SEQUENCE DIAGRAMS

1. Sequence Diagram for Add Course

```
Student 
<table>
<thead>
<tr>
<th></th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>listAvailableCourses()</td>
</tr>
<tr>
<td></td>
<td>loop generateAvailableCourseList</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>addCourse()</td>
</tr>
<tr>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>
```

Course
2. Sequence Diagram for Drop Course

```
Student  Course
1 : dropCourse
    ↓
2 : incrementCapacity
    ^
```
3. Sequence Diagram for Get Approval
4. Sequence Diagram for Graduation Check
5. Sequence Diagram for Degree Program Management
**UML USE CASE SCENARIOS**

**Scenario 1: Add course**
1. List available courses
2. Select the course to be added
3. Check the capacity of the course
   3.1. If course capacity is available
      3.1.1. The course is added to the student’s course list
      3.1.2. The capacity of the course is decremented.
      3.1.3. Add course operation is successful
3.2. If course capacity is not available
   3.2.1. Reject the request
   3.2.2. Add course operation is failed

**Scenario 2: Drop Course**
1. List the taken courses
2. Select the course to be dropped
3. The course is dropped from the student’s course list
4. The capacity of the course is incremented
5. Drop course operation is successful

**Scenario 3: Get Approval**
1. Request helper student from the department
2. Department assigns the helper student
3. Helper student indicates agreement with the registered courses
4. Registered courses are sent to the advisor
5. Advisor inspects the taken courses and the transcript of the student
   5.1. Advisor requests the transcript of the student
   5.2. Advisor requests the courses taken by student
6. Advisor approves the registration of the student
**Scenario 4: Request graduation check**

1. Request graduation check from university

2. University compares student transcript with the related degree program.
   - 2.1. University requests student transcript
   - 2.2. If the transcript conforms to the program conditions, comparison is successful
   - 2.3. If there exists any unconformity, comparison is failed

3. University checks for course fee debts
   - 3.1. If there is no course fee debts, check returns successful
   - 3.2. If any debts exist, check returns failed

4. University checks for library debts
   - 4.1. If there is no library debts, check returns successful
   - 4.2. If any library debts exist, check returns failed

5. If all above tests are successful, graduation is approved.