

Programs of Study Function

Relevant Definitions

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.

Student Terms. There is one term record for every term the school operates. A *student term record* contains student-specific information about how the student performed academically in the term, such as the student's grade point average for that term. All the classes a student takes (enrollment records) are linked to the student term. A student has a term record created for each term they are in attendance.

Graduation Requirements

Most jurisdictions require students to take a certain number of units and certain types of classes in order to graduate with a degree. These requirements will be collectively called a program of study. Normally, students meet with a counselor, who explains to them the courses they need to take to meet their educational objectives, then it is the student's responsibility to enroll in the courses. The counselor provides oversight and checks the student is on track. This is time intensive and prone to error. In reality, the specific classes a student takes can be pre-determined based on the educational objective.

The image below shows a portion of information generally found on student transcripts:

The transcript of credits verifies the course of study and grades assigned by parents. GPA is not weighted.						Course Code Legend K = Kolbe Core Course H = Honors Course C = College Course T = Transfer Course * = Course used in GPA Calculation		Cumulative GPA: 3.91 Total Credits: 175.00 Graduation Date: Attendance Record Received: x Course of Study Received: x	
Grade		GPA	Percent		Grade	GPA	Percent		
A+ = 4.0		98-100	C = 2.0		77-79				
A = 4.0		95-97	C- = 1.7		74-76				
A- = 3.7		92-94	D+ = 1.3		71-73				
B+ = 3.3		89-91	D = 1.0		68-70				
B = 3.0		86-88	D- = 0.7		65-67				
B- = 2.7		83-85	F = 0.0		0-64				
C+ = 2.3		80-82	P = Pass						
Standardized Test Scores						Graduation Requirements		Needs	
SAT		Cr	Ma	Wr	MC	Essay	Theology	40	
May 08		720	620	680	78	09	English & Literature	50	
							Literature	20	
							History	30	
							World	10	
							American	10	
							Math	30	
							Algebra 1	10	
							Geometry (or equiv.)	10	
							Algebra 2	10	
							Science	30	
							Biology	10	
							Chemistry	10	
							Physical Science	10	
							Sci (Bio/chem/physics)	2	
							Foreign Language	30	
							2 yrs of Same language	20	
							2nd yr New or Same Lang	10	
							Academic Electives	20	
							Vis/Perf Arts	10	
							PE	20	
							Total	280	
								100	
School Official's Signature (Unofficial unless signed and sealed)						Reviewed by: Academic Advisor		Comments:	
AP SAT II Oct 08: Math I: 620; Literature: 750								Note that comments are deleted prior to sending out official transcript request	
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In the graduation requirements block, the units the student has already taken is shown along side the units the student must still take. An unfortunate disadvantage to allowing students to pick their own classes is that they might not meet all the graduation requirements.

Program of Study

The PEMS was designed to allow administrators to plan out a set of classes (such as Algebra I, World History, English, and so on) that the student will take over a multi-year time frame. Once a student is assigned a plan, there is no need for the student to pick classes every term. The plan itself ensures all requirements and auto-enrollment ensures the student is taking the right courses when they need to. However, plans can be changed and manually adapted as students change their objectives.

The Programs of Study Function provides administrators the ability to pre-plan any number of "programs of study", which are called plans inside of the PEMS. The student can then be assigned a plan, which provides the information needed to auto-enroll the student in classes every term until the plan is complete.

PEMS makes an [enrollment](#) record for every required class under the plan, then relates that enrollment record to the future [student term records](#). The status of future enrollments is 'incomplete.' When the student is ready to be enrolled in the class, PEMS auto-enrolls the student in the Moodle Course required for that class. At the end of term, the grade is updated by the course progress in Moodle and if the score is adequate, course credit is granted.

A plan is not just a list of courses required to meet graduation requirements, a plan sets out which class must be taken in which term.

When students are picking and choosing their classes, many technologies are unable to provide an instant assessment on whether the student will complete their graduation requirements. With this approach, at any point in time, a student's enrollment records can be viewed as a whole. And because each record is marked complete/incomplete, one can immediately assess a student's progress towards their academic goals.

In creating a plan instead of picking individual classes, the administrator can ensure that students are meeting their various requirements for graduation. And by enrolling a student in a plan, the administrator ensures the student meets the requirements.

Multiple Plans

There is no limit to the number of plans that may be created. This allows the PEMS to be deployed in a wide variety of educational systems or allow each school to effectively automate a high degree of customization without having to staff counselor roles.

By creating multiple compliant plans, a school can offer a great deal of customization in the program, while ensuring all requirements are met.

STEM-Focused Program of Study (1 yr)

Term	Requirement	Classes
Fall 2024	Math 1	Geometry 1
		Algebra 1
	Science 1	Biology
		Chemistry 1
	Indian History	Gupta
		Chola Dynasty
Spring 2025	Math 2	Trigonometry 1
		Advanced Trig
	Science 2	Physics 1
		Adv Physics
	Indian Lit	Vedas 101

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