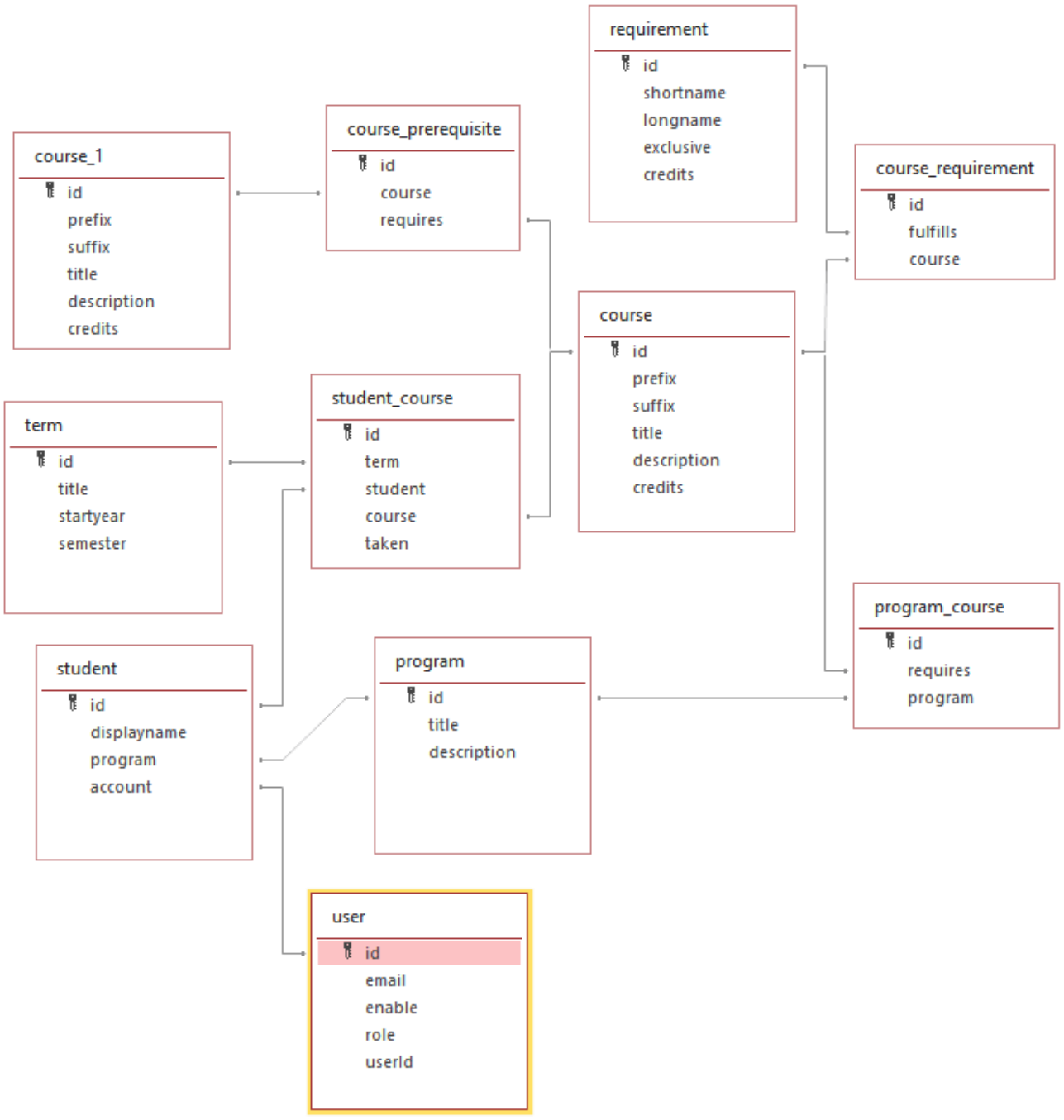
The following is version 2 of the schema proposal.



`user` — Stores a user. No additions made.

`program` — Stores an academic program.

- `title: short text` — The name of the program.
- `description: long text` — The description of the program.

`course` — Stores a course.

- `prefix: short text` — The letter code prefix (i.e., CS, MATH, BIO, …)
- `suffix: short text` — The course number, which may include "HON" or other suffixes.
- `title: short text` — The friendly name of the class.
- `description: long text` — The course description.
- `credits: integer` — The number of credit hours this course is worth.
    - `credits > 0`

`program_course` — Relates a program to the courses it requires.

- `program: foreign key [program]` — The program with a required course.
- `requires: foreign key [course]` — The course required by the program.

`term` — Stores a term.

- `title: short text` — The name of the term.
- `startyear: integer` — The starting year of the academic calendar. (e.g., 2022-2023 → 2022)
    - `startyear > 0`
- `semester: smallint` — An Enum representing the semester.
    - `{ 0: fall, 1: winter, 2: spring, 3: summer }`
    - `semester ≥ 0 and semester < 4`

`student` — Stores a student.

- `displayname: short text` — The preferred name of the student.
- `account: foreign key [user]` — **Optional.** The Advisor account of the student.
    - `allow null`
- `program: foreign key [program]` — The program this student is enrolled in.

`student_course` — Relates a student to what courses are on their advising report.

- `student: foreign key [student]` — The student with a planned or taken course.
- `course: foreign key [course]` — The course.
- `term: foreign key [term]` — What term this course is assigned to (for drag & drop).
- `taken: boolean` — Whether the course has been taken yet.

  If `true`, the course is marked as completed. If `false`, the course is NOT completed.

`requirement` — Stores a university requirement category.

- `shortname: short text` — The abbreviation of the category (e.g., SBSC, GLP, RES-A)
- `longname: long text` — The full name of the category (e.g., Arts and Humanities)
- `exclusive: boolean` — Makes this requirement exclusive when set to `true`. If a course has several exclusive requirements, it can only satisfy **one** of them.
  - Gen-ed categories with this exclusion property include ARHU and CISS. The non-exclusive categories are RES-A, RES-B, and GLP — several may be satisfied by the same course.
- `credits: integer` — How many credit hours of this category are needed to graduate.
  - `credits > 0`

`course_requirement` — Relates a course to the university requirement categories it satisfies.

- `course: foreign key [course]` — The course satisfying a university requirement
- `fulfills: foreign key [requirement]` — A university requirement this course satisfies.

`course_prerequisite` — Relates a course to its prerequisite(s).

- `course: foreign key [course]` — The course with a prerequisite.
- `requires: foreign key [course]` — The prerequisite required by the course.