# Normalized Logical Schema

*Revised from the DASSL Logical Schema on GitHub*

*Items in grey assumed to be normalized*

**Student**(ID, FirstName\*, MiddleName, LastName\*, Email, Major, Year)

**Course**(Number, Title\*)

**Season**(Order, Name\*, Code\*)

**Term**(ID, Season, Year\*, StartDate\*, EndDate\*)

Season → Season.ID

**Instructor**(ID, FirstName\*, MiddleName, LastName\*, Department, Email)

**Section\_Instructor**(Instructor, Section)

Instructor → Instructor.ID

Section → Section.ID

**Attendance\_Record**(Date, Student, Section, Status)

Student → Student.ID

Section→ Section.ID

**Section**(ID, Term, SectionNumber, Course, CRN, Schedule, Location, StartDate, MidtermDate, EndDate, Instructor1\*, Instructor2, Instructor3)

Term → Term.ID

Course → Course.Number

**Enrollee**(Student, Section, DateEnrolled\*, MajorEnrolled, MidtermGradeWeightedAverage, MidtermGradeComputed, MidtermGradeAwarded, FinalGradeWeightedAverage, FinalGradeComputed, FinalGradeAwarded)

Section → Section.ID

Student → Student.ID

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**Section\_Grade\_Tier**(LetterGrade, Section, LowPercent\*, HighPercent\*)

LetterGrade → Grade.LetterGrade

Section → Section.ID

FDs:

LetterGrade, Section → LowPercent

LetterGrade, Section → HighPercent

In BCNF, since the grading system is dynamic, and it requires both LetterGrade and CRN to be together the key attribute.

**Grade**(LetterGrade, GPA\*)

FDs:

LetterGrade, → GPA

In BCNF, all FD’s are dependent only on the key attribute.

**AssessmentComponent**(ID, Section\*, Type\*, Weight\*, Description, PlannedNumberofItems)

Section → Section.ID

FDs:

ID → Section

ID → Type

ID → Weight

ID → Description

ID→ Planned Number of Assignments

In BCNF, all FDs are dependent on only the key attribute

**AssessmentItem**(AssessmentNumber, Component, BasePoints\*, ExtraCreditPoints, AssignedDate, DueDate, Curve)

Component → AssessmentComponent.ID

FDs:

AssessmentNumber, Component → BasePoints

Assessment Number, Component → ExtraCreditPoints

Assessment Number, Component → AssignedDate

Assessment Number, Component → DueDate

Assessment Number, Component → Curve

In BCNF, all FDs are dependent on only the key attributes

**Submission**(Student, Section, Component,­ SequenceInComponent, BasePointsEarned, ExtraCreditEarned, SubmissionDate, Penalty, InstructorNote)

Student → Enrollee.Student

Section → Enrollee.Section

Component → AssessmentItem.Component

SequenceInComponent → AssessmentItem.SequenceInComponent

FDs:

Student, Section, Component, SequenceInComponent → BasePointsEarned

Student, Section, Component, SequenceInComponent → ExtraCreditEarned

Student, Section, Component, SequenceInComponent → SubmissionDate

Student, Section, Component, SequenceInComponent → Penalty

Student, Section, Component, SequenceInComponent → InstructorNote

In BCNF, all FDs are dependent on only the key attribute