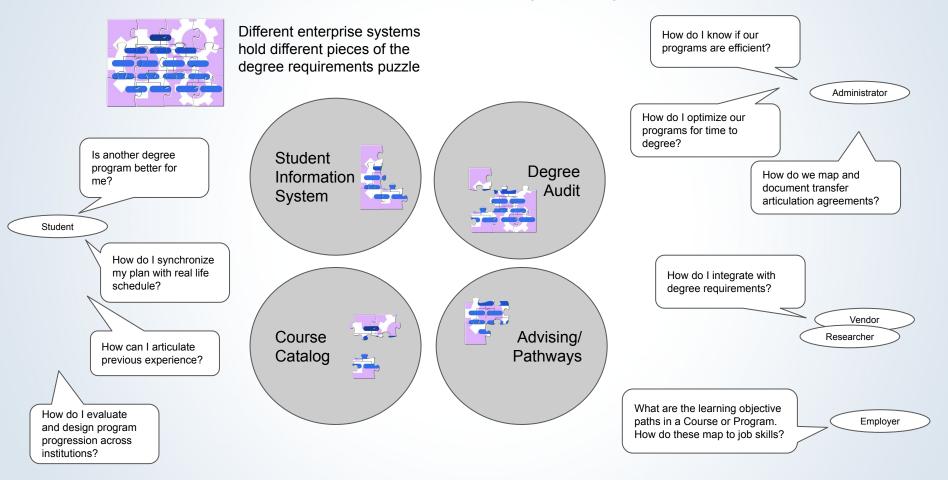


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DRAFT Comprehensive Program Requirement Management DRAFT

### The Problem - Lack of Comprehensive SOR For Degree Progress Rules

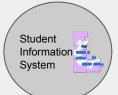


## Shortfalls of Legacy Systems



Degree Audit systems typically hold the most complete models for degree completion at institutions that use them. However, completion rules require coding via proprietary programming language by staff trained in the coding scheme, and the resulting data is not human readable. These systems are primarily designed to do one thing, run audit processes, with little support for advising, curricular planning or any other user facing applications. They provide no integration services for such allowing third party tools to access requirement rules. They do not incorporate contemporary "extra curricular" alternatives, such as external evidence of skills or proficiency from work, military or other experiences. They provide limited support for stacked programs/credentials. They do not allow organizations to capture transfer articulation decisions as actual alternative requirements

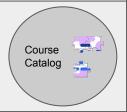
Most Student Information Systems (SIS) do not support management of degree requirements, or if they do it is a simplistic model that often requires a separate system to be in place for running degree audit. However, most SIS systems do capture course prerequisite and corequisite information, which is a key element of degree planning. As with Degree Audit systems, they provide little or no integration services for such data. They do not incorporate contemporary "extra curricular" alternatives, or capture transfer articulation decisions.

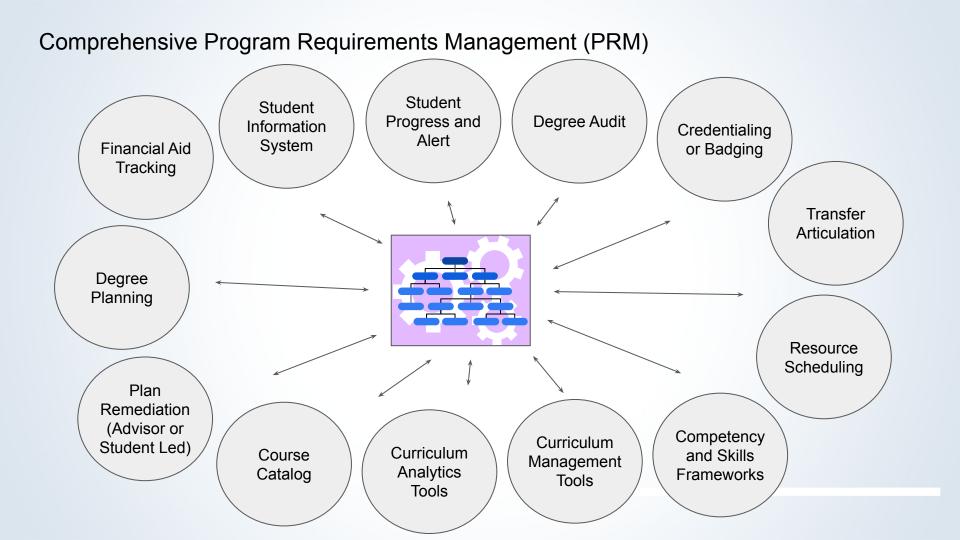




A recent trend in the advising and curricular planning domain has been to define curricular "pathways". We believe that, among other things, this trend is a direct result of the lack of comprehensive program requirement management. Pathways defined in such systems tend to be canonical, linear and relatively simplistic, and are insufficient to adequately cover the diverse number of "paths" that a real student can take towards degree completion based on actual requirement rules of an institution. Once a student is "off path" these solutions typically provide little help. To make matters worse, due to their simplicity, these solutions are not considered authoritative, and in the end a degree audit process must always eventually be invoked to confirm whether a student is really on track based on actual rules validation. These tools also lack the ability for students or advisors to explore cross-institutional pathways, or to advocate for transfer articulation.

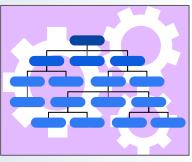
At most institutions the Course Catalog system, if available, is not considered a system of record for any curricular data. Il is viewed as simply a public-facing expression of the degree program and course offerings of the organization. They typically include textual representations of degree requirements, but these are seldom programmatically aligned with any system of record (due to lack of such systems or integration points described above) and are usually authored by hand. This often requires a parallel or shadow process within an institution leading to extra effort and synchronization issues with other related systems.





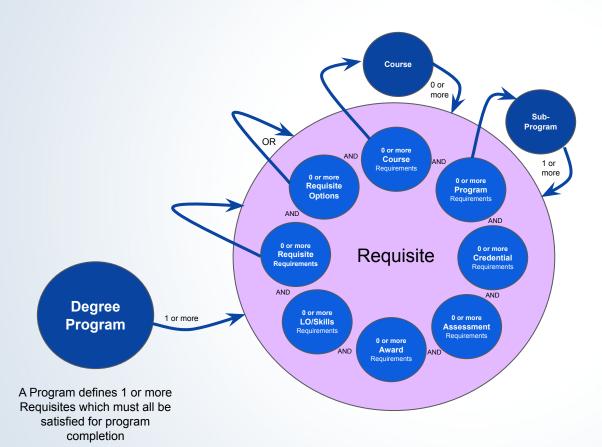
# Comprehensive PRM: Degree requirements rules that are programmatically accessible but also understandable by humans

#### Comprehensive PRM



- No-code, graphical authoring of requirements rules
- Define all traditional requirement components
  - Program requirements
  - Course requirements
  - Credit Hours
  - Minimum GPA, etc...
- Include stacked programs and credentials
- Include Assessment Requirements
  - No need to invent fake Courses to map to assessments
- Include Credential and Award Requirements
  - Define external Credentials, Awards and Badges as primary or alternative components of degree completion
- Include Learning Objectives and Skills Requirements
  - Define skills proficiency as primary or alternative components of a degree completion
  - Explore curricular offerings from the perspective of learning outcome pathways towards more efficient alignment
  - Simplify articulation of external experience and exceptions
- Document cross-institution transfer articulation decisions
- Expose requirements rules via comprehensive API endpoints
- Export requirements rules as code for legacy Degree Audit systems

## The Comprehensive Requisite Model



A Requisite can be thought of as a bundle of requirements that are to be evaluated as required rules, "AND" terms for a particular Requisite:

- Course Requirements
- Program Requirements
- Credential Requirements
- Assessment Requirements
- Learning Objective (Skill) Requirements
- Award Requirements
- Requisite Requirements

A Requisite may contain options, or alternative requisites. These options define "OR" terms for evaluation of alternative pathways.

A Requisite may also contain External Rules to capture requirements components not defined above. For example: "Students in the 2020 cohort have special GPA requirements for first year courses due to COVID considerations".

All these rules can be exposed to software developers through <u>CampusAPI</u> service protocols.