



## **ACAD 475 The Garage Experience**

**Units: 8**

**Fall 2017—MW—10:30-1:50**

**Location: SKS404**

Garage Hours: (8.21-9.4) M-F 8am-6pm. Sat-Sun closed. (>9.4) M-F 8am – Midnight, Sat-Sun 9am-5pm

**Instructor: Dan Ryan, Steve Barth**

**Office: STO 330**

**Office Hours: By appointment**

**Contact Info:** Slack. [ryandj@usc.edu](mailto:ryandj@usc.edu), [sbarth@usc.edu](mailto:sbarth@usc.edu)

**Teaching Assistant: None**

**IT Help: Academy IT**

**Hours of Service: M-F, 8:30am-5:30pm**

**Contact Info: [iyhelp@usc.edu](mailto:iyhelp@usc.edu), 213.821.6140**

### **Course Description**

Academy capstone experience, innovative projects leading to operational prototypes and viable enterprises, mentored by faculty and industry experts.

This capstone course is comprised exploration, experimentation, and self-directed work on projects assigned in Academy courses. The course also includes labs, workshops, demos, and formative and summative critiques that students will propose and help structure. The Garage is a unique state-of-the-art facility with cutting-edge technology and mentored support. Students will build skills to develop innovative project proposals and produce operational prototypes. They have access to cutting edge hardware, software and mechanical tools for the production of prototypes, promotional materials and the development of professional presentations. Faculty from a variety of disciplines, industry experts and visionaries, and peer mentors will work with students to help them conceptualize their ideas and test their work with authentic audiences and consumers. Students will have an opportunity to “pitch” their ideas to potential employers, patrons, sponsors, and/or funding entities.

In Garage Experience I, taught in the fall semester, students will focus on in depth development of multidisciplinary, team-based projects, culminating in a working prototype or finished product, service, or process. In Garage Experience II, taught in the spring semester, students will finalize their projects and will “pitch” their idea to potential employers, patrons, sponsors or funding entities.

## Learning Objectives

By the completion of this course, students will be able to

1. Understand the concepts behind supply chain theory an application
2. Communicate ideas using multiple modalities including time-based and static images and graphical representations
3. Fabricate products and plan and launch services, and articulate processes
4. Create operational 3D prototypes
5. Facilitate and glean data from focus groups
6. Develop market vetted promotional and educational materials
7. Prepare a financial pro forma to inform business decisions

**Prerequisite(s):** ACAD 377a, 377b **Co-Requisite(s):** none **Concurrent Enrollment:** none

**Recommended Preparation:** Other Academy coursework.

## Course Notes

Students will work, solo or in teams, with faculty project advisors, course instructors, and other expert consultants, as appropriate. Class meets twice weekly in the Garage, but some teams may convene off-site or in other workspaces some of the time.

**Technological Proficiency and Hardware/Software Required** Varies by project.

**Required Readings and Supplementary Materials** Varies by project.

## Description and Assessment of Assignments

Primary work for the course is the conceptualization, planning, and execution of an innovation project approved in advance by Academy faculty.

## Grading Breakdown

### Deliverables/Artifacts/Outputs (60%)

Assignment	% of Course Grade	Graded by
End of semester product	20%	Faculty
End of semester Critique	20%	Faculty
"Deliverable 0" Critique	10%	Faculty
Problem 0.2 Critique	10%	Faculty

### Performance/Activity (20%)

Objectives meeting or exceeding expectations	5%	Advisor
Average weekly booked hours	5%	Instructors
Collegial contributions	10%	Instructors

### Process (20%)

#WhereDidTheTimeGo Memos	4%	Instructors
Research Plan and Memo	4%	Advisor/Instructors
Advisor Checkins/Milestone Meetings	4%	Advisors
Journey Blog Posts	4%	Advisors
Class Attendance	4%	Instructors

## Assignment Submission Policy

Weekly checkins with faculty project advisor (including hours report) to be completed by 5pm Friday of each week) submitted via mechanism agreed to with project advisor and instructor. Journey blog update due Saturday 11:59 p.m. submitted via Slack. Prototypes, presentations and critiques per syllabus schedule.

## Grading Timeline

This course features continuous feedback from instructors, project advisors, mentors, and peers. Feedback on written work and ongoing work performance from instructors and project advisors. Feedback and grading of presentations by panel of faculty and/or outside experts.

## Grading Scales and Assignment Rubrics

Deliverables/Artifacts/Outputs (60%)

What	% of Course Grade	Graded by	Level of Achievement	Grade
End of semester product	20%	Faculty	Excellent	A
			Good	B
			Satisfactory	C
			Unsatisfactory	F
End of semester Critique	20%	Faculty	Excellent	A
			Good	B
			Satisfactory	C
			Unsatisfactory	F
Deliverable 0 Critique	10%	Faculty	Excellent	A
			Good	B
			Satisfactory	C
			Unsatisfactory	F
Problem 0.2 Critique	10%	Faculty	Excellent	A
			Good	B
			Satisfactory	C
			Unsatisfactory	F

Performance/Activity (20%)

Objectives meeting or exceeding expectations	5%	Advisor	80%+	A
			71-80%	B
			51-70%	C
			under 50%	F
Average weekly booked hours	5%	Instructors	22+	A
			20-21.9	B
			16-19.9	C
			under 16	F
Collegial contributions	10%	Instructors	Top %ile hours donated, top %ile peer eval, top % public good blog posts, top %ile instructor observation	A
			Noticeable and remarked upon	B
			Satisfactory but unremarkable	C
			Not a part of your GX	F

Process (20%)

#WhereDidTheTimeGo Memos	5%	Instructors	All (15/15)	A
			13-14	B
			12 or fewer	F
Research Plan and Memo	4%	Advisor/Instructors	Excellent	A
			Good	B
			Satisfactory	C
			Unsatisfactory	F
Advisor Checkins and Milestone Meetings	4%	Advisors	All, professionally handled, etc.	A
			Most, professionally handled, etc.	B
			Many not	D
			Unsatisfactory	F
Journey Blog Posts	4%	Instructors	14+	A
			10-13	B
			<10	F
Class Attendance	4%	Instructors	100%	A
			90-99%	B
			<90%	F

## Additional Policies

Course schedule indicates sessions and events for which attendance is mandatory. Students are expected to be punctual to all sessions and events.

## Course Schedule: A Weekly Breakdown

PLEASE NOTE: Faculty project advisor check ins and Milestone meetings are scheduled, by default, on Wednesdays but each team/advisor will arrange these by mutual convenience. Attendance at all these meetings is mandatory so please schedule wisely. Course instructors will look for updates weekly so meetings should happen before Friday 5 p.m.

### Phase I Starting Up

1

Monday 8/21

Milestones, Meetings, Mentors.

Students 10:30-1:50  
Faculty: SB DR 10:30-1:50

Wednesday 8/23

Garage Project Overview for Peers

Students 10:30-12:30  
Faculty: DR SB

Launch Meeting

Students 12:45-1:50  
Faculty: SB DR DT AS SC EM BS PD

What's Due

1. #Wheredidthetimego? Report
2. Design Journey Blog

2

Monday 8/28

Project Work & Individual Instruction

Students work in Garage and consult with instructors  
Faculty: DR SB

Empathy and Research (1h)

Students 10:30-11:30  
Faculty: DR SB

Wednesday 8/30

Project Work & Individual Instruction

Students work in Garage and consult with instructors  
Faculty: DR SB

Milestone 1: Start(ing) Up

One hour meeting with advisor per team schedule.  
Faculty: DR SB BS PD DT SC AS EM

What's Due

3. #Wheredidthetimego? Report
4. Design Journey Blog

### Phase II The Problem 0.2

3

Monday 9/4

Labor Day: No Class

Wednesday 9/6

Project Work & Individual Instruction

Students work in Garage and consult with instructors  
Faculty: DR SB

What's Due

5. #Wheredidthetimego? Report
6. Project Check In
7. Design Journey Blog

4

Monday 9/11

**Project Work & Individual Instruction**

Students work in Garage and consult with instructors  
Faculty: DR SB

**Peer Feedback Opportunity**

per schedule  
Faculty: DR SB

**Project Related Workshop (1h)**

By interest  
Faculty: SB DR 10:30-1:50

Wednesday 9/13

**Project Work & Individual Instruction**

Students work in Garage and consult with instructors  
Faculty: DR SB

**What's Due**

- 8. #Wheredidthetimego? Report
- 9. Project Check In
- 10. Design Journey Blog

5

Monday 9/18

**Faculty Critique A**

Half of teams 10:30-1:50  
Faculty: SB DR SC PD DT

Wednesday 9/20

**Faculty Critique B**

Half of teams 10:30-1:50  
Faculty: SB DR AS PD EM

**Milestone 2: The Problem Version 0.2**

One hour meeting with advisor per team schedule.  
Faculty: DR SB BS PD DT SC AS EM per team schedule

**What's Due**

- 11. #Wheredidthetimego? Report
- 12. Milestone 2 Objectives
- 13. Design Journey Blog
- 14. Problem Version 0.2

## Phase III Deliverable O

6

Monday 9/25

**Project Work & Individual Instruction**

Students work in Garage and consult with instructors  
Faculty: DR SB

**Critical Idea Seminar (1h)**

Select session: 10:30-11:30 or 12:30-1:30  
Faculty: DR SB

Wednesday 9/27

**Project Work & Individual Instruction**

Students work in Garage and consult with instructors  
Faculty: DR SB

**What's Due**

- 15. #Wheredidthetimego? Report
- 16. Project Check In
- 17. Design Journey Blog

7

Monday 10/2

**Project Work & Individual Instruction**

Students at work in Garage and consult with instructors  
Faculty: DR SB

**Project Related Workshop (1h)**

By interest  
Faculty: SB DR 10:30-1:50

Wednesday 10/4

**Project Work & Individual Instruction**

Students work in Garage and consult with instructors  
Faculty: DR SB

**What's Due**

- 18. #Wheredidthetimego? Report
- 19. Project Check In
- 20. Design Journey Blog

8

Monday 10/9

**Project Work & Individual Instruction**

Students work in Garage and consult with instructors  
Faculty: DR SB

**Peer Feedback Opportunity**

per schedule  
Faculty: DR SB

Wednesday 10/11

**Project Work & Individual Instruction**

Students work in Garage and consult with instructors  
Faculty: DR SB

**What's Due**

- 21. #Wheredidthetimego? Report
- 22. Project Check In
- 23. Design Journey Blog

9

Monday 10/16

**Faculty Critique A**

Half of teams 10:30-1:50  
Faculty: SB DR SC PD DT

Wednesday 10/18

**Faculty Critique B**

Half of teams 10:30-1:50  
Faculty: SB DR AS PD EM

**Milestone 3 Deliverable O**

One hour meeting with advisor per team schedule.  
Faculty: DR SB BS PD DT SC AS EM

**What's Due**

- 24. #Wheredidthetimego? Report
- 25. Milestone 3 Meeting
- 26. Design Journey Blog
- 27. Milestone 3 Objectives

## Phase IV Bell Laps

10

Monday 10/23

**Project Work & Individual Instruction**

Students work in Garage and consult with instructors  
Faculty: DR SB

**Topical Workshops**

Students sign up for one or more workshop(s)  
Faculty: DR SB 10:30-1:50

Wednesday 10/25

**Project Work & Individual Instruction**

Students work in Garage and consult with instructors  
Faculty: DR SB

**What's Due**

- 28. #Wheredidthetimego? Report
- 29. Project Check In
- 30. Journey Blog

11

Monday 10/30

**Project Work & Individual Instruction**

Students work in Garage and consult with instructors  
Faculty: DR SB

**Critical Idea Seminar (1h)**

Select session: 10:30-11:30 or 12:30-1:30  
Faculty: DR SB

**Peer Feedback Opportunity**

per schedule  
Faculty: DR SB

Wednesday 11/1

**Project Work & Individual Instruction**

Students work in Garage and consult with instructors  
Faculty: DR SB

**What's Due**

- 31. #Wheredidthetimego? Report
- 32. Project Check In
- 33. Design Journey Blog

12

Monday 11/6

## Project Work &amp; Individual Instruction

Students work in Garage and consult with instructors  
Faculty: DR SB

Wednesday 11/8

## Project Work &amp; Individual Instruction

Students work in Garage and consult with instructors  
Faculty: DR SB

## What's Due

- 34. #Wheredidthetimego? Report
- 35. Project Check In
- 36. Design Journey Blog

13

Monday 11/13

## Project Work &amp; Individual Instruction

Students work in Garage and consult with instructors  
Faculty: DR SB

Wednesday 11/15

## Project Work &amp; Individual Instruction

Students work in Garage and consult with instructors  
Faculty: DR SB

## Milestone 4: Bell Laps

One hour meeting with advisor per team schedule.  
Faculty: DR SB BS PD DT SC AS EM

## What's Due

- 37. #Wheredidthetimego? Report
- 38. Milestone 4 Meeting
- 39. Design Journey Blog

Phase V December *en charrette*

14

Monday 11/20

## Project Work &amp; Individual Instruction

Students work in Garage and consult with instructors  
Faculty: DR SB

Wednesday 11/22

## Thanksgiving Break

## What's Due

- 40. #Wheredidthetimego? Report

15

Monday 11/27

## Multi Faculty Final Critique

Students 10:30-1:50  
Faculty: DR SB EM BS SC DT AS SC PD

Wednesday 11/29

## Multi Faculty Final Critique

Students 10:30-1:50  
Faculty: DR SB EM BS SC DT AS SC PD

## Milestone 5: December and 2018

One hour meeting with advisor per team schedule.  
Faculty: DR SB BS PD DT SC AS EM per team schedule

## What's Due

- 41. #Wheredidthetimego? Report
- 42. Design Journey Blog