

Entity	Primary Key (PK)	Other Attributes
Student	StudentNo	FirstName, LastName, DOB, JoinDate
Instructor (sub-type of Student)	StudentNo (FK + PK)	InstructorStartDate, InstructorStatus (<i>Compensated / Volunteer</i>)
Class	ClassID	Level (Beginner/Int/Adv...), DayOfWeek, StartTime, Location
ClassMeeting	MeetingID	ClassID (FK), MeetingDate
Attendance	<MeetingID, StudentNo> (PK, FKs)	—
TeachingAssignment	<MeetingID, StudentNo> (PK, FKs)	Role (<i>Head / Assistant</i>)
Rank	RankName	BeltColor
RankRequirement	RequirementID	RankName (FK), RequirementDescription
StudentRank	<StudentNo, RankName> (PK, FKs)	DateAwarded
Location	LocationID	Description/RoomNo

Participating entities	Relationship	Cardinality	Business-rule coverage
Student ↔ Instructor	<i>Is An</i>	1 : 0/1	Some students are instructors
Instructor — Class	<i>AssignedTo</i>	1 instructor per class; instructor 0-N classes	Rule 4
Class — ClassMeeting	<i>OccursAs</i>	1 class — N meetings	Rule 6
Student — ClassMeeting	<i>Attends</i>	M : N via Attendance	Rule 7
Instructor — ClassMeeting	<i>TeachesAt</i>	M : N via TeachingAssignment	Rule 8-9
Rank — RankRequirement	<i>HasRequirement</i>	1 : N	Rule 10
Student — Rank	<i>Earns</i>	M : N via StudentRank	Rule 11-12

Participation

- **ClassMeeting ↔ TeachingAssignment** — Meeting *must* have ≥1 instructor; an instructor may appear 0-many times.
- **Student ↔ Attendance** — Student may have 0 attendances; Meeting may have 0 students.
- **RankRequirement** — every non-white rank has ≥1 requirement
- **StudentRank** — each student has at least the white belt row dated JoinDate; every rank appears in at least one StudentRank row.