



SOUTH ORANGE COUNTY COMMUNITY COLLEGE DISTRICT
SADDLEBACK COLLEGE ♦ IRVINE VALLEY COLLEGE ♦ ATEP

Increase Student Success with a Transformed Class Schedule



COMMUNITY COLLEGE
LEAGUE OF CALIFORNIA

Robert Bramucci, Ph.D., Vice-Chancellor, Technology and Learning Services
Jim Gaston, Director, IT – Academic Systems

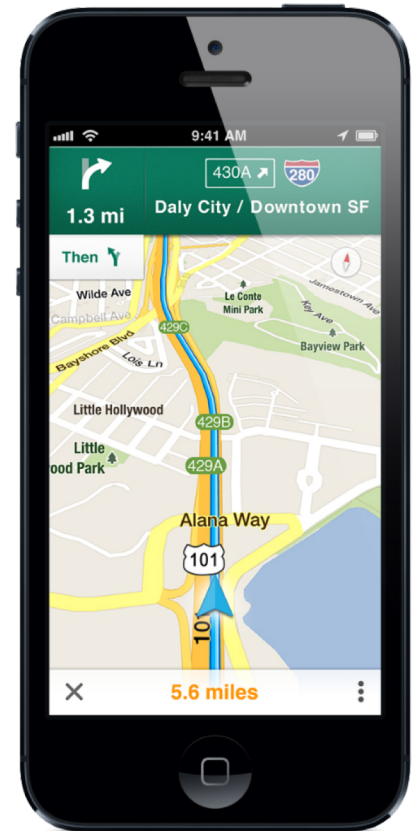
Agenda

- About Us
- Project Goals
- SmartSchedule Background
- Demonstration
- Next Steps – How You Can Get Involved

About Us

- About the SOCCCCD
 - Two-college district in southern California
 - Approximately 43,000 students/term (23,000 FTES)
- Two Colleges, Three Campuses
 - Saddleback College in Mission Viejo
 - Irvine Valley College in Irvine
 - Advanced Technology and Education Park (ATEP) in Tustin

SmartSchedule Goal



SmartSchedule Background

Class schedule was the first web application we built in 1995.
IDML program ran on a VAX and generated a set of HTML files each night.



[Home](#) | [Index](#) | [Prev](#) | [Next](#)



Irvine Valley College

DRAFTING

DR 100 FUNDAMENTALS OF MECHANICAL DRAFTING

Introduces the design process, the proper use of drafting instruments, lettering, geometric construction, multiview projection, pictorial drawings, ANSI and ISO dimensioning.
Course fee of \$12.00 payable at registration.

| Ticket | Weeks | From | To | Time | Days | Instructor | Location |
|--------|-------|-----------|-----------|---------------|------|----------------------------|----------|
| 60995A | 16.6 | 24-Aug-98 | 19-Dec-98 | 04:00PM-07:00 | M W | Collins, D | B 363 |

DR 101 MECHANICAL DRAFTING

Develops the basic skills required to produce industrial quality assembly and detail drawings. Includes basic design processes used for machine drawings, castings, cams, weldments, and power transmissions, with integrated problems and solutions.
Course fee of \$12.00 payable at registration.

| Ticket | Weeks | From | To | Time | Days | Instructor | Location |
|--------|-------|-----------|-----------|---------------|------|----------------------------|----------|
| 60995D | 16.6 | 24-Aug-98 | 19-Dec-98 | 04:00PM-07:00 | M W | Collins, D | B 363 |

DR 102 MECHANICAL DRAFTING AND DESIGN

Develops the basic skills needed for industrial-level mechanical drawing and conceptual design.
Course fee of \$12.00 payable at registration.

| Ticket | Weeks | From | To | Time | Days | Instructor | Location |
|--------|-------|-----------|-----------|------|------|----------------------------|----------|
| 90070 | 16.6 | 24-Aug-98 | 19-Dec-98 | TBA | TBA | Collins, D | TBA |

DR 150 INTRODUCTION TO COMPUTER-AIDED DRAFTING

An introductory computer-aided drafting (CAD) course for all applications. Students use the CAD system to create and analyze 2-D and pictorial drawings conforming to ANSI standards.
Course fee of \$12.00 payable at registration.

| Ticket | Weeks | From | To | Time | Days | Instructor | Location |
|--------|-------|-----------|-----------|---------------|------|----------------------------|----------|
| 61000A | 16.6 | 24-Aug-98 | 19-Dec-98 | 12:30PM-03:30 | T Th | Collins, D | B 363 |
| 61005 | 16.6 | 24-Aug-98 | 19-Dec-98 | 07:00PM-10:00 | M W | Collins, D | B 363 |

| |
|---|
| AUTO105 AUTOMOTIVE POWER TRAIN |
|---|

3 Units - 2 hours lecture 2 hours lab

Prerequisite: None

Limitation: None

Corequisite: None

Recommended Preparation: AUTO 100

Course Description: Operating principles and overhaul and repair procedures of automotive power trains including clutches, three- and four- speed synchromesh transmissions, overdrives, drive line, differentials, and rear axles. Demonstrated lectures and practical experience in the laboratory on power train components. Outside assignments are required. (R-E)

Other Information

- [Typical Assignments](#)
- [Topics Covered](#)
- [Learning Objectives](#)
- [Methods of Evaluation](#)

Upgraded to SmartSchedule in July 2002

[Home](#) | [Index](#) | [My Cart](#) | [Prev](#) | [Next](#)

History
Fall 2016

Class Search: [Advanced Search](#)

[Class Status](#) Last Updated at: 7/6/2016 2:30 PM

HIST 4 - WORLD HISTORY TO 1500

A survey of major themes and events in world history from the earliest civilizations to 1500. Emphasis will be placed on the rise of ancient Egypt, Greece, and Rome; the early Indian, Chinese, Latin American, and African empires, and European expansionism and global encounters.

Units: 3


| Ticket | Day | Time | Instructor | Location | Status | | | |
|---|------|-----------------|----------------|--------------------------|--------|----------------------------|-----------|-------------|
| The following classes meet from 8/22/2016 to 12/18/2016: | | | | | | | | |
| 20910 | M W | 9:30AM - 10:45 | M. ROMERO | LRC 104 | Open | Details... | book info | add to cart |
| This course uses AVID learning strategies. | | | | | | | | |
| 19010 | M W | 11:00AM - 12:15 | M. ROMERO | BGS 134 | Open | Details... | book info | add to cart |
| This course uses AVID learning strategies. | | | | | | | | |
| 19030 | M W | 3:30PM - 4:45 | M. ROMERO | BGS 134 | Open | Details... | book info | add to cart |
| This course uses AVID learning strategies. | | | | | | | | |
| 19005 | T Th | 8:00AM - 9:15 | C. GHANBARPOUR | BGS 134 | Open | Details... | book info | add to cart |
| The following classes meet from 9/12/2016 to 12/18/2016: | | | | | | | | |
| 19205 | TBA | | J. SEAMAN | INTERNET (Off Campus) | Open | Details... | book info | add to cart |
| Is an online class right for you? Please take this quiz: http://www.saddleback.edu/de/DEquiz.html . See class tips for online education at http://www.saddleback.edu/oe/online-class-tips , and course access instructions at http://www.saddleback.edu/de/student-technical-support/ . | | | | | | | | |
| The following classes meet from 8/22/2016 to 10/16/2016: | | | | | | | | |
| 19210 | TBA | | C. GHANBARPOUR | INTERNET (Off Campus) | Open | Details... | book info | add to cart |
| Is an online class right for you? Please take this quiz: http://www.saddleback.edu/de/DEquiz.html . See class tips for online education at http://www.saddleback.edu/oe/online-class-tips , and course access instructions at http://www.saddleback.edu/de/student-technical-support/ . | | | | | | | | |
| The following classes meet from 10/17/2016 to 12/11/2016: | | | | | | | | |
| 19215 | TBA | | C. GHANBARPOUR | INTERNET (Off Campus) | Open | Details... | book info | add to cart |
| Is an online class right for you? Please take this quiz: http://www.saddleback.edu/de/DEquiz.html . See class tips for online education at http://www.saddleback.edu/oe/online-class-tips , and course access instructions at http://www.saddleback.edu/de/student-technical-support/ . | | | | | | | | |
| 19220 | TBA | | J. SEAMAN | INTERNET (Off Campus) | Open | Details... | book info | add to cart |
| Is an online class right for you? Please take this quiz: http://www.saddleback.edu/de/DEquiz.html . See class tips for online education at http://www.saddleback.edu/oe/online-class-tips , and course access instructions at http://www.saddleback.edu/de/student-technical-support/ . | | | | | | | | |

HIST 5 - WORLD HISTORY SINCE 1500

Survey of major themes and events in world history from 1500 to the present

Units: 3

Shopping Cart added in Fall 2004





[Class Schedule](#) | [Important Dates](#) | [MySite](#)


Class Added



Fall 2016 Class Shopping Cart for Jim Gaston

Important: Placing a class in the shopping cart does **NOT** reserve you a seat in the class nor does it mean you are enrolled. These classes will remain in your cart until you delete them, or until you enroll in the class using MySite Registration.

help

| Ticket | Course | Day | Time | Instructor | Location | Units | Status | Open Seats | Details... | delete |
|--------------|--------|------|-----------------|------------|-------------------------|-------|--------|------------|----------------------------|---|
| New > 17380 | GEOG 1 | T Th | 11:00AM - 12:15 | C. BRENNER | BGS 327 | 3 | Open | 6 | Details... |  |
| 20910 | HIST 4 | M W | 9:30AM - 10:45 | M. ROMERO | LRC 104 | 3 | Open | 25 | Details... |  |
| Total Units: | | | | | | 6 | | | | |

 return to schedule

 pre-registration check

 go to MySite registration

[Class Status](#) Last Updated at: 7/6/2016 2:30 PM

Weekly Schedule

| Time | Mon | Tue | Wed | Thu | Fri |
|----------|--------|--------|--------|--------|-----|
| 7:00 AM | | | | | |
| 8:00 AM | | | | | |
| 9:00 AM | | | | | |
| 10:00 AM | HIST 4 | | HIST 4 | | |
| 11:00 AM | | GEOG 1 | | GEOG 1 | |
| 12:00 PM | | | | | |


Status Report - Email or RSS

Email: We can send you an email each day to report on the status of the classes in your cart. Fill out the fields below:

help

☒ Do Not Send ☐ Send me a daily email status report to:



Start Date: 

End Date: 

Email Format: 

☐ Send sample email now

RSS: We are testing a brand new service that will allow you to closely track the status of the classes in your cart. It uses a data format called RSS that provides you the ability to see a constantly updated list of your classes. To access your personalized RSS feed, just click on the link or RSS button below, then copy and paste the URL into a RSS compatible program.

[My Fall 2016 Class Cart Status](#)  

In Spring 2016 students created **30,791** shopping carts

Received the State Chancellor's Office Technology Focus Award in 2005



SOCCCD Student Success Systems



MAP



Sherpa



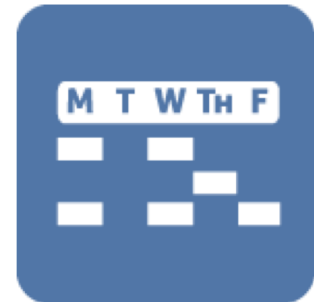
*Predictive
Analytics*



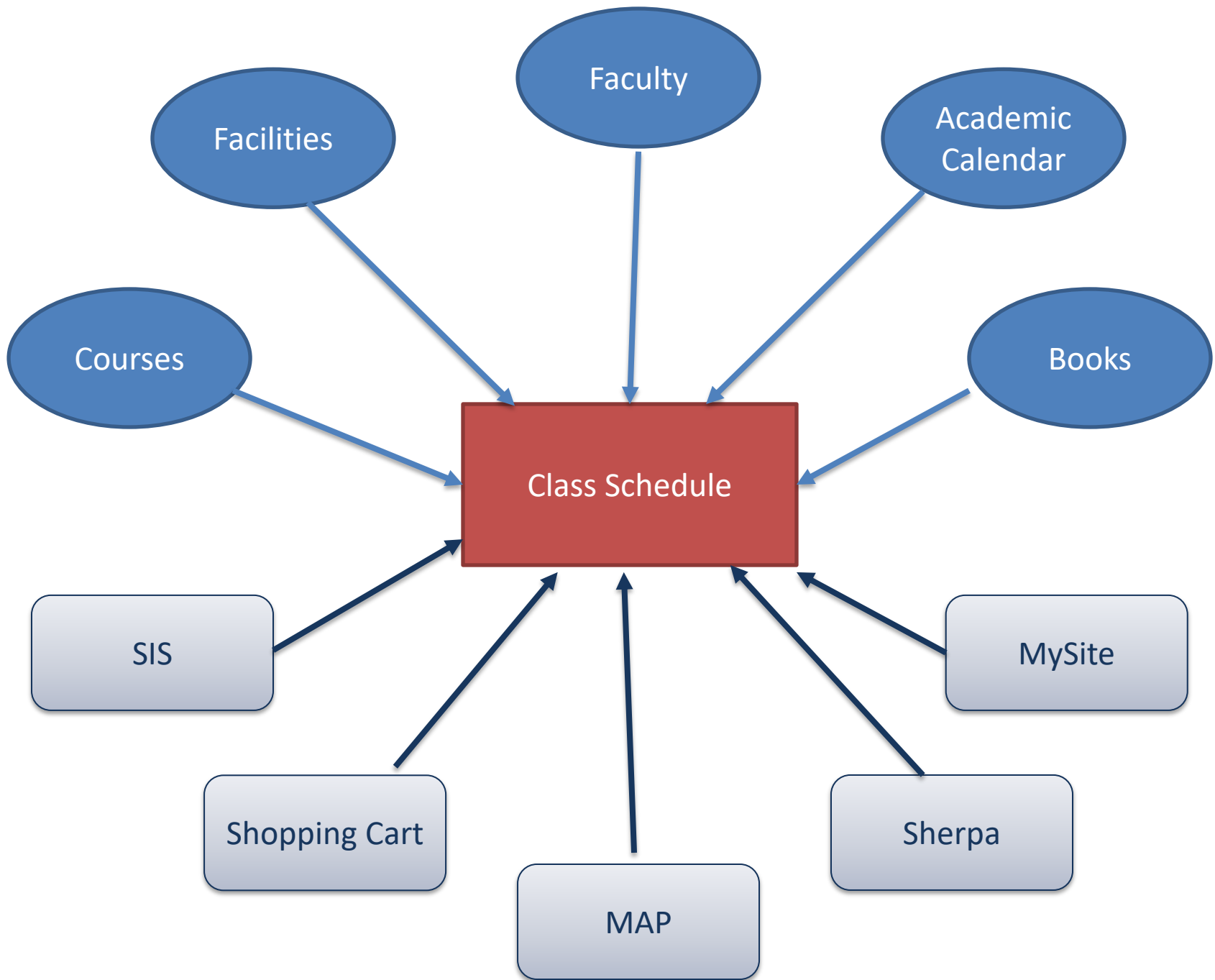
*Student Success
Dashboard*



*Progress Report
(Early Alert)*



SmartSchedule



Design Considerations

Traffic

Audience Overview

Jun 28, 2015 - Jun 28, 2016

Email Export Add to Dashboard Shortcut



All Users
100.00% Sessions



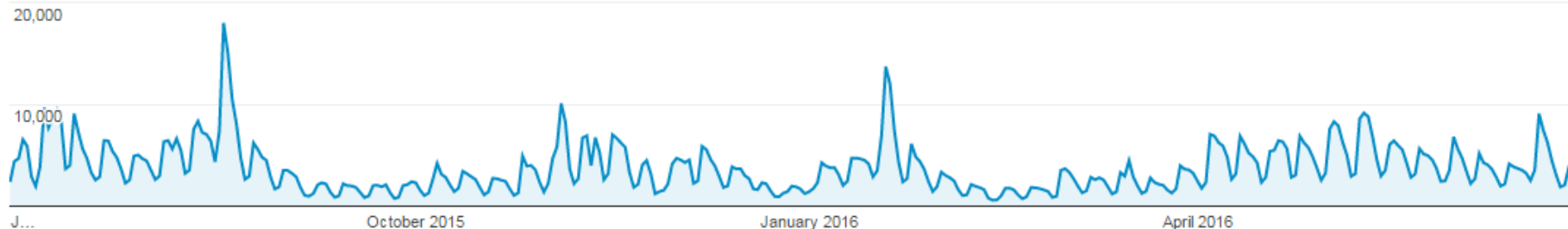
+ Add Segment

Overview

Sessions VS. Select a metric

Hourly Day Week Month

Sessions



Sessions

1,372,380

Users

480,429

Pageviews

9,366,857

Pages / Session

6.83

Avg. Session Duration

00:07:26

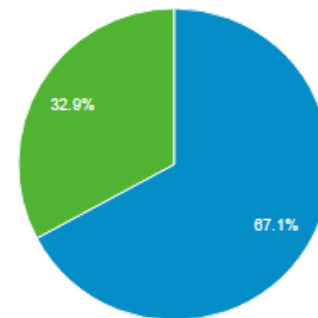
Bounce Rate

24.85%

% New Sessions

32.77%

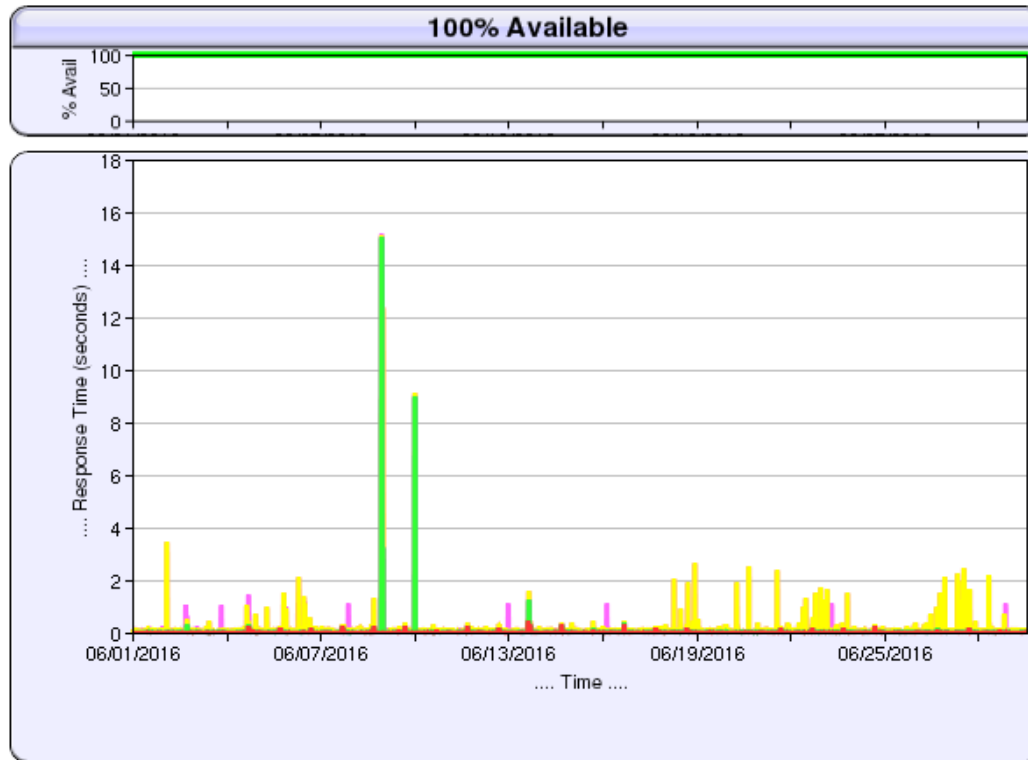
Returning Visitor New Visitor



Performance

Site Name: SmartSchedule Page
Customer: South Orange County CC District
Locations: Los Angeles

From: 2016-06-01 00:00
Thru: 2016-06-29 13:11



Legend:

[Show Bar Chart](#)

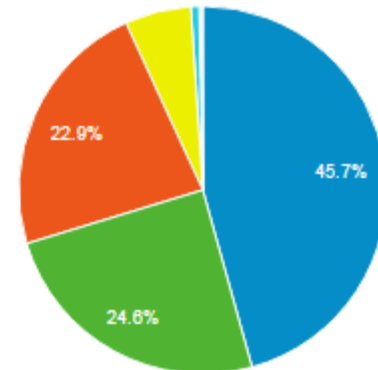
DNS Lookup Connect Redirect First Byte Content

Transaction Load Analysis

| | Response | DNS | Connect | Redirect | FirstByte | Content | DOM Load | Page Load |
|-----|----------|--------|---------|----------|-----------|---------|----------|-----------|
| Avg | 0.1379 | 0.0105 | 0.0175 | 0.0000 | 0.1060 | 0.0037 | 0.3414 | 0.3486 |
| Min | 0.0580 | 0.0000 | 0.0105 | 0.0000 | 0.0461 | 0.0000 | 0.1368 | 0.1408 |
| Max | 15.1763 | 0.4424 | 15.0423 | 0.0000 | 13.4641 | 1.0046 | 21.7174 | 21.7254 |
| STD | 0.3919 | 0.0220 | 0.2525 | 0.0000 | 0.2719 | 0.0422 | 0.6057 | 0.6062 |

Mobile

| | 1,372,380 % of Total: 100.00% (1,372,380) | 1,372,380 % of Total: 100.00% (1,372,380) |
|--|---|---|
| 1. ■ Windows | 626,934 | 45.68% |
| 2. ■ Macintosh | 337,715 | 24.61% |
| 3. ■ iOS | 313,624 | 22.85% |
| 4. ■ Android | 79,837 | 5.82% |
| 5. ■ Chrome OS | 9,894 | 0.72% |
| 6. ■ Linux | 2,896 | 0.21% |
| 7. ■ Windows Phone | 1,153 | 0.08% |
| 8. ■ BlackBerry | 221 | 0.02% |
| 9. ■ (not set) | 58 | 0.00% |
| 10. ■ Xbox | 23 | 0.00% |



Search

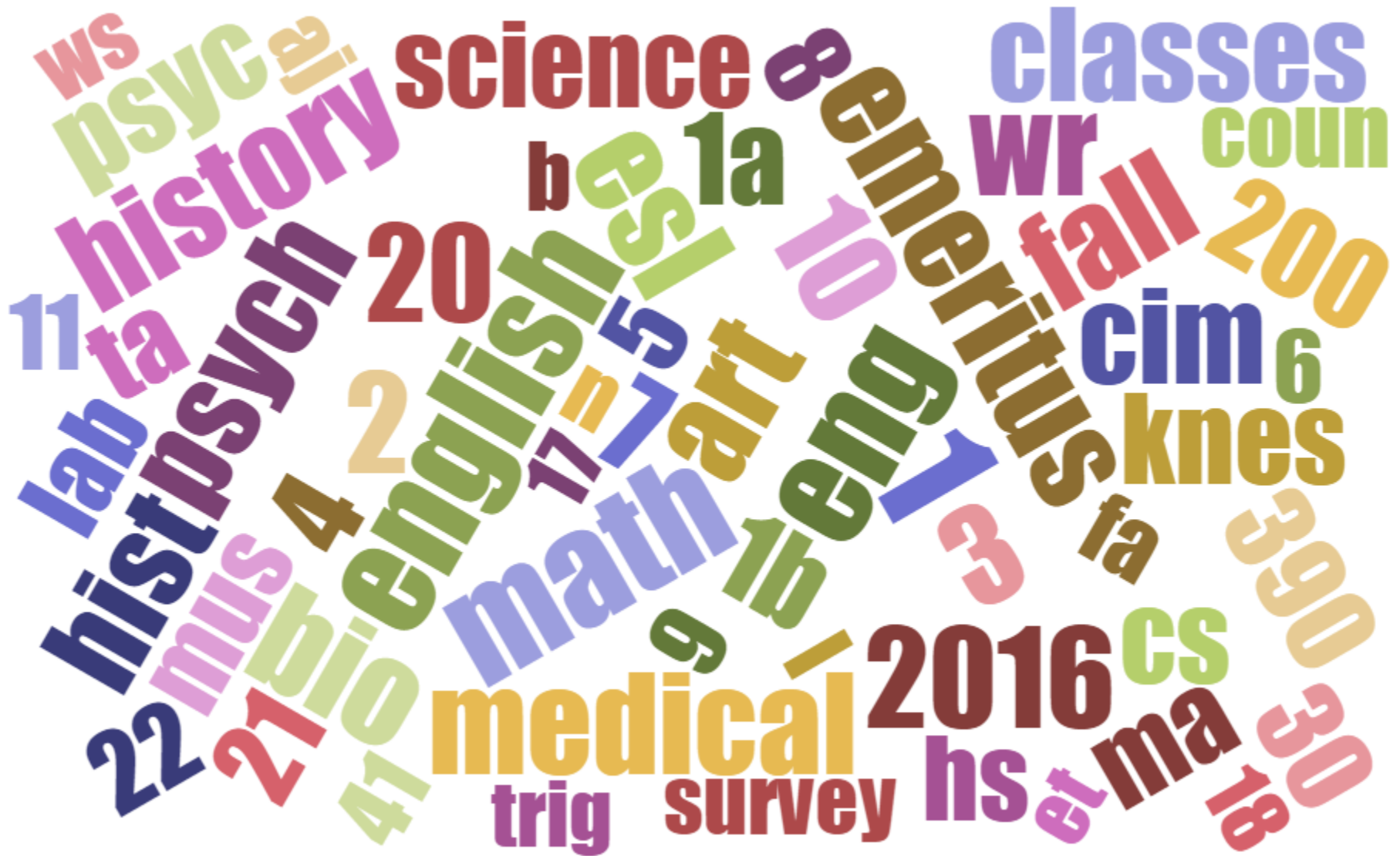
In the last year there were **271,610** searches in SmartSchedule, averaging **744/day**.

| Type | Success | Fail | Fail % |
|----------|---------|--------|--------|
| Simple | 58,884 | 24,195 | 29% |
| Advanced | 139,126 | 49,405 | 26% |
| Total | 198,010 | 73,600 | 27% |

Successful Searches



Unsuccessful Searches



Choice Architecture

- Index vs. Search
- Summary vs. Detail
- Generic vs. Customized
- Aggregation
- Terminology
- Sorting
- The Power of the Default



Why is this important?

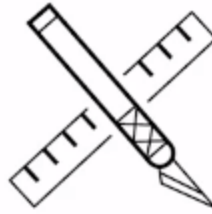


Design Process



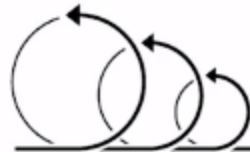
Ideate

1



Prototype

2



Iterate

3

The existing Open Schedule is just a digital artifact of the old paper catalog that is organized around the college-level departments. Smart Schedule 2.0 will be customized and geared more towards the individual student. Smart Schedule 2.0 will be delivered in 3 phases:

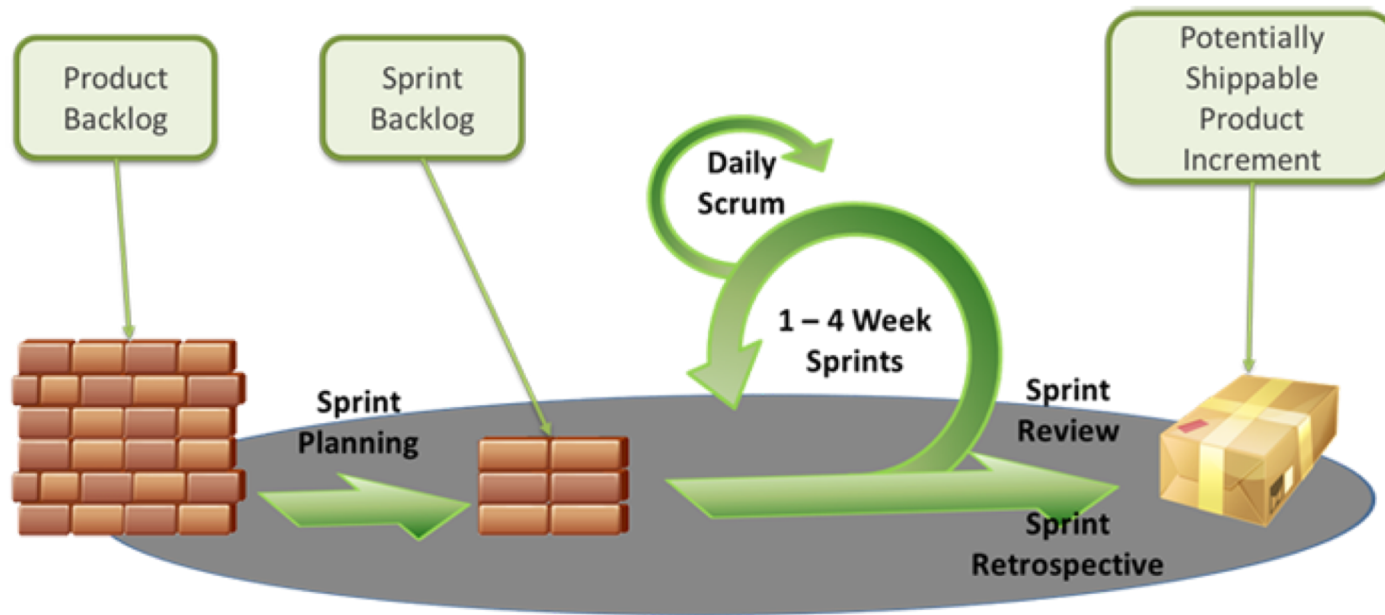
- Phase 1
 - Cosmetic – results to provide a smoother visual transition from the college site to the college-level department. Smart Schedule 2.0 will be customized and geared more towards the individual student.
- Phase 2
 - Customized view depending on student class schedule
 - Design for mobile first
 - Architectural groundwork (Integration w/BMAP, multi-tenant, featured items)
- Phase 3
 - Take into account Basic Skills level (math, reading, etc.)
 - Student goal – an Everett student taking tenure classes would have a different view than a student wanting to transfer to a UC
 - Pro-active – send notifications or nudges before registration, let student know what classes they need based on their goal-suggested schedule
 - Based on user preferences or habits e.g. if student always takes classes on Tuesdays, list Tuesday classes on top

Open Registration from Focus Groups

"Search for Open Classes" - need to make this more prominent as some users did not know it was there

- Make Search bar more prominent
- Instead of a whole search page, do something similar to Google bar
- Need both a search and a full index since there is a benefit to both ways
- Some might not know keywords is P.E.
- Full search with all search fields can be educational
- Add the Course ID to the class listing for ease of search (e.g. Eng 1A)
- Allow students to see class listing for semester instead of by year
- The college usually doesn't schedule that far in advance
- Would like for the design to be in a way that would bring back ability for semester browser through classes with some advertising as well
- Perhaps design in a magazine format with links
- Smart searching – know students clicks, behaviors, searches – including results.

Development Process



What do the students need?



Student Review of Class Schedules

| | A | B | C | D | E | F | G | H | I | J |
|---|--------------|--------------------|-------------------------------|---|-------------------|---|-----------|---|-------------|--------------------------|
| 1 | Date Started | Evaluator | College | Schedule | Functional Rating | Functionality Comments | UI Rating | UI comments | Total Score | Comments |
| 2 | 6/15/2015 | Sara J. Santamaría | Monterey Peninsula College | https://webreg.mpc.edu/SR_ScheduleOfClasses | 10 | It was very clear how to register for courses. Course information included transferability and recommended preparation. There is a book link beside each course. | 10 | I really enjoyed exploring the different methods for searching/viewing courses. My favorite was probably the Tree View. Students can select a term, then the first letter of the discipline, and then see courses listed under that discipline. | 20 | This one: surprise as in |
| 3 | 3/27/2015 | Melissa Boomer | City College of San Francisco | www.ccsf.edu | 10 | the class schedule was on the home page. once you clicked on that there were sub categories w/ evening, late, online, sat classes for each semester. It was easy to find an open class and understand. link to class schedule o home page. very easy to find. Once you click on class schedule, there is content page, you can click on which semester you are interested in as well as final exam dates/times and archived schedules. very functional and easy to use. | 10 | the class schedule is interactive with book info, and ada (american disabilities act) tells you that the class can access a wheelchair. I liked how the info is broken down in different colors as well. | 20 | |
| 4 | 3/27/2015 | Melissa Boomer | American River College | www.arc.losrios.edu | 9 | | 10 | easy to use, find classes and navigate. Included in description was a book link. Long class description with prereq. info. | 19 | |
| 5 | 6/4/2015 | Ryan Mathis | Antelope Valley College | http://www.avc.edu/information/schedule/ | 9 | The class schedule system ran smoothly and there were no problems finding classes. | 10 | AVC has a great class schedule system that is straight forward and easy to use. | 19 | I would look |
| 6 | 6/8/2015 | Ryan Mathis | Berkley City College | https://passport2.peralta.edu/psp/EPAPROD/EM | 9 | This is the most fluid system I have seen yet. It operates smoothly, was easy to find, and provides me with classes every time I search. | 10 | Incredibly easy to understand, awesome icon legend system: indicates waitlist/closed/open status of classes. I didn't even need to choose a class for a sustainable search, just the semester selected returned every class for that semester. | 19 | What |
| 7 | 6/11/2015 | Ryan Mathis | Cañada College | https://webschedule.smccd.edu/default.php | 10 | I had zero problems with the functionality. I think it is the best class schedule search system I have seen so far. The search engine was really fast. An 'expand class listing length' button was also helpful. Also an advanced search tab has been implemented for more narrow searching. | 9 | Extremely easy to use. Very helpful legend that a untrained person can easily understand. If I just wanted to see all the classes for the fall, that was possible by filling out only one field. Two different search buttons: one for 'all' classes' and the other for 'open' classes, allowing for a quick and informative way to view classes. Very intuitive. The only reason I gave it a 9 was because the URL given above was semi-difficult to find. | 19 | From is or cata Cañ |

Student Design Team Retreat



Breakout Sessions



Rough Sketches

smart Schedule

Log in
or
Register

?

Suggest
classes
for me!
tell us about
what are you
looking for?

LIST
OF
CLASSES

LIST
BY
SUBJECT

Students
Like
me

Smart Schedule



Arts & Humanities Results

FILTERS:

COLLEGE:

SC

IVC

PATHWAY

TRANSFER

-UC

-CSU

-BOTH

Hum 1

MUS 20

MUS 20 H

My Class Wishlists

Gerlie Jeltima
Plan 1 Status: [Active]

+ Constraints

+ Classes

+ Notes

Use this plan if I fail all
my classes Spring 2016

created 01/01/2016

Gerlie Jeltima
Plan 3 Status: [Active]

+ Constraints

+ Classes

Math 2A Pre-Algebra, SB
M, W, F 8-11 am, Dr. Scott

Relevant Links

Art 100 Illustration, OCE
T, Th 8-10 am, Lisa Smith

+ Notes

Gerlie Jeltima
Plan 2 Status: [Active]

+ Constraints

+ Classes

+ Notes

Max Units = 12
Class Hours = 24/week
Cost = \$2400/term

+ Classes

+ Notes

created 01/05/2016

Gerlie Jeltima
Plan 4 Status: [Inactive]

+ Constraints

+ Classes

M F W Th F Week
Math 1A Art 102 Math 1A Art 102 Math 1A

+ Notes

*Plans may integrate
with an Academic Planning tool

*

usually indicate course
has been completed (w/grade?)

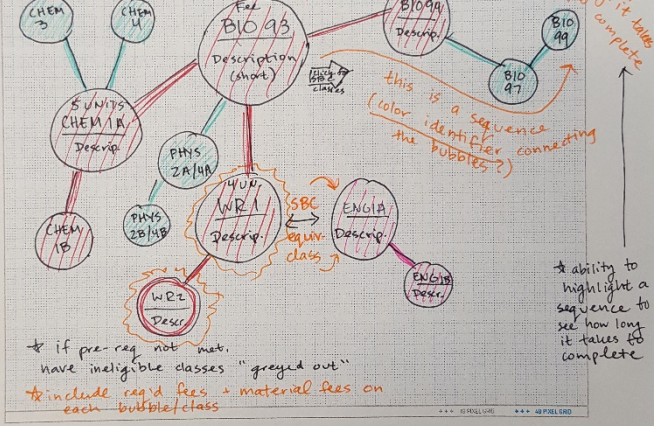
MAP: UCI BIO

Req'd classes:

BIO 93, BIO 94, BIO 97, BIO 99
CHEM 1A, CHEM 1B, CHEM 12A, CHEM 12B
MATH 3A, MATH 3B

Rec'd classes:

MATH 4A, MATH 24, MATH 26
CHEM 3/4



- 1) Select the Plan/MAP you want to follow
- 2) Select a req'd class to take → BUBBLES POP UP
- 3) Click again on selected central bubble to get class listings / more info / professors / times / days

Persona Based Design

- Olivia the Overachiever
- Uri the Undecided
- Abby the Adult Learner
- Ed the Emeritus Student
- Ivan the International Student
- Harry the High School Student

SmartSchedule Phases

- Phase 1 **Complete**
 - UX upgrade
 - College branding
 - Mobile responsive
 - Architectural Foundation for Phase 2
- Phase 2 **Complete**
 - Entirely new infrastructure
 - User Interface Enhancements
 - Allow colleges to easily change aggregation using index groups
 - Improved shopping cart
 - Global search with auto-suggest
 - Faceted search results with immediate refresh
- Phase 3 **Going Live February 2019**
 - New Landing Page
 - Schedule Builder with proactive recommendations from MAP

Phases 1 and 2 Demo

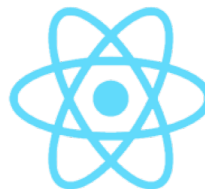
[illegible]

Infrastructure



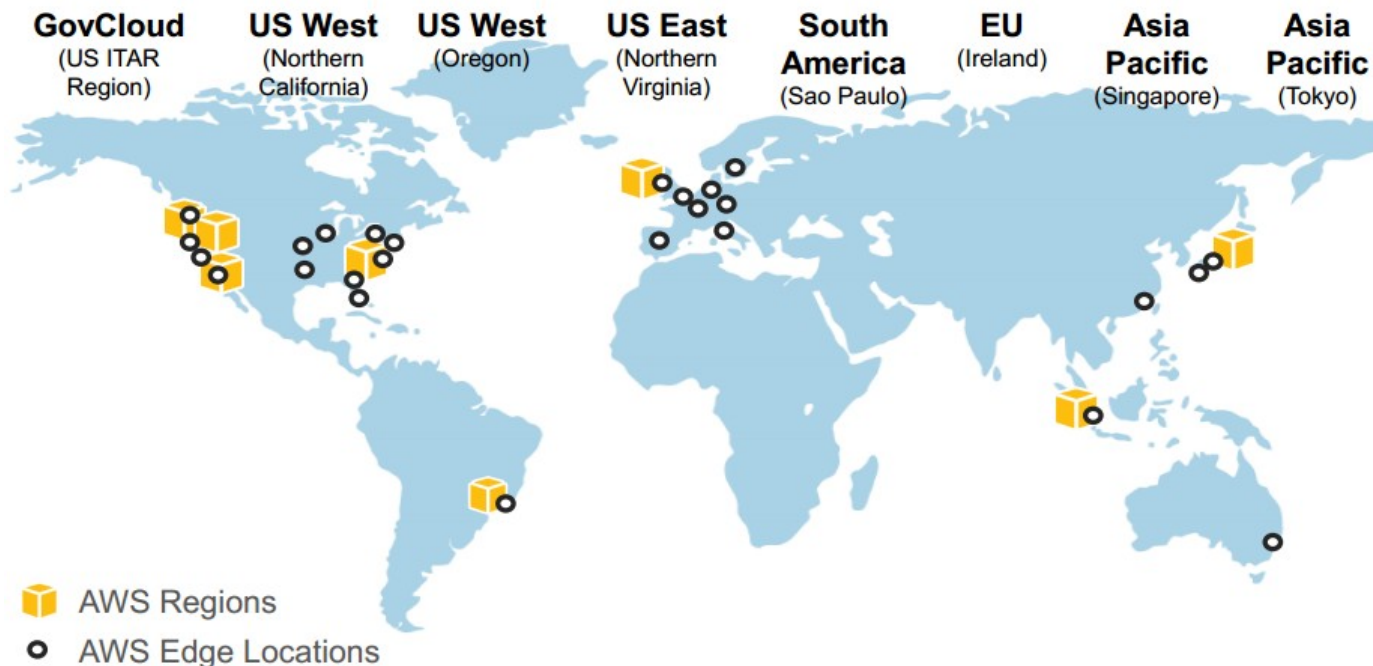
elasticsearch

©elastic.co




React

AWS Global Infrastructure



Phase 3 Demo



SWITCH COLLEGE

All ▾ Search 🔍

SCHEDULE BUILDERIMPORTANT DATESMY CART | ⌵

CLASS SCHEDULEMYSITE

Schedule Builder

Spring 2019Fall 2018More ▾

MAP PLANNED - SPRING 2019

SHOW LESSGO TO MAP📍HELP⬆

My PlanCopy of Business Admi ▾+ SELECT ALL

AJ 2

4 total sections4 open sections150 open seats

Select

COMM 1 **SELECTED**

1 total sections1 open sections30 open seats

MATH 3B

11 total sections11 open sections470 open seats

Select

TIME PREFERENCES

HELP⬆

Times+ ADD TIME PREFERENCE

Job **BLOCKED**

MWTh - 01:00 PM to 05:00 PM

Job **BLOCKED**

TTh - 09:00 AM to 10:00 AM

Ideal **PREFERRED**

MTWTh - 08:00 AM to 10:00 AM

My Weekly Schedule

☒ IN CART☒ ENROLLED☒ WAITLIST☒ BLOCKED

☐ LIST VIEW☒ CALENDAR VIEW

| | MON | TUE | WED | THU | FRI |
|-------|-------------------------|---|-------------------------|---|-----------------------|
| 8 AM | | | | | |
| 9 AM | | <div>AJ 2<div>Status: Open</div></div> | | <div>AJ 2<div>Status: Open</div></div> | |
| 10 AM | | <div>Job</div> | | <div>Job</div> | |
| 11 AM | | | | | |
| 12 PM | | | | | |
| 1 PM | <div>ANT 1</div> | <div>Job</div> | <div>ANT 1</div> | <div>Job</div> | <div>Job</div> |
| 2 PM | | | | | |
| 3 PM | | | | | |
| 4 PM | | | | | |

SELECT MORE COURSESHELP⌵

Guided Pathways

CLASS SCHEDULE

GUIDED PATHWAYS

MYSITE

▼ Fall 2018 Class Schedule

Fall 2018

Summer 2018

More ▼

Guided Pathways ☒ Index View

The Arts

Business Sciences

Guidance & Counseling

Humanities

Integrated Design, Engineering & Automation

Kinesiology, Health & Athletics

Language & Learning Resources

Life Sciences & Technologies

Mathematics, Computer Science & Engineering


Physical Sciences & Technologies

Social & Behavioral Sciences

▼ Schedule Builder

An easy and customized way to build your schedule!

Class Schedule Tutori...



BUILD YOURS NOW

Guided Pathways - The Arts

Degrees and Certificates

ASSOCIATE DEGREES

Art

CERTIFICATES

Assistant Stage Manager



What's Next?

- Complete Phase 3 (February 2019)
- Scale Up for Other Colleges

Questions?



Robert Bramucci: rbramucci@socccd.edu

Jim Gaston: jgaston@socccd.edu