How the University of Mississippi Improved User Experience in SAP Portal Applications using Current Web Techniques

The University of Mississippi
Chris Reichley, Director of Application Development and Integration
Errol Sayre, Software Developer IV

HERUG 2016 Session U-2
polls.olemiss.edu/14

Take a brief survey for us.
Improving UX at UM

• Many disparate technologies
  • Tomcat JSP, Web Dynpro ABAP, LAMP, EPP, BSP
• Many disparate devices
  • Students, Faculty, Staff all use a variety of desktops, laptops, tablets, and phones
  • 19K students at Oxford campus
  • 4K faculty/staff
  • 33K WiFi devices; 27K are phones/tablets
UM Website Visitors

Desktop 70%

Mobile 26%

Tablet 4%
What is responsive design/UX

• Application that seamlessly scales/adapts to varying screen sizes
• Standard HTML+CSS techniques
  • CSS media queries
  • All client-side
Responsive page design

• Desktop first
  • “Graceful degradation”
  • Adapt to mobile sizes/factors
  • Hides/moves/removes functionality on mobile

• Mobile first
  • “Progressive enhancement”
  • Inherently mobile friendly
  • Either adds functionality on desktop or lives at Lowest Common Denominator

• Per-project but our default is “Desktop first”
API-first development

- Build and test API
- Follow-up with apps for various platforms (web, iOS, etc.)
- SAP Fiori method (Gateway service => UI)
- UM in-house method “BSP+JSON”
UM’s BSP+JSON method

• build controller to provide interface to an RFC, FM, etc.
  • Similar to Gateway, but provides support for multiple payloads
• build app as HTML+JavaScript to consume that output
  • Similar to UI5 but based on semantic HTML + standardized UM CSS
UM Common

- Centralized repository like gstatic.com
  - Shared cache-point for CSS, jQuery, HighCharts, DataTables, SweetAlert, etc.
- Style inventory
  - Helps developers make use of common motifs, elements
  - Upgrades standard, semantic HTML to UM look & feel
- UM Templater
  - Standard script included in all apps to bootstrap CSS etc.
  - Standardizes emergency notifications across entire UM site
  - Bridges the gap for old apps to new design
  - Adapts for in-portal (EP) or direct-access apps (e.g. BSP)
UM Templater Example

Admissions selections change (year, term, major, campus)

- in-portal, popped-out minimal, popped-out full theme
Request change of Campus, Major, or Term

Please Note: You may only update your application/admission to a future term that is within one year of your initial application. All others will need to reapply for admission.

Were you previously enrolled as a student at The University of Mississippi?  ○Yes  ○No

* First Name  * Last Name  Middle  Maiden Name
First Name  Last Name  M  Maiden Name

Student ID Number  Admission Application Number
00000000  000000000000

Local/Mobile Phone Number  Home Phone Number  * E-mail Address
(662) 555-5555  (662) 555-5555  webid@go.olemiss.edu

* Resident State
Resident State
Request change of Campus, Major, or Term

Please Note: You may only update your application/admission to a future term that is within one year of your initial application. All others will need to reapply for admission.

Were you previously enrolled as a student at The University of Mississippi?  ○ Yes  ○ No

* First Name  * Last Name  Middle  Maiden Name
First Name  Last Name  M  Maiden Name

Student ID Number  Admission Application Number
00000000  or  000000000000

Local/Mobile Phone Number  Home Phone Number  * E-mail Address
(662) 555-5555  (662) 555-5555  webid@go.olemiss.edu

* Resident State
Resident State

Do you wish to change your primary campus?  ○ Yes  ○ No

Please list all school(s) you have attended or are currently attending:

<table>
<thead>
<tr>
<th>School Name</th>
<th>Date(s) of Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Name</td>
<td>08/2012 - 05/2016</td>
</tr>
<tr>
<td>School Name</td>
<td>08/2012 - 05/2016</td>
</tr>
<tr>
<td>School Name</td>
<td></td>
</tr>
</tbody>
</table>
Request change of Campus, Major, or Term

Please Note: You may only update your application/admission to a future term that is within one year of your initial application. All others will need to reapply for admission.

Were you previously enrolled as a student at The University of Mississippi?  

- Yes  
- No

Student Information

- * First Name
- Last Name
- Middle
- Maiden Name

Student Identification

- Student ID Number
- Admission Application Number

Contact Information

- Local/Mobile Phone Number
- Home Phone Number
- * E-mail Address

Residency Information

- * Resident State

Do you wish to change your primary campus?  

- Yes  
- No

Please list all school(s) you have attended or are currently attending:

<table>
<thead>
<tr>
<th>School Name</th>
<th>Date(s) of Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Name</td>
<td>08/2012 - 05/2016</td>
</tr>
</tbody>
</table>
Request change of Campus, Major, or Term

Please Note: You may only update your application/admission to a future term that is within one year of your initial application. All others will need to reapply for admission.

Were you previously enrolled as a student at The University of Mississippi?
  Yes  No

* First Name
  First Name

* Last Name
  Last Name  Middle

Maiden Name
  Maiden Name

Student ID Number  Admission Application Number
  00000000  or  000000000000

Local/Mobile Phone Number  Home Phone Number
  (662) 555-5555  (662) 555-5555

E-mail Address
  webid@go.olemiss.edu

Resident State
  Resident State

Do you wish to change your primary campus?  Yes  No

Please list all school(s) you have attended or are currently attending:

School Name
  School Name

Date(s) of Attendance
  08/2012 - 05/2016
Example of Gateway JSON Ajax PHP app with HighCharts
Overall Attendance

The following graph represents the total number of bookings being monitored by the system. In addition to the line showing the number of bookings, other lines indicate the number of class bookings in which the student has zero absences, one or more, two or more, etc. Select a point on the line graph in order to see that day's details on the pie chart below.

Absences by Week

Selected Day

04/12/2016 Breakdown
Room Schedule

Use the following form to view a specific day's schedule.

04/13/2016  Go

Attendance Room Schedule

His 105 – Section 4
2:15pm
## Scanner Activity

Use the following form to filter results by a date and time range.

04/13/2016  12:00am  to  04/13/2016  11:59pm

Last updated: 4/13/2016 10:27:25 am

<table>
<thead>
<tr>
<th>Room Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson Room 11</td>
</tr>
<tr>
<td>Anderson Room 137</td>
</tr>
<tr>
<td>Anderson Room 21 (Auditorium)</td>
</tr>
<tr>
<td>Anderson Room 231</td>
</tr>
<tr>
<td>Barnard Observatory Room 105</td>
</tr>
<tr>
<td>Bishop Room 101</td>
</tr>
<tr>
<td>Bishop Room 102</td>
</tr>
<tr>
<td>Bishop Room 103</td>
</tr>
<tr>
<td>Bishop Room 104</td>
</tr>
<tr>
<td>Bishop Room 105</td>
</tr>
<tr>
<td>Bishop Room 106</td>
</tr>
<tr>
<td>Bishop Room 107</td>
</tr>
<tr>
<td>Bishop Room 108</td>
</tr>
<tr>
<td>Bishop Room 112</td>
</tr>
<tr>
<td>Bishop Room 209 (Auditorium)</td>
</tr>
<tr>
<td>Bishop Room 324</td>
</tr>
<tr>
<td>Bondurant Room 204C (Auditorium)</td>
</tr>
<tr>
<td>Brevard Room 134 (Auditorium)</td>
</tr>
<tr>
<td>Bryant Room 200</td>
</tr>
<tr>
<td>Bryant Room 209 (Auditorium)</td>
</tr>
<tr>
<td>Carrier Room 211</td>
</tr>
<tr>
<td>Carrier Room 220</td>
</tr>
<tr>
<td>Coulter Room 200</td>
</tr>
<tr>
<td>Coulter Room 204</td>
</tr>
<tr>
<td>Coulter Room 211</td>
</tr>
<tr>
<td>Coulter Room 211</td>
</tr>
<tr>
<td>Farley Room 202 (Auditorium)</td>
</tr>
<tr>
<td>Fed Ex Room 207 (Auditorium)</td>
</tr>
<tr>
<td>Ford Center Auditorium</td>
</tr>
</tbody>
</table>

**Bishop Room 103**
- Valid: 58
- Invalid: 0
- Not Found: 0
- Event Scan In: 0
- Event Scan Out: 0
- Processing: 0
- Total: 58

*Click on a bar to view the room’s schedule.*
Course Favorites and Bookings

Example of BSP+JSON Ajax Portal app with UMTemplater and HighCharts
BISC 102 (FALL SEMESTER)

- Students - the number of unique students who have added this course to their favorites.
- Favorites - the number of times the course has been added to students' favorites lists.
- Bookings - the number of actual bookings for the course.

Course Favorites and Bookings by Academic Year
Student Activity Report

Example of BSP+JSON Ajax Portal app with DataTables
Student Activity Report

Enter search criteria to generate a relevant Student Activity Report.

Year: 2015-2016

Term: Spring Semester

Add Year / Term

Year / Term(s) to Display: 2015-2016 Spring Semester

View Interactive Report

Limit Results to:
- Students with all bookings attendance verified
- Students with all bookings having a "No Show" status
- Students with at least one "No Show" or "Special Circumstance" and all data exists
- Students with missing data

Student: Optional Student

Note: Searching by a specific student will ignore "Limit Results to" options.

View Interactive Report

Download Detailed Report

Limit Results to:
- Bookings with missing data.
- Bookings having a "No Show" status
- Bookings having a "Present" status
- Bookings having a "Special Circumstances" status

Get Detailed Report
### Student Activity Report

**Update Search Options**

*Note: Scrolling may be required to view all displayed columns.*

**Show / hide columns**

**First**  **Year**  **Term**  **Program**  **Classification**  **School**

<table>
<thead>
<tr>
<th>Name</th>
<th>Year</th>
<th>Term</th>
<th>Program</th>
<th>Classification</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madeline</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Senior</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Kelsey</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.S. in Integrated Marketing Communication</td>
<td>Sophomore</td>
<td>MEEK SCHOOL OF JOURNALISM &amp; NEW MEDIA</td>
</tr>
<tr>
<td>Alexander</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Senior</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Bruce</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Unclassified</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Henry</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Senior</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Emily</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Senior</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Savannah</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Junior</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Harriet</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Unclassified</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Megan</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Senior</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Madison</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Junior</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Samuel</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>M.A. in Modern Languages</td>
<td>Graduate I</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Alicia</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in Art</td>
<td>Junior</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Enoch</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>Business Undeclared</td>
<td>Freshman</td>
<td>SCHOOL OF BUSINESS ADMINISTRATION</td>
</tr>
<tr>
<td>Taylor</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Unclassified</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Madison</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.S. in Integrated Marketing Communication</td>
<td>Junior</td>
<td>MEEK SCHOOL OF JOURNALISM &amp; NEW MEDIA</td>
</tr>
<tr>
<td>Caltan</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in Accountancy</td>
<td>Unclassified</td>
<td>PATTERSON SCHOOL OF ACCOUNTANCY</td>
</tr>
<tr>
<td>Peter</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>M.A. in Modern Languages</td>
<td>Graduate I</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>James</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Unclassified</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Elizabeth</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Senior</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Holly</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Unclassified</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
<tr>
<td>Zachary</td>
<td>2015-2016</td>
<td>Spring Semester</td>
<td>B.A. in International Studies</td>
<td>Senior</td>
<td>COLLEGE OF LIBERAL ARTS</td>
</tr>
</tbody>
</table>
# Savannah

**AV Status:** Mixture of special, no show, and verified; all data exists

## Spring Semester 2015-2016

<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Number</td>
<td>[Redacted]</td>
</tr>
<tr>
<td>Student Athlete</td>
<td>No</td>
</tr>
<tr>
<td>Classification</td>
<td>Junior</td>
</tr>
<tr>
<td>Campuses</td>
<td>Oxford</td>
</tr>
<tr>
<td>Program</td>
<td>B.A. in International Studies</td>
</tr>
<tr>
<td>School</td>
<td>College of Liberal Arts</td>
</tr>
<tr>
<td>Department</td>
<td>International Studies</td>
</tr>
<tr>
<td>Cell Phone</td>
<td>[Redacted]</td>
</tr>
<tr>
<td>Email</td>
<td>[Redacted]</td>
</tr>
<tr>
<td>External Email</td>
<td>[Redacted]</td>
</tr>
<tr>
<td>UMLogin</td>
<td>04/05/2016</td>
</tr>
<tr>
<td>MyOlemiss</td>
<td>04/07/2016</td>
</tr>
<tr>
<td>Course</td>
<td>US 111 Sec 1 Abroad</td>
</tr>
<tr>
<td>Hours</td>
<td>12.00000</td>
</tr>
<tr>
<td>Booked By</td>
<td>[Redacted]</td>
</tr>
<tr>
<td>Book Date</td>
<td>11/01/2015</td>
</tr>
<tr>
<td>Book Time</td>
<td>15:32:41</td>
</tr>
<tr>
<td>Campus</td>
<td>Oxford Campus</td>
</tr>
</tbody>
</table>
SAP Object Relationship Graph

BSP application reading HRP1001 with GraphViz JS
Objects and Relationships Graph

ST - Student

517 - Has Study
513 - Pursues

CS - Study

530 - Applies for

CG - Module Group

516 - Has Acad.Specialization

501 - Offers

O - Organizational unit
Example of PHP app integrated with SAP data via BSP+JSON and Gateway services
UM Catalog

• SAP data + LAMP display application
  • System integration using BSP+JSON and Gateway

• BSP+JSON
  • Provides better performance for data coming out of RFCs dealing with SAP SLCM Academic Structure
  • Single service with multiple payloads from RFC vs individual Gateway service for each table in the RFC

• URL as UI
  • Consider interface at the lowest level (the URL)
  • pretty URLs + multi-format responses
  • .html vs .json vs .md
Example of PHP app integrated with SAP data via BSP+JSON and Gateway services
status: "ok",
catalog: "2016-020",
timeLimit: "20160125-20160514",
timestamp: "20160413095053",
message: "",

rules: [
    {
        cgObjectId: "10154532",
        ruleModuleId: "10100132",
        requirementElement: "General Education",
        ruleText: "6 hrs social science (Liba)",
        unitsRequired: "6",
        units: "Credit Hours",
        description: "Successfully complete 6 semester hours in anthropology, economics, political science, psychology or sociology."
    },
    {
        cgObjectId: "10154532",
        ruleModuleId: "10100133",
        requirementElement: "General Education",
        ruleText: "3 hrs humanities (Liba)",
        unitsRequired: "3",
        units: "Credit Hours",
        description: "Successfully complete 3 hours in one of the following areas: African-American studies; classical civilization; environmental studies (Envs 101); gender studies (G St 201, 301, 333, 350); philosophy; religion; Southern studies (S St 101, 102). In addition, gender studies courses that are cross-listed with African American studies, classical civilization, English, modern languages, philosophy, or religion courses will satisfy this requirement."
    },
    {
        cgObjectId: "10154532",
        ruleModuleId: "10106862",
        requirementElement: "General Education",
        ruleText: "3 hrs humanities (Liba)",
        unitsRequired: "3",
        units: "Credit Hours",
        description: "Successfully complete 3 hours in one of the following areas: African-American studies; classical civilization; environmental studies (Envs 101); gender studies (G St 201, 301, 333, 350); philosophy; religion; Southern studies (S St 101, 102). In addition, gender studies courses that are cross-listed with African American studies, classical civilization, English, modern languages, philosophy, or religion courses will satisfy this requirement."
    }
]
B.A. in English

MINIMUM TOTAL CREDIT HOURS: 120

DESCRIPTION

Literature and literary studies are at the core of the humanities and at the center of debates concerning culture, politics, education, and language. The program of study in English not only enriches students' appreciation of literature and engages them in cultural debate but helps develop crucial skills in analytical thinking and clear, persuasive expression both in speech and in writing. An English degree is an ideal gateway for careers that emphasize communication and critical thinking including law, business, journalism, public service, and education.

GENERAL EDUCATION REQUIREMENTS

See the ‘General Education/Core Curriculum’ for the School of Liberal Arts.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 hrs social science</td>
<td>6</td>
<td>Successfully complete 6 semester hours in anthropology, economics, political science, psychology or sociology.</td>
</tr>
</tbody>
</table>
B.A. in English  
Minimum Total Credit Hours: 120

DESCRIPTION
Literature and literary studies are at the core of the humanities and at the center of debates concerning culture, politics, education, and language. The program of study in English not only enriches students' appreciation of literature and engages them in cultural debate but helps develop crucial skills in analytical thinking and clear, persuasive expression both in speech and in writing. An English degree is an ideal gateway for careers that emphasize communication and critical thinking including law, business, journalism, public service, and education.

GENERAL EDUCATION REQUIREMENTS
See the 'General Education/Core Curriculum' for the School of Liberal Arts.

<table>
<thead>
<tr>
<th>REQUIREMENT</th>
<th>HOURS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 hrs social science</td>
<td>6</td>
<td>Successfully complete 6 semester hours in anthropology, economics, political science, psychology or sociology.</td>
</tr>
<tr>
<td>3 hrs humanities</td>
<td>3</td>
<td>Successfully complete 3 hours in one of the following areas: African-American studies; classical civilization; environmental studies (Enva 101); gender studies (GS 201, 301, 333, 350); philosophy; religion; Southern studies (ST 101, 102). In addition, gender studies courses that are cross-listed with African American studies, classical civilization, English, modern languages, philosophy, or religion courses will satisfy this requirement.</td>
</tr>
<tr>
<td>6 hrs modern/ancient language 200+</td>
<td>6</td>
<td>Successfully complete at least 6 hours at the 200 level or above in one modern or ancient language.</td>
</tr>
<tr>
<td>3 hrs fine arts</td>
<td>3</td>
<td>Complete 3 hours in the area of fine or performing arts. Choose from art history, music, dance, and theatre arts. Studio and workshop courses cannot be used to satisfy this requirement. Acceptable freshman or sophomore-level courses are: AH 101, AH 102, AH 201, AH 202; Music 101, Music 102, Music 103, Music 104, Music 105, Dance 200, and Theatre 201.</td>
</tr>
<tr>
<td>3 hrs math 100+</td>
<td>3</td>
<td>Successfully complete 3 hours of Math at the 100 level or above except for Math 245 and Math 246.</td>
</tr>
<tr>
<td>6 hrs history</td>
<td>6</td>
<td>Complete 6 hours in History (HIS) course work with a passing grade.</td>
</tr>
<tr>
<td>6 hrs literature survey</td>
<td>6</td>
<td>Complete 6 hours of literature survey with a passing grade. Choose from the following courses: Engl 221, Engl 222, Engl 223, Engl 224, Engl 225, or Engl 226.</td>
</tr>
<tr>
<td>First Year Writing I</td>
<td>3</td>
<td>Complete Engl 101, Hon 101, Writ 100 or Writ 101 with a passing grade.</td>
</tr>
<tr>
<td>First Year Writing II</td>
<td>3</td>
<td>Complete one of the following courses with a passing grade: Engl 102, Lib 102, Writ 102 or Hon 102.</td>
</tr>
<tr>
<td>9-12 hrs science</td>
<td>9</td>
<td>Complete a full year of science course work in one subject area (6-8 hrs) and complete 3 credit hours in a subject outside of the science area.</td>
</tr>
</tbody>
</table>
COMPUTER & INFORMATION SCIENCE

DEGREES OFFERED

- B.A. in Computer Science
- B.S.C.S. in Computer Science
- M.S. in Engineering Science
  - Emphasis - Computer Science
- Ph.D. in Engineering Science
  - Emphasis - Computer Science

The policies and regulations contained in this online University of Mississippi Catalog are in effect for the current or selected semester. The catalog is not a contract, but rather a guide for the convenience of students. The University of Mississippi reserves the right to 1) change or withdraw courses; 2) change the fees, rules, and schedules for admission, registration, instruction, and graduation; and 3) change other regulations affecting the student body at any time. Implicit in each student's enrollment with the university is an agreement to comply with University rules and regulations, which the university may modify to exercise proper its
{  
  status: "OK",  
  messages: null,  
  body: {  
    target: {  
      id: 10000921,  
      name: "COMPUTER & INFORMATION SCIENCE",  
      shortText: "10/0110625A",  
      objectType: "department",  
      uriComponent: "computer-science",  
      parentId: 10000820,  
      descriptions: {},  
      flags: {  
        details: true  
      },  
      departments: [],  
      managers: [],  
      programs: [  
        {  
          id: 10155258,  
          name: "B.A. in Computer Science",  
          shortText: "BA Comp Sci",  
          objectType: "program",  
          uriComponent: "ba-comp-sci"  
        },  
        {  
          id: 10154108,  
          name: "B.S.C.S. in Computer Science",  
          shortText: "BS Comp Sci",  
          objectType: "program",  
          uriComponent: "bs-comp-sci"  
        },  
        {  
          id: 10221583,  
          name: "B.S.C.S. in Computer Science",  
          shortText: "BS Comp Sci",  
          objectType: "program",  
          uriComponent: "bs-comp-sci"  
        }  
      ]  
  }  
}
Contact

**Chris Reichley**  
Director ADI  
reichley@olemiss.edu  
chrisreichley  
chrisreichley

**Errol Sayre**  
Software Developer IV  
esayre@olemiss.edu  
ErrolSayre  
errolsayre