





Better Course Scheduling for SBU

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Scheduling Problems Part 1

Class registration basically started last week

We are busy looking for courses to fulfill the requirement for graduation

Sometimes we look at recommended courses

Looks at 219 and 220

Final hits, why the heck is it back-to-back day?

That's what happened during my sophomore year



Scheduling Problems Part 2

Solar is trash, so we use schedule builder

Schedule builder is easy to use, but....

It's not the most efficient tool out there.

What about the the midterm dates? Final dates? What if two classes have the same day final, or back to back?

Perhaps teaching rating will be nice? Or show classes I need to take?

Add that classie eval in too

3 class section(s) found

CSE 308 - Software Engineering							
Class	Section	Days & Times	Room	Instructor	Meeting Dates	Status	
54543	01-LEC Spring	TuTh 1:00PM - 2:20PM	STALLER CTR M0113 WESTCAMPUS	Richard McKenna	01/28/2019 - 05/22/2019		select
Class	Section	Days & Times	Room	Instructor	Meeting Dates	Status	
54544	02-LEC Spring	MoWe 5:30PM - 6:50PM	COMPUTER SCI 2120 WESTCAMPUS	Robert Kelly	01/28/2019 - 05/22/2019		
Class	Section	Days & Times	Room	Instructor	Meeting Dates	Status	
56692	90-LEC Spring SK	TuTh 12:30PM - 1:50PM	OFFCAMPUS OUTOFCNTRY	Stuart Eisenstadt	02/25/2019 - 06/18/2019		select

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Stony Brook University SBU Class Find



Stony Brook University

Classie Evaluation Explorer

Scheduling Problems Part 3

Not a big problem for me, but majority of the classes for cse falls on good old Tuesdays and Thursdays

Other major may have similar issues

Problem for some people

Would be kind of nice to spread out this schedule

Personal opinion

Fall 2018			
CSE 300	CSE 373	CSE 303	AMS 301
TUTH 1:00pm	TUTH 1:00pm	TUTH 10:00am	TUTH 2:30pm
TUTH 2:30pm			TUTH 10:00am
TUTH 10:00am			TUTH 4:00pm
TUTH 11:30am			
TUTH 2:30pm			
MW 5:30pm			

Problems in the Final Exam Schedule

There is a major problem with the campus handling of final exams.

Many students find that they have multiple exams within a 24 hour time period.

This creates stress for students as it leaves limited time for studying especially when these tests occur in the middle of the week.

Through studying prior schedules we were able to identify collisions among exam times and propose solutions to resolve them.

Problems In the Final Exam Schedule

Given the final exam schedule of the past and current years, we were able to devise sample schedules based on each academic semester.

For example: Junior year...

Junior Year																				
	Fall 2017				Spring 2018						Fall 2018					Spring 2019				
	CSE 300	CSE 320	CSE 303	AMS 301	CSE 312	CSE 306 or	CSE 308	CSE 373	AMS 310		CSE 300	CSE 320	CSE 373	AMS 301		CSE 312	CSE 303	CSE 306 or	CSE 308	AMS 310
	TUTH 1:00pm	TUTH 8:30 am	MW 2:30pm	MWF 10:00am	MW 5:30pm	MW 4:00pm	MW 5:30pm	MF 1:00pm	MW 5:30pm		TUTH 1:00pm	TUTH 10:00am	TUTH 1:00pm	TUTH 2:30pm		MW 2:30pm	TUTH 1:00pm	TUTH 2:30pm	TUTH 5:30pm	MW 4:00pm
	TUTH 2:30pm			MW 2:30pm	TUTH 1:00pm	TUTH 10:00 am			MW 8:30 am		TUTH 2:30pm			TUTH 10:00am		TUTH 2:30pm		MW 4:00pm		MW 7:00pm
	TUTH 10:00am				MWF 11:00am						TUTH 10:00am			TUTH 4:00pm		MW 4:00pm				
	TUTH 11:30am										TUTH 11:30am					TUTH 5:30pm				
	TUTH 2:30pm										TUTH 2:30pm					TUTH 7:00pm				
	FALL 2017				SPRING 2018						FALL 2018					SPRING 2019				
	CSE 303 MW 2:30pm				MW 5:30pm			MW 4:00pm	TUTH 10:00am		TUTH 10:00am					TUTH 1:00pm			TUTH 1:00pm	
	AMS 301 MWF 10:00am				MF 1:00pm		or	MF 1:00pm			TUTH 1:00pm					TUTH 2:30pm		or	TUTH 2:30pm	MW 4:00pm
	CSE 320 TUTH 8:30am				MW 8:30am			MW 5:30	MW 8:30	AMS 301	TUTH 2:30	TUTH 4:00pm				MW 4:00pm	MW 7:00pm		MW 4:00pm	MW 7:00pm
	CSE 300 whenever				CSE 312	TUTH 1:00pm	TUTH 10:00am	CSE 312 whenever			CSE 300 whenever					CSE 312 whenever			CSE 312 whenever	
Collisions:																				
CSE 303 & CSE 320 Dec 12th.					CSE 373 & AMS 310 May 14/15			CSE 306 on May 8 or May 11			Dec 20 CSE 320/CSE 373 BACK TO BACK!					May 21			May 21	
AMS 301 Dec 19th.					CSE 308 May 10			May 14 CSE 373			AMS 301 Dec 18					May 15			May 16	May 14
					if 312 not in class either May 11 or May 15			AMS 310 May 10 or May 15								May 14	May 21		May 14	May 21

Disclaimer: This is one set of possible schedules only. *Some classes such as CSE 300 and CSE 312 are held many times and do not have a significant impact on the student's schedule due to many available options.

The Process...

Stony Brook provides archives to prior course bulletins and course schedules from prior years.

Choosing particular consecutive semesters, we looked at the recommended course sequences and devised schedules.

With the newly made schedules we used the course schedules to find the possible meeting times of the classes, many of which only meet once.

With the schedules made, we looked at the available old and current final exam schedules to see when the exams were held. In many cases collisions were encountered in which tests were held within a 24 hour period.

The Data...

Schedules for Fall
2017 - Spring 2019

Courses selected based on
recommended course
sequence

Schedule
made from
choosing
available
times of the
class

All meeting
times of the
class in the
given
semester.

Note that some
classes only
offer one
section

Junior Year:																				
	Fall 2017				Spring 2018					Fall 2018					Spring 2019					
	CSE 300	CSE 320	CSE 303	AMS 301	CSE 312	CSE 306 or	CSE 308	CSE 373	AMS 310	CSE 300	CSE 320	CSE 373	AMS 301	CSE 312	CSE 303	CSE 306 or	CSE 308	AMS 310		
	TUTH 1:00pm	TUTH 8:30 am	MW 2:30pm	MWF 10:00am	MW 5:30pm	MW 4:00pm	MW 5:30pm	MF 1:00pm	MW 5:30pm	TUTH 1:00pm	TUTH 10:00am	TUTH 1:00pm	TUTH 2:30pm	MW 2:30pm	TUTH 1:00pm	TUTH 2:30pm	TUTH 5:30pm	MW 4:00pm		
	TUTH 2:30pm			MW 2:30pm	TUTH 1:00pm	TUTH 10:00 am			MW 8:30 am	TUTH 2:30pm			TUTH 10:00am	TUTH 2:30pm		MW 4:00pm		MW 7:00pm		
	TUTH 10:00am				MWF 11:00am					TUTH 10:00am			TUTH 4:00pm	MW 4:00pm						
	TUTH 11:30am									TUTH 11:30am				TUTH 5:30pm						
	TUTH 2:30pm									TUTH 2:30pm				TUTH 7:00pm						
	FALL 2017				SPRING 2018					FALL 2018				SPRING 2019						
	CSE 303 MW 2:30pm				MW 5:30pm				MW 4:00pm	TUTH 10:00am			TUTH 10:00am	TUTH 1:00pm				TUTH 1:00pm		
	AMS 301 MWF 10:00am				MF 1:00pm		or		MF 1:00pm				TUTH 1:00pm	TUTH 8:30pm		or		TUTH 2:30pm	MW 4:00pm	
	CSE 320 TUTH 8:30am				MW 8:30am				MW 5:30	MW 8:30	AMS 301		TUTH 2:30	TUTH 4:00pm				MW 4:00pm	MW 7:00pm	MW 4:00pm
	CSE 300 whenever			CSE 312	TUTH 1:00pm	TUTH 10:00am			CSE 312 whenever				CSE 300 whenever					CSE 312 whenever		CSE 312 whenever
Collisions:																				
CSE 303 & CSE 320 Dec 12th					CSE 373 & AMS 310 May 14/15			CSE 306 on May 8 or May 11		Dec 20 CSE 320/CSE 373 BACK TO BACK!				May 21				May 21		
AMS 301 Dec 19th					CSE 308 May 10			May 14 CSE 373		AMS 301 Dec 18				May 15				May 16	May 14	May 21
					if 312 not in class either May 11 or May 15			AMS 310 May 10 or May 15						May 14	May 21			May 14	May 21	

Times of the final exams
for a class as well as
when there are exams
within 24 hours

Clear cases of overlapping were found to exist in nearly each semester. For example Fall 2017 shows CSE 303 and CSE 320 both on December 12th while Fall 2018 has CSE 320 and CSE 373 directly back to back.

A Solution: Rearranging the Finals Schedule

The current schedule notably has flaws in the arrangement of classes. Many classes held on the same day in close proximity to each other have exams on the same day. Many computer science courses are only held on tuesday and thursday, forcing students to take classes back to back on these days.

Period → Exam Day ↓	1* 8:00-10:45 AM	2 11:15-1:45 PM	3* 2:15-5:00 PM	4 5:30-8:00 PM	5 8:30-11:00 PM
Wednesday, December 12, 2018	<i>common exam</i> BIO 203, WAE 190, 192, 194	TUTH 08:30 AM - 09:50 AM	<i>common exam</i> BIO 201, MAP 103	MWF 02:30 PM - 03:23 PM or MW 02:30 PM - 03:50 PM	MW 04:00 PM - 05:20 PM
Thursday, December 13, 2018	<i>common exam</i> BIO 204	<i>common exam</i> MAT 122, 125, 131, 211	<i>common exam</i> MAT 123, 126, 132, 203	TUTH 05:30 PM - 06:50 PM	MWF 09:00 AM - 09:53 AM
Friday, December 14, 2018	<i>common exam</i> CHE 129, 321, 332	MWF 11:00 AM - 11:53 AM	<i>common exam</i> PHY 121, 122, 131, 141	No exams	No exams
Monday, December 17, 2018	<i>common exam</i> CHE 131, 132, 152	<i>common exam</i> MAT 127, 303	<i>common exam</i> ECO 108	MW 05:30 PM - 06:50 PM	MW 08:30 PM - 09:50 PM or M 7:00-10:00 PM
Tuesday, December 18, 2018	<i>common exam</i> CSE 114	TUTH 02:30 PM - 03:50 PM	TUTH 04:00 PM - 05:20 PM	MWF 12:00 PM - 12:53 PM	TUTH 08:30 PM - 09:50 PM or TU 7:00-10:00 PM
Wednesday, December 19, 2018	MWF 08:00 AM - 08:53 AM or MW 08:30 AM - 09:50 AM	TUTH 11:30 AM - 12:50 PM	MWF 10:00 AM - 10:53 AM	MW 07:00 PM - 08:20 PM or W 7:00-10:00 PM	TUTH 07:00 PM - 08:20 PM or TH 7:00- 10:00 PM
Thursday, December 20, 2018	TUTH 10:00 AM - 11:20 AM	TUTH 01:00 PM - 02:20 PM	MF 01:00 PM - 02:20 PM	No exams	No exams

Rearranging the Finals Schedule

In the revised schedule, the arrangement relies more on timing. The night time slots are reserved mostly for late night classes in case of reasons such as work. Common exam slots are also left untouched. A good approach is to limit the amount of same day time slots to same day exams. When this is not possible though it is better to place more unlike times closer to each other in order to prevent those with back to back classes from having back to back tests if the cases arise.

EXAMPLE REVISED SCHEDULE					
	8:00-10:45	11:15-1:45	2:15-5:00	5:30-8:00	8:30-11:00
Wed Dec 12	com	TUTH 8:30am	com	MW 10:00am	MW 8:30pm
Dec 13	com	com	com	TUTH 5:30pm	MW 7:00pm
Dec 14	com	MWF 8:00am	com	no test	no test
Dec 17	com	com	com	TUTH 1:00pm	MWF 12:00pm
Dec 18	com	TUTH 11:30am	MWF 2:30pm	MW 5:30pm	TUTH 8:30pm
Dec 19	MWF 9:00am	TUTH 2:30pm	MWF 1:00pm	MW 4:00pm	TUTH 7:00pm
Dec 20	TUTH 10:00am	MWF 11:00am	TUTH 4:00pm	no test	no test

Rough revised schedule implementing discussed means

Temporary Fix

Given the current semester's dilemma between CSE 320 and 373 finals, either class could have been replaced by CSE 310, which is currently suggested for the next semester. It's scheduled for monday/wednesdays, so the final wouldn't conflict.

JUNIOR	
SPRING	Credits
CSE 312 (STAS, CER, ESI)	3
CSE 320	3
CSE 373	3
Elective	3
AMS 310	3
Total	15
SENIOR	
FALL	Credits
CSE 416	3
CSE technical elective	3
CSE 310	3
Elective	3
Elective	3
Total	15

Another Problem

- Exams are often bunched up into only a few days

[illegible]

Reading Day(s)

- Stony is notorious for only giving students one reading day
- Other notable schools:
 - Columbia - 3
 - Binghamton - 2
 - University of Rochester - 2

Mon, Dec. 10	<ul style="list-style-type: none">• LOA/Term Withdrawal: Last day to take a leave of absence or withdraw from the University. Students can process via SOLAR or submit appropriate form to the Office of Registrar.• Classes End: Last day of classes.
Tue, Dec. 11	<ul style="list-style-type: none">• Reading Day(s)
Wed, Dec. 12- Thu, Dec. 20	<ul style="list-style-type: none">• Finals

Alternative Scheduling

- Finals on the same days should be classes that can't be/usually aren't taken together
- Utilize more finals days (given we have a few more reading days)

[illegible]

New Schedule Builder

What we want it to be...

- Accessible
- Informative
- Intuitive

Why not have one app for all of these?



Stony Brook University Degree Works

Cost and maintenance

There needs to be a team of people responsible for creating and maintaining the app.

Luckily the problem is scalable and modular!

Core features:

- Show information like exam times
- Implement scheduling algorithms
- Info on major/minor requirements

Wishlist features:

- Social media integration
- RateMyProfessor/Piazza/Blackboard integration

CourseTable: Informed study course selection

"There was no centralized database at Yale that allowed students to perform course comparisons at-a-glance."

"Two students programmed an interface that would compile everything in one place"

Washington Post, January 16th 2014

"I want to know how highly people have rated each class"

Rated ↓	Rated (Class) ↓	Rated (Prof) ↓
5.00	5.00	4.24
4.95	4.95	4.94
4.91	4.91	4.94
4.90	4.90	4.95

CourseTable

Updated 1/10

Number of Facebook friends also shopping this course

See a friend's worksheet

Show Worksheet

Course #	Section #	Section Name	Times	#1	#2	Rated (Class)	Rated (Prof)	Area	Work	Professors	
15	★	VIET 128 1 Elementary Vietnamese I	MF 9:25-11:15	3	5.00	5.00	4.24	L	2.67	Quang Phu Van	
16	★	PLSC 340 1 Public Schools & Public Policy	Tu 15:30-17:30	8	4.95	4.95	4.94	Sa	4.35	John Star	
17	★	SPAC 442 1 Public Schools & Public Policy	Tu 15:30-17:30	8	4.91	4.91	4.94	Sa	4.32	John Star	
18	★	ESAS 450 1 Writing about Gender	Tu 15:30-17:30	1	5	4.90	4.90	4.95	WTF	4.19	Anna Farkman
19	★	PLSC 207 1 Refugee Law and Policy	Tu 15:30-17:30	12	4.91	4.90	4.90	Sa	4.64	Alexander Dehne	
20	★	MSAS 230 1 Rain Forest Expedition & Lab	MF 10:30-11:20	15	4.90	4.90	4.26	Sa	3.45	Carl Bacon Black	
21	★	MSAS 230 1 Rain Forest Expedition & Lab	WTF 10:30-11:20	15	4.90	4.90	4.26	Sa	3.45	Carl Bacon Black	
22	★	SPAC 216 1 Refugee Law and Policy	Tu 15:30-17:30	12	4.91	4.90	4.90	Sa	4.38	Alexander Dehne	
23	★	ITSL 125 1 Elementary Italian I	MF 11:30-12:20	8	4.90	4.90	4.24	L	3.88	Francesco Rabbio	
24	★	MSAS 214 1 Competition: Musical Theater	F 11:30-12:20	7	4.90	4.90	4.90	W	4.35	Jessica Tosen	
25	★	PHYS 270 1 Thermodynamics	F 9:25-11:15	5	4.90	4.90	4.21	Sa	3.67	Wei-Kuang Ahl	

Number of Facebook friends also shopping this course

"I'd like to know which of my social contacts plan to attend each course"

See a friend's worksheet

"I'm interested in seeing my best friends' course selections"

Source:

<https://image.slidesharecdn.com/tft14presentationfinal1-140217091652-phpapp02/95/tft14-the-end-of-its-monopoly-on-trust-vital-lessons-from-the-consumer-space-18-638.jpg?cb=1392642391>

Final Exam Policy

Cornell's final exam policy states, in the event that a student has **more than two** exams in 24 hours, members of the faculty are urged to grant student requests for a make-up examination (<https://registrar.cornell.edu/exams/final-exam-policies>).

Princeton's policy allows for **students with two in-class exams** may submit an application to postpone one exam until the following day (<https://registrar.princeton.edu/final-exams/policy/>).

Stony Brook leaves the burden entirely on the student to avoid multiple examinations on the same day, stating, **"It is the responsibility of the student to plan a class schedule that avoids exam conflicts and too many exams in the same day."**

(https://www.stonybrook.edu/commcms/registrar/registration/_exams/1188/1188%20Fall%202018%20FINAL%20032318.pdf)

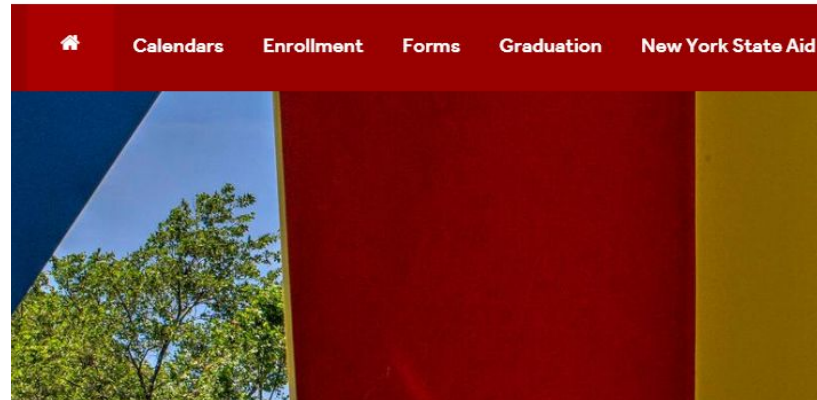
Agents to help resolve the issue

The dean's main role is to advocate for students needs and services as well as the coordination and development in the community.



Agents to help resolve the issue

The Registrar's Office is in charge of creating and publishing the University classes and Final Exam Schedules.



Agents to help resolve the issue

The **Applied Mathematics & statistics department**.

The Scheduling problem is a graph theory problem ,
working with AMS professors to optimize finals
scheduling and algorithm for schedule builder .

