

L01 - WEDNESDAY, AUGUST 21  
CPSC 4150/6150 - FALL 2019

# COURSE POLICIES + INTRODUCTIONS



# LECTURE OBJECTIVES

BY THE END OF THIS CLASS, YOU SHOULD BE ABLE TO:

List policies related to attendance, grading, and classroom behavior

List course outcomes related to successfully completing CPSC 4150/6150

Know the names of the CPSC 4150/6150 teaching staff

Know how to communicate effectively and efficiently to the CPSC 4150/6150  
teaching staff

Understand expectations of the instructor and his plan for the course

# HELLO WORLD!

Attendance at <http://checkin.cs.clemson.edu>

Today's attendance code is:

GQ63X



# CPSC 4150/6150 FALL 2019

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8:00 - 8:55

Wake Up

Wake Up

Wake Up

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9:05 - 9:55

Section 1

Section 1

Section 1

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Mondays

Wednesdays

Fridays



# COURSE INSTRUCTOR

**Dr. Christopher Plaue**

McAdams 100F

864.656.6933 (office)



cplaue@clemson.edu

"Doc" or "Dr. Plaue"

## Office Hours:

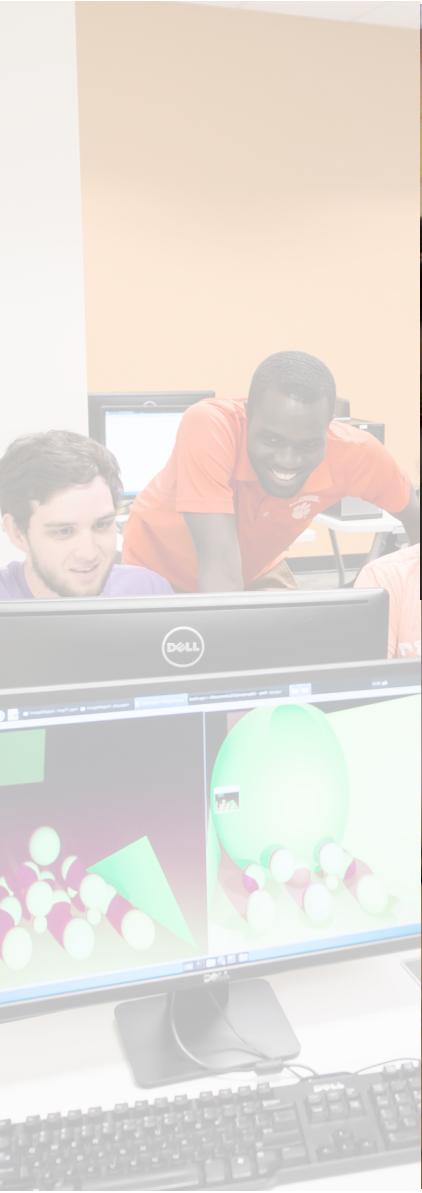
Mondays: 10:30 - 11:30 (starting next week)

Wednesdays: 2:30 - 3:30 (starting next week)

Please post non-grade related questions to the class

Piazza site-- more on this later.





# COURSE ASSISTANT

**Josh Norman**

jmnorma@clemson.edu

## **Office Hours:**

Thursdays 2-3 in McAdams 110

Piazza and email

## **Fun facts:**

Junior in Computer Science from Asheville, Nc.

Things I love: My dog, hiking and photography

Music: The band Camino ( new album drops Friday )



# WHAT'S A MOBILE DEVICE?

[www.apple.com](http://www.apple.com)

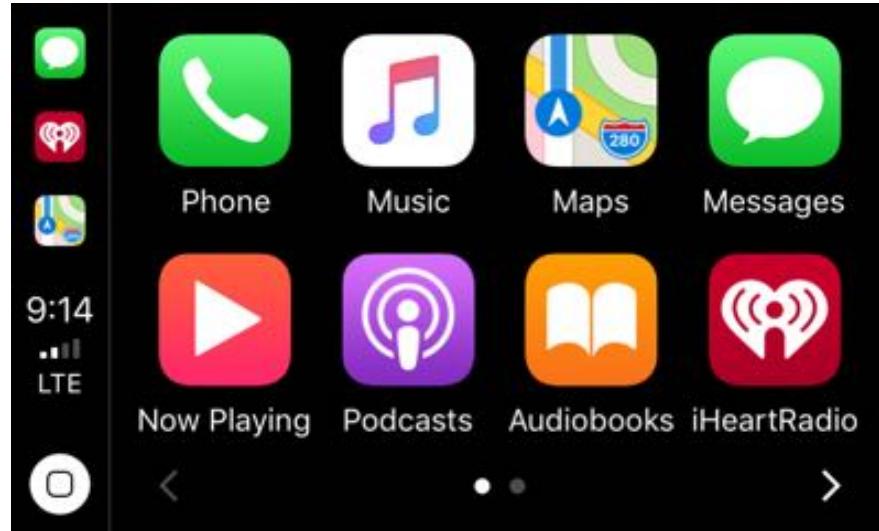


[store.google.com](http://store.google.com)



 CLEMSON  
SCHOOL OF COMPUTING

# WHAT'S A MOBILE DEVICE?



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# WHAT'S A MOBILE DEVICE?



# WHAT'S A MOBILE DEVICE?



# WHAT'S A MOBILE DEVICE?

# WHAT'S A MOBILE DEVICE?



SO...

# COURSE STRUCTURE

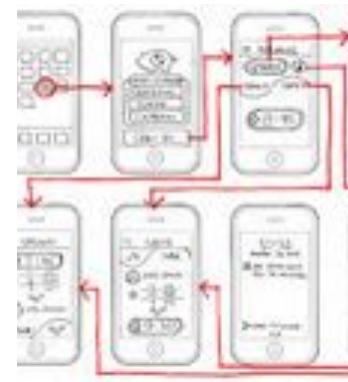


CODING



+

HISTORY



+

DESIGN/HCI



+

FUTURE

# COURSE STRUCTURE



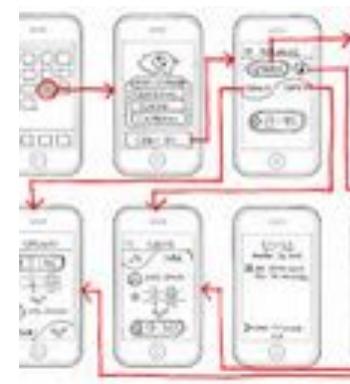
CODING

+



HISTORY

+



DESIGN/HCI

+



FUTURE

# COURSE OUTCOMES

Design, implement, and document a mobile application for a specified mobile platform.

Discuss the constraints that mobile platforms put on developers.

Discuss the performance vs. power tradeoff.

Compare and contrast mobile programming with general purpose programming.

Identify significant contributions or milestones in computing relevant to the mobile application development.

List principles of social interaction, sensation/perception, and/or psychology that are relevant to designing mobile applications.

# WHY NOT X?

# USER-CENTERED DESIGN / REQUIREMENTS ANALYSIS

CPSC 4140/6140: Human + Computer Interaction

CPSC 3710: Systems Analysis and Design

CPSC 3720: Introduction to Software Engineering

Most Programmers



UCD is an iterative cycle of designing, implementing, and evaluating

Understanding users' physical and cognitive abilities, knowledge and skills, motivation, and culture

Danger in assuming all users are alike and all users are like the designer



# COURSE MATERIALS

Required Materials:

Textbook: zyBook. CPSC 4150: Mobile Device Software Development

ISBN: 978-1-5418-7865-5

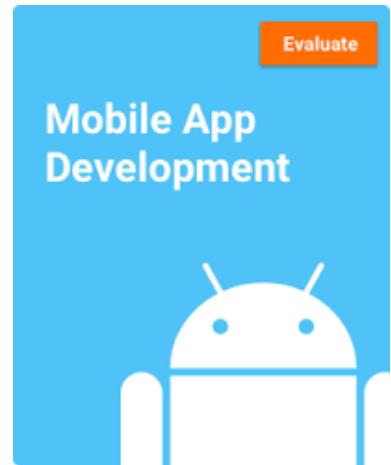
Go to [learn.zybooks.com](https://learn.zybooks.com) and enter zyBook code:

CLEMSONCPSC4150PlaueFall2019

Supplemental readings will be posted on Canvas

Optional textbook:

Cortez and Cortez, Android Programming Concepts. ISBN-13: 978-1284070705



## COURSE POLICIES



# ZYBOOK ACTIVITIES

Participation activities for each chapter will be due before class.

Number of zyBook points for activities will scale down to approximately 6-7 points for each chapter

Each set of activities is ~1% towards your course grade; ~8.3% total

PARTICIPATION ACTIVITY | 2.2.1: LinearLayout.

Refer to the figure above.

1) The only difference between the two layouts above is that the layout on the right uses vertical orientation.

True  
 False

2) The image shows the result of changing Button 1's layout\_width to `match_parent` in the LinearLayout on the left.



True  
 False



# SUBMITTING ASSIGNMENT

Each individual non-zyBooks assignment and team assignment will have explicit submission instruction including

- Due date (and if applicable, late deadline and penalty)

- Formatting instructions

- Delivery instructions

Assignments showing inattention to detail may be docked points or returned ungraded

## COURSE POLICIES



# REGRADE REQUESTS

Regrade requests are due within 7 days of me returning back the graded assignment

Submit as a single .ZIP file to the regrade request assignment on Canvas

All materials relevant to the assignment and up to one-page indicating why a regrade request is warranted.

All regrade requests are performed at the end of the semester if a change in the grade on the assignment results in a change in course grade

The entire assignment will be regraded

## COURSE POLICIES



2<sub>T03</sub>

# 2 TO 3

For every credit hour of a course,  
the rule of thumb is 2-3 hours of work outside of class  
**Plan for 6 to 9 hours of work outside of lecture**

# COMMUNICATION

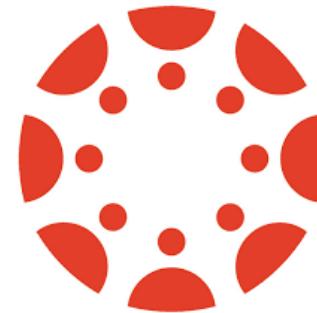
Questions not related to grades should be posted on the class Piazza site.

Any emails from you to me must come from your official Clemson email address

All emails from me to you will be sent to your @clemson.edu email address (which is the official email address used on campus)

You may want to check junk and/or forwarding

Monitor Canvas and Piazza for announcements



The screenshot shows a Piazza course page for 'CAPP-30003'. On the left, there's a sidebar with 'What is Piazza?' and a 'Welcome to Piazza!' message. The main area displays a question titled 'What is the purpose of Piazza in CAPP30003? It is a place...'. Below it, there's a response from 'The Instructor' with a link to 'View individual responses'.



## COURSE POLICIES

# DEVICE POLICY



We will use laptops periodically in class for quizzes and in-class assignments

If using your laptop on your own, please do not distract others

Make sure devices have power before coming to class

## COURSE POLICIES

# ACCESSIBILITY

If you require accommodations, please schedule an appointment with me or come to office hours.

I'm happy to provide reasonable accommodations, however, the best possible accommodations typically require advance notice for planning purposes.

Your projects and assignments will take into account accessibility standards.

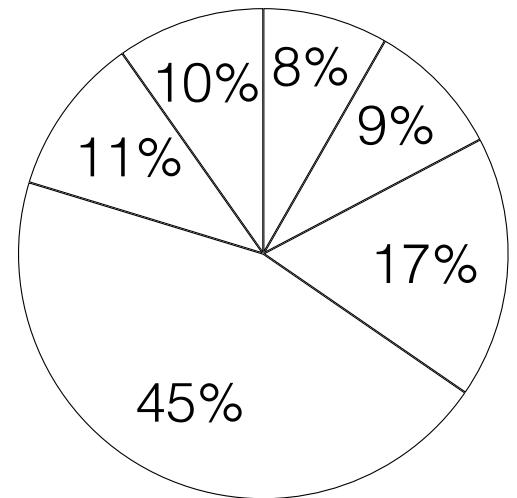
## COURSE POLICIES



# GRADING RUBRIC

<b>Category</b>	<b>Points</b>	<b>%</b>	<b>Notes</b>
Individual Assignments	230	~35%	Includes zyBooks participation, individual assignments, and SWOT
Participation + Spot Checks + Quiz	65	~10%	Includes participating in-class and online, zyBook spot checks, and a quiz
Course Project	70	~11%	Team project with documentation
Exams	300	~45%	Two exams and one final exam

zyBooks Participation  
SWOT Labs  
Individual Assignments  
Exams/Final  
Course Project  
Participation + Spot Checks + Quiz



## COURSE POLICIES

# GRADUATE COMPONENT



COURSE  
POLICIES



# GRADUATE COMPONENT



COURSE  
POLICIES



# GRADUATE COMPONENT

Pick a framework/platform/concept and

Perform a SWOT analysis

Prepare an introductory presentation

Prepare a meaningful and original lab assignment

Receive feedback and iterate

S	W	O	T
STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<ul style="list-style-type: none"><li>Things your company does well</li><li>Qualities that separate you from your competitors</li><li>Internal resources such as skilled, knowledgeable staff</li><li>Tangible assets such as intellectual property, capital, proprietary technologies etc.</li></ul>	<ul style="list-style-type: none"><li>Things your company lacks</li><li>Things your competitors do better than you</li><li>Resource limitations</li><li>Unclear unique selling proposition</li></ul>	<ul style="list-style-type: none"><li>Underserved markets for specific products</li><li>Few competitors in your area</li><li>Emerging need for your products or services</li><li>Press/media coverage of your company</li></ul>	<ul style="list-style-type: none"><li>Emerging competitors</li><li>Changing regulatory environment</li><li>Negative press/media coverage</li><li>Changing customer attitudes toward your company</li></ul>

 WordStream

## COURSE POLICIES



# INCLEMENT WEATHER



COURSE  
POLICIES



# WHAT ARE PITFALLS OF MOBILE APPLICATION SOFTWARE DEVELOPMENT?

# WHY SHOULD YOU CARE ABOUT UI DESIGN?



# Apple CarPlay

## The best iPhone experience on four wheels.

Coming Soon



By JERRY EDGERTON / MONEYWATCH / October 25, 2012, 12:45 PM

# Ford Slammed in New Consumer Reports Reliability Survey

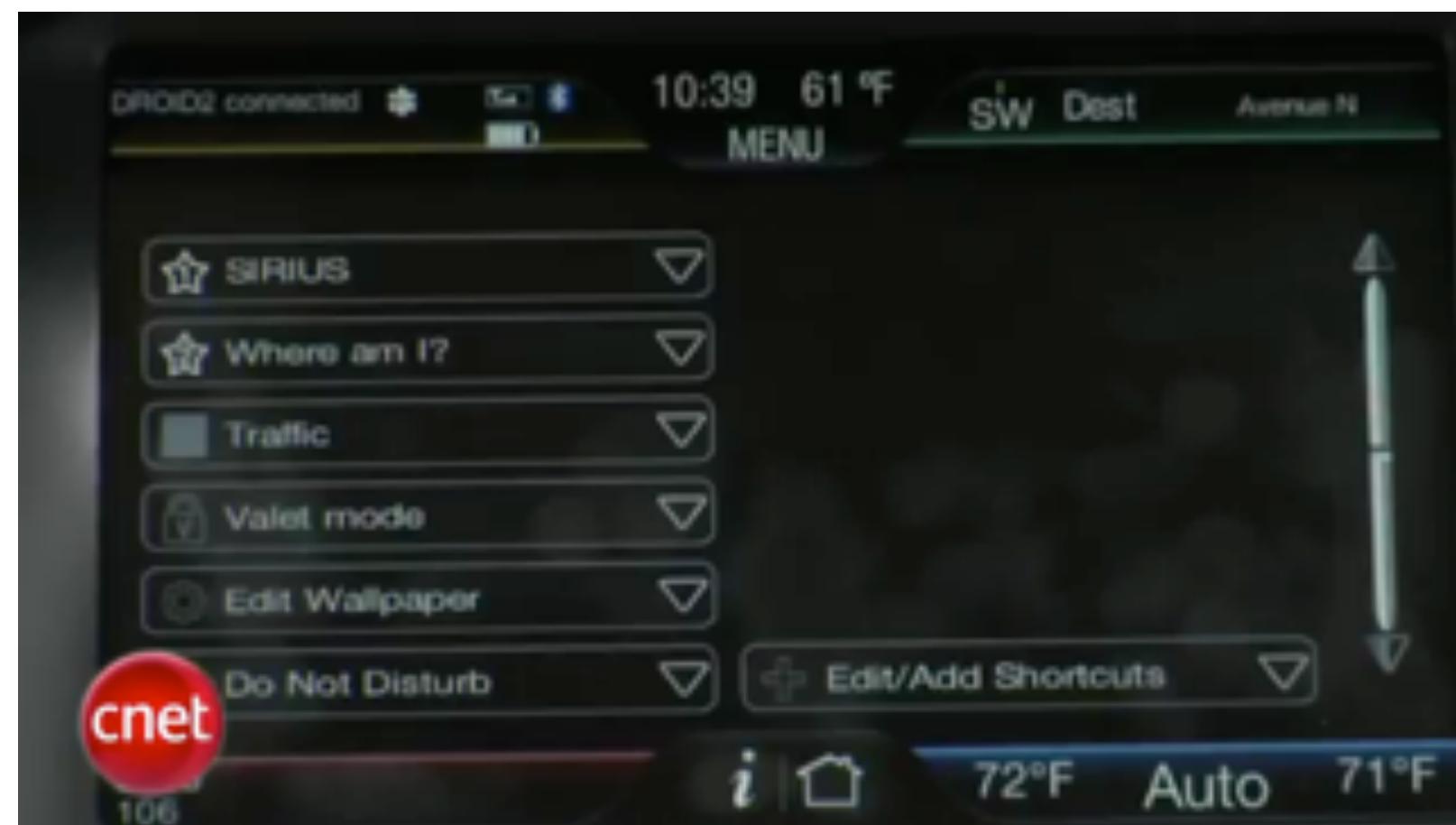
Comment / 1 Shares / 17 Tweets / 0 Stumble / 0 Email

More +

After high quality ratings in recent years, Ford has dropped sharply in this year's Consumer Reports reliability survey because of problems with new models and new technologies.



The magazine said Ford's drop from 10th place last year to 20th in the survey released today stemmed from problems with three new or redesigned models: the Explorer, Fiesta (at right) and Focus. In particular, CR's survey respondents reported problems with MyFord Touch -- a system for playing music and making phone calls -- and with a new automated manual transmission used in the Fiesta and Focus, which allows shifting without a



# UI/UX TO DIFFERENTIATE PRODUCTS





<https://www.hillelwayne.com/post/performance-matters/#fn:1>

# EMT PATIENT CARE REPORTS

PREHOSPITAL RUN REPORT												
Run #	Date	Call received from:	911	Agency:		Responsible Location:		Incident #:				
Incident Location:		City		Zip		Call Type:	<input type="checkbox"/> BLS	<input type="checkbox"/> ALS	<input type="checkbox"/> Dry Run/Canceled	<input type="checkbox"/> PFT		
						Wk. Type:	<input type="checkbox"/> Medical	<input type="checkbox"/> Trauma	<input type="checkbox"/> Non-PFT			
Patient Name:		Sex:	WT (kg):	Hgt:	DOB:	Time:			Code:	Order Master		
Billing Address:		City		Zip		Incident Occurred:						
Chief Complaint:						Received Call:						
						Emergency:						
History of Incident:						Ambulance On Scene:						
						Patient Contact:						
Medications:		<input type="checkbox"/> See attached list		MDx / Specialist:		Depart Scene:						
						Delegation:						
						Available:			TB Wk:			
Allergies:						Region Called to:	<input type="checkbox"/>	Phone:	Radios:	MU:	Line:	
<input type="checkbox"/> NSAID		<input type="checkbox"/> PCN		<input type="checkbox"/> ASA		Priority:						
<input type="checkbox"/> DNR		<input type="checkbox"/> Sulf		<input type="checkbox"/> MS		Date:						
<input type="checkbox"/> Latex		<input type="checkbox"/> Clot		<input type="checkbox"/> Meds		On/Off Adm:						
CARE PRIOR TO ARRIVAL:		<input type="checkbox"/> FOIBS		<input type="checkbox"/> FOIBL		Reasoning Facility:						
						Pr. Regis:	<input type="checkbox"/>	Swans:	<input type="checkbox"/>	Closeout:	<input type="checkbox"/>	
						Pr. Discharge:	<input type="checkbox"/>	Trans Cr:	<input type="checkbox"/>	Special:		
ABC Information				Trauma Information				Trauma Triage Criteria				
Witnessed Arrest?	Time CPR Started:			Witness Alert Called:			Physical Factors:					
By Hand/CPR?	<input type="checkbox"/> Int. Rhythms			<input type="checkbox"/> VT			<input type="checkbox"/> Anatomic Factors					
Was Patient Unconscious?	<input type="checkbox"/> Yes			<input type="checkbox"/> VF			<input type="checkbox"/> Unintentional					
Number of Shocks:	<input type="checkbox"/> Other:			<input type="checkbox"/> Unmonitored			<input type="checkbox"/> Delays					
Pulse after shock:	<input type="checkbox"/> None			<input type="checkbox"/> Other:			<input type="checkbox"/> None					
(IC hours Hospital all)												
Skin Color:	Temperature:	Moisture:	Peeples:	L:	R:	Capillary Refill:	Glasgow Coma Scale					
<input type="checkbox"/> Pale/Normal	<input type="checkbox"/> Warm	<input type="checkbox"/> Dry/Normal	<input type="checkbox"/> Normal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Normal	Eye Opening:	10	9	8	Motor:	
<input type="checkbox"/> Ashen/Dark	<input type="checkbox"/> Cool	<input type="checkbox"/> Moist	<input type="checkbox"/> Delayed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Delayed	Spont.	10	9	8	Object:	
<input type="checkbox"/> Flushed	<input type="checkbox"/> Cold	<input type="checkbox"/> Damp	<input type="checkbox"/> Dilated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> None	To Voice:	10	9	8	Right:	
<input type="checkbox"/> Cyanotic	<input type="checkbox"/> Hot	<input type="checkbox"/> Dry	<input type="checkbox"/> Shallow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Normal	To Pain:	10	9	8	Reactive:	
<input type="checkbox"/> Mottled			<input type="checkbox"/> Non-Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Blood Sugar (mg/dL)	To Stim:	10	9	8	Intubation:	
			Size (cm):			(mg/dL)	Normal:	10	9	8	None:	
Time	BP	Pulse		Resp. Rate	SpO <sub>2</sub>	ETCO <sub>2</sub>	Gangrenous		Pain Scale	Cardiac Rhythm		Death (check)
		BPM	Description:				Left:	Right:		Arrhythmia:		
										Supraventricular tachyarrhythmias		
										Ventricular fibrillation		
										Asystole		
										Pulseless ventricular tachycardia		
										Pulseless bradycardia		
										Other:		
P	Q	R	S	T								
Time	Medication/Procedure:			Size / Dose:	Route:	By Who(s):	Remarks/Response:					
Narrative:												
Team Member #1 - Pt Care			Team Member #2 - Transport			Team Member #3			Receiving Facility			
Signature Cert. Level & Number			Signature Cert. Level & Number			Title:			Certified by:			
									<input type="checkbox"/> Report on Arrival			

"Every minute writing and filing a PCR is a minute not spent on actual treatment. If 0.1% of PCRs have mistakes that waste an hour of a doctor's time, that's 30,000 doctor-hours not spent on other patients."

<https://www.hillelwayne.com/post/performance-matters/#fn:data>

# EMT PATIENT CARE REPORTS

"The ambulance I shadowed had an ePCR. Nobody used it. I talked to the EMTs about this, and they said nobody they knew used it either. Lack of training? «No, we all got trained.» Crippling bugs? No, it worked fine. Paper was good enough? No, the ePCR was much better than paper PCRs in almost every way. It just had one problem: it was too slow."

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I think the difference between UI design and UX design often gets lost in a lot of highfalutin jargon. But at a basic level there is a clear difference: the interface might be well designed and clear, but if it is slow and laggy, the experience of using it will be unpleasant, and people will go out of their way to avoid using whatever it is.

- John Gruber, UI designer, Inventor of Markdown Language, Blogger

SAFELY  
EFFECTIVELY  
EFFICIENTLY  
HAPPILY



WHAT'S NEXT?

# HW-0: STUDENT DOSSIER & DEMOGRAPHICS

Simple exercise to download a template, add images and text, create a PDF file, and upload to Canvas.

Post an ice-breaker to Piazza and configure your Piazza settings

Due on Wednesday, August 28th, at 4:30 PM



# PROGRAMMING CONCEPT QUIZ

20-minute short graded quiz on concepts relate to Java and object-oriented programming.

The pre-req chain for CPSC 4150/6150 are:

CPSC 1010 or 1060: Computer Science I

CPSC 1020 or 1070: Computer Science II      OOP

CPSC 2150: Software Development Foundations    OOP

CPSC 2120: Data Structures and Algorithms

FRIDAY, AUGUST 23



