GEMS Development Strategy

User/Ideation Team

- User ideas
- Brainstorm needs/ideas regarding business processes and new features
- Brainstorm if feature is appropriate for all departments (CS, ILS, INFO)
- If an idea for a feature is agreed upon, users will create a Jira ticket to describe new feature. The ticket will be given a status (under review) and will go to the technical team.
- Any changes to a requested feature after the initial request must go back to the technical team and be prioritized by the leadership team.
- Users will receive email notification of changes in ticket status and/or can log into Jira at any time to see status of all open tickets.
- Send to Technical Team

Technical Team

- Weekly triage meeting of tickets in the queue to determine Technical Profile:
  - Technical risk assessment
  - Determine work involved
  - Time investment
  - Determine test plan
  - Determine release timeline
  - Create wireframe
  - Where possible, consider features that can be easily customized by users
  - A Technical Profile of features is generated from the list above.
  - Monthly, a list of requests and associated Technical Profiles will be reviewed by the leadership team. JIRA list will be reviewed by the technical team to decide if any of the requests should be aggregated.
- Send to Leadership Team
- Team will be using AGILE methodology

Leadership team

- High level decision makers for GEMS program - determine strategic requirements and overall project direction
- Review feature requests with technical profiles and wireframes
- Agree to adopt requirement or request more information
- Determine priority
- If divergent requirement (details differ between depts.) discuss possibility of unified structure.
- If leadership team requests change in requirement, it must go back to technical team process. Similarly, any change made in the technical profile has to cycle through leadership team again.
- Leadership approval and sign-off. If a feature is requested that is urgent, and the technical team does not have enough time to test adequately, the Leadership team will sign-off and assume the risk.
- Release for Technical

Technical Team Development process

Ideate = Technical Profile generated = Leadership team approval = close process for technical development / no new requests taken.

Go to Development Phase I

<table>
<thead>
<tr>
<th>Technical ideation</th>
<th>Develop</th>
<th>Test this feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>technical details</td>
<td>write code</td>
<td>fix bugs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>refine code</td>
</tr>
</tbody>
</table>

Period ends = demo product to Ideation group = decide if refining is needed.
If no, go to Testing Phase.
If yes, start Development Phase II:

<table>
<thead>
<tr>
<th>Technical ideation</th>
<th>Develop</th>
<th>Test this feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>refine technical details</td>
<td>write code</td>
<td>fix bugs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>refine code</td>
</tr>
</tbody>
</table>

Period ends = demo product to Ideation group = decide if refining is needed.
If no, go to Testing Phase.
If yes, start Development Phase III:

<table>
<thead>
<tr>
<th>Technical ideation</th>
<th>Develop</th>
<th>Test this feature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Period ends = demo product to Ideation group = decide if refining is needed.
If no, go to Testing Phase.
If yes, start Development Phase III:
Testing Phase

- In the Development phases, the testing is done only on the feature being developed. This testing phase tests the new feature in relation to the whole project. ANY change to the feature MUST go through testing again.
- User testing - when we involve ideation team or field test / pilot group (students)
- Regression testing is where a program is set to test the system. (Investigating if we could purchase) We need a testing suite that continually runs tests.
- A test is done with EACH bug fix and feature implementation.

| User testing | Regression testing | Field tests/Pilot tests students, faculty admins |

Data Security Tests
Request partnership with security office

Stakeholder sign-off - Final approval for release

GEMS User Guide
GSO offices/user ideation team to write GEMS User Guide to document how GSO office use GEMS to manage workflow.