course, and in which term the corresponding class appears on the student's transcript.

- A template record relates the class that appears on the transcript, "English 9A" to the Curriculum list (Moodle Course), "American Literature".
- The class record contains the number of units required for that class, and so the transcript record 'knows' how many units the class has.
- The class is related to one subject, so the template 'knows' the subject of the class.
- The template record is related to one term label record, so the template knows in which term the student should take the class.

Templates contain information needed to determine compliance with the plan

Each template is related to one just class, which is related to just one subject. The template is related to one subject requirement record. The units associated with the set of template records all with the same subject requirement tell us how many of the required units are in the plan. PEMS determines if there are enough classes to meet the requirements of the plan.

Template records create a 'model enrollment' profile for a student according to a specific plan. The student chooses the plan, the model enrollment records (templates) are used to create the student's actual enrollment records.

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