

## 15 Functional Requirements

### 1. User Registration

- Users should be able to register for an account with their university email
- System should be able to verify the user's email to prevent unauthorized access

### 2. User Authentication

- Users should be able to login using their university email
- System should be able to protect user's privacy

### 3. Profile Management

- Users must be able to update their profile information (name, contact details, major)
- System should be able to maintain profile history

### 4. Course Search

- Users must be able to search courses by course code, course name, or department
- System must display information about each course, including course description and prerequisites

### 5. Course Recommendations

- The system should recommend courses based on user's academic history, major, and preferences
- Recommendations should take in account course availability and scheduling conflicts

### 6. Academic Planning

- Users should be able to create and modify semester-wise academic plans
- The system must check for prerequisite requirements when adding courses to the plan

### 7. Real-Time Prerequisite Checks

- The system should verify prerequisite requirements for selected courses
- Users must be notified of any missing prerequisites and provided alternative options

### 8. Degree Audit

- Users should be able to generate a degree audit report to track progress towards graduation
- The system must highlight completed requirements and identify outstanding coursework

### 9. Advising Appointment Scheduling

- Users should be able to schedule advising appointments with advisors through the system
- The system must display available appointments slots and send confirmation notifications to users

### 10. FAQ Handling

- The system should provide instant responses to frequently asked questions about university policies, procedures, and resources
- Users must be able to submit new questions

### 11. Notifications

- The system must send notifications to users for important events, such as registration deadlines, course add/drop dates, and advising appointments
- Users should be able to customize notification preferences

### 12. Integration with Student Portal

- The system should integrate with the university's student portal to fetch and update student records
- Users must be able to access their grades, class schedule, and financial aid information through the bot

#### 13. Accessibility

- The system must comply with accessibility standards to ensure usability for users with disabilities
- It should support screen readers and provide alternative text for images and text to speech options

#### 14. Data Security

- The system must encrypt sensitive user data, including passwords and personal information
- Access to user data should be restricted to authorized personnel only

#### 15. System Logs

- The system should maintain logs of user interactions, including login attempts, course searches, and academic plan modifications
- Logs must be securely stored and accessible for auditing purposes

### 3 Non-Functional Requirements

#### 1. Performance

- The system should be able to handle concurrent user sessions without significant performance degradation
- Response times for user interactions should be within acceptable limits, even during peak usage periods

#### 2. User Interface

- The system must have an intuitive and user-friendly interface, suitable for both desktop and mobile devices
- It should follow established design patterns and UI conventions to ensure ease of use

#### 3. Reliability

- The system must have a robust error-handling mechanism to handle unexpected errors gracefully
- It should be capable of recovering from failures and maintaining data integrity

- GUI (wire frame)

UVUAdvisorBot		
My Profile	Course Search	Logout
<div>Hi how can I help you?</div>		
<div>type here</div>		

- Classes

Student	Course	Major
<ul style="list-style-type: none"><li>- Past classes</li><li>- Major</li><li>- Academic Plan</li></ul>	<ul style="list-style-type: none"><li>- Course code</li><li>- Course Description</li><li>- Pre- requisites</li><li>- Post-requisites</li><li>- Major Requiremnts</li></ul>	<ul style="list-style-type: none"><li>-Major Name</li><li>-Required courses</li></ul>