# Student - name: String - logString: String - studentID: StudentID

- grades: ArrayList<PassedCourseGrade>
- currentCourse: ArrayList<Course>
   advisor: Advisor
- schedule: Schedule
   transcript: Transcript

registrationOrder: int

- registrationController: RegistrationController
- + Student(name: String, registrationYear: int, registrationOrder: int, registrationController: RegistrationController)
- getPreviousCourses(): ArrayList<Course>
- + isPassed(course: Course): boolean
- + newCourses(courseSection: CourseSection): void
- + getGrade(course: Course): void
- + selectAndSendToAdvisor(): void

# WeeklySchedule

- stuSchedule: CourseSection[][]
- student: Student
- + WeeklySchedule(student: Student)
- + addToSchedule(courseSection: CourseSection): void
- + isCollision(courseSection: CourseSection): boolean

## StudentID

- student: Student
- department: String= "1501" {readOnly}
- + StudentID(year: int, rank: int)
- registrationYear(): String
- + getStudentID(): String
- + toString(): String

#### CourseSection

- course: Course
- full: boolean
- sectionHour: int
- students: ArrayList<Student>
- courseSchedule[][]: boolean
- quota: int
- numberOfQuotaFail: int
- numberOfPreregFail: int
- numberOfCollisionFail: int
- numberOfCreditFail: int
- failedQuota: String
- failedPrereq: String
- failedCollision: String
- failedCredit: String
- + CourseSection(course: Course)
- setCourseSchedule(): void
- + addStudent(student: Student): void
- + isFull(): boolean
- + setSectionHour(): void

#### PreviousCourseGrade

- decimalGrade: int
- course: Course
- + PassedCourseCode(course: Course, decimalGrade: int)
- + convertLetterGrade(): String

## Transcript

- student: Student
- + Transcript()
- + calculateCredits(): int
- + calculateGPA(): double

#### Advisor

- name: String
- + approveCourse(student: Student, courseSection: CourseSection): void

#### RegistrationController

- semester: String
- year: int
- courses: ArrayList<Course>
- courseSections: ArrayList<CourseSection>
- numberOfStudents: int
- numberOfAdvisors: int
- advisors: ArrayList<Advisor>
- students: ArrayList<Student>
- currentYear: int
- + RegistrationController()
- startRegistration(): void
- + getNamesList(): ArrayList<String>
- createAdvisors(): void
- createStudents(): void
- assignAdvisorsToStudents(): void
- addPreviousCourses(): void
- selectCourses(): void
- showOutput(): void
- showStatistics(): void
- + createNewCourseList(student: Student): ArrayList<CourseSection>
- findCourse(courseCode: String): Course

# Course

- courseCode: String
- courseName: String
- semester: String
- quota: int
- credits: int
- \_\_\_\_\_
- year: int
- sectionHours[2]: int
- requiredCredits: int
- prerequisite: Course
- passingCourseProb: double
- + Course(courseCode: String, courseName: String, semester String, quota: int, credits: int, theoric: int, lab: int, year: int, requiredCredits: int, preRequisite: Course, passingCourseProb: double)
- + setPrerequisite(prerequisite: Course): void
- + getSectionHours(): int
- + setSectionHours(theoric: int, lab: int): void