

Designing User Interfaces for Children

INF 385T

Spring Semester 2021

Class Day and Time: asynchronously (on your own) and Wednesday 9:00am-12:00pm (see Canvas announcements for specific dates)

Class Location: Online (via Canvas website)

Instructor:

Dr. Jakki Bailey
Pronouns: She/Her/Hers

Email: j.bailey@ischool.utexas.edu

Office Hours: TBD



“Welcome to Designing User Interfaces for Children! I am Dr. Jakki Bailey, a faculty member in the School of Information. My research and courses focus on people’s experiences of immersive and extended reality technology like virtual reality and what that means across the lifespan (from children to adults). I look forward to working with you this semester!”

Introduction

Interactive digital technology infiltrates homes, schools, and entertainment venues, changing how people think, and socialize. What is the impact of growing up with substantially greater access to information? How might a user’s age influence such technologies’ use? Throughout the course students will begin to answer these questions to understand and design media-technologies for youth.

The course is designed to mimic a start-up company that creates media-technologies for youth. Students will work in teams to design media-technology products for children, adolescents, and/or teens. The readings, assignments, and activities are designed connect to each other to allow groups to complete their project designs. The structure of the course is to provide

flexibility to allow groups to maximize their work time and to receive individualized feedback from the instructor and TA on their progress.

Course Objectives and Learning Outcomes

The course provides students with an overview of topics related to child development and user interface design for children.

Students will be able to:

- Understand and employ developmental research and theory to design digital interfaces for children
- Effectively identify and evaluate features of media- technology through a cognitive and social developmental lens
- Discuss the pros and cons of if and when to introduce technology into children's lives
- Develop interpersonal communication skills and collaborative work skills

Course Requirements

Classroom Expectations

- Attendance is required for the course.
 - Many of the course activities and assignments are in groups.
 - Failing to attend course penalizes your grades and consequentially the other members of your group.
- Bring the appropriate material for note taking and writing.
 - Although laptops will be used in class, inattentive or discourteous behavior will be noticed and penalized.
 - Before the start of each class, silence all devices such as cellphones, tablets, and computers.
- To foster open discussion, students are asked to be tolerant and considerate of others' viewpoints.

Course Materials

- All relevant class information will be posted on the course website on Canvas.
 - This includes the most recent syllabus, PDFs of the weekly readings, and any relevant links.
 - Course videos will cover the readings as well as material not covered in the readings.
 - The course calendar and readings are subject to change.

Sharing of Course Materials is Prohibited:

No materials used in this class, including, but not limited to, lecture hand-outs, videos, assessments (quizzes, exams, papers, projects, homework assignments), in-class materials, review sheets, and additional problem sets, may be shared online or with anyone outside of the class unless you have my explicit, written permission. Unauthorized sharing of materials promotes cheating. It is a violation of the University's Student Honor Code and an act of academic dishonesty. I am well aware of the sites used for sharing materials, and any materials found online that are associated with you, or any suspected unauthorized sharing of materials, will be reported to Student Conduct and Academic Integrity in the Office of the Dean of Students. These reports can result in sanctions, including failure in the course.

Class Recordings:

Class recordings are reserved only for students in this class for educational purposes and are protected under FERPA. The recordings should not be shared outside the class in any form. Violation of this restriction by a student could lead to Student Misconduct proceedings.

Accommodations: Students will need to provide documentation to the Dean of Student's Office so the most appropriate accommodations can be determined.

Assignments

Assignment Overview

- Class participation (e.g., group activity) and attendance: 15%
- Weekly Individual Reading Responses 20%
- Group Project A: 30%
- Group Project B: 35%



Weekly Individual Reading Responses

Each week students will individually complete a response or activity that synthesizes the readings. These assignments will prepare you for a group activity which is also designed to help you with your Group projects. Individual assignments must be completed by the designated and time.

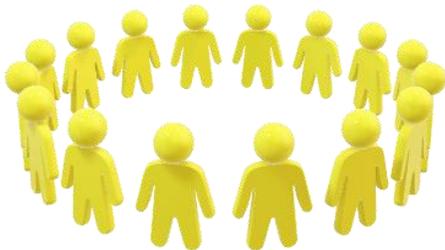
Group Projects (A & B)

You will be assigned to a group to work on two different projects throughout the semester. Each project will focus on designing a media and technology experience for children, adolescents, or teens. Refer to each individual group assignment prompt on Canvas for details.

The individual assignments and group activities are designed to help you generate ideas and content for your project. Each group is expected to report on their progress including meeting with the instructor and/or TA for individualized feedback on the project.

Participation & Attendance

- **Class participation:** All students are expected to participate in discussions/ on the course website.
 - Weekly readings are to be completed before class.
 - Successful participation in class is evidenced during discussion that you have done the readings, including a willingness and ability to summarize, synthesize and evaluate.
 - *Videos:* Analytics will be collected showing if you watched the videos on Canvas
 - *Group Activities:* Submitting responses to class activities (this will often be done with your project group members). These assignments and activities can be organized by group members either during or outside class meeting time.
- **Attendance:** Students are expected to attend all class sessions, to arrive on time and stay for the duration of class.
 - Attendance will be taken during meeting time. Absences will only be excused in situations following University policy (i.e., illness, religious holy days, participation in University activities at the request of
 - university authorities, and compelling absences beyond your control) with proper documentation and timely notification (prior to class for non-emergencies).
 - By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day.
 - If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, I will give you an opportunity to complete the missed work within a reasonable time after the absence.
 - Excessive tardiness may be considered as an unexcused absence except in situations following university policy.
- **Accommodations:** Students will need to provide documentation to the Dean of Student's Office so the most appropriate accommodations can be determined.
- Participation is crucial and the quality of your involvement contributes to your success and the success of the class by creating a collaborative learning environment.



Grading

This class employs a plus/minus grading system. For more information on this system, please consult the University's General Information Catalog. Below is the grade scale the University employs, and which will be used in this class:

Meets major requirement		Does not meet requirement	
Grade	Points/Percentage	Grade	Points
A	≥94.00	C-	70.00-73.99
A-	90.00-93.99	D+	67.00-69.99
B+	87.00-89.99	D	64.00-66.99
B	84.00-86.99	D-	60.00-63.99
B-	80.00-83.99	F	<60.00
C+	77.00-79.99		
C	74.00-76.99		

GRACE POLICY: Time-bank options

Sometimes we have bad days, bad weeks, and bad semesters. In an effort to accommodate any unexpected, unfortunate personal crisis, I have built "time banks" into our course. You do not have to utilize this policy, but if you find yourself struggling with unexpected personal events, I encourage you to e-mail me as soon as possible to notify me that you are using our grace policy. You may use this policy one of two ways (please choose, and let me know):

- You may have a two-day grace period for one assignment, OR
- You may have 2 one-day extensions for two different assignments.

Course Policy

You are responsible for reading and following these class policies, and any additional policies that develop over course of the semester.

Instructor Communication

E-mail is the official mode of communication for the university and the most reliable means of contacting me. **Do not use the messaging facilities in Canvas; these messages do not arrive in my e-mail inbox.** Please allow at least a 24-hour window for email responses and plan accordingly. Please limit emails to 5 sentences or less. If your question about a reading or an assignment takes more than 5 sentences to express, please come see me in office hours. If you cannot make office hours, please email me to arrange an appointment.

Copyright Notice

These materials may be protected by copyright. United States copyright law, 17 USC section 101, et seq., in addition to University policy and procedures, prohibit unauthorized duplication or retransmission of course materials.

Classroom Recording

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use.

Original Work

Cheating and plagiarism not are tolerated. If an assignment turned in for credit is found to have been plagiarized, you will receive a grade of 0 points and a formal reprimand in your student file. You will be subject to the University's disciplinary penalties, including the possibility of failure in the course. *Some assignment require submission of individual work while other assignments are submitted as a group.* It is your responsibility to identify the requirements for each assignment. If you have any questions about the requirements, please contact the instructor.

Late assignments

I do not accept late assignments beyond the grace options. Students who anticipate difficulties with completing assignments on time should consult with the instructor as soon as possible so that alternate solutions can be discussed. When negotiated in advance, arrangements can often be made.

Writing Style manual for assignments

Please use the American Psychological Association's style manual (i.e., APA 7th edition). In particular, please be sure to follow its citation formats and rules on language bias.

Example guide:

https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/general_format.html

Religious holy days

A student who misses classes or other required activities, including examinations, for the observance of a religious holy day should inform the instructor as far in advance of the absence as possible, so that arrangements can be made to complete an assignment within a reasonable time after the absence.

Use of E-mail for Official Correspondence

All students should become familiar with the University's official e-mail student notification policy. It is the student's responsibility to keep the University informed as to changes in his or her e-mail address. Students are expected to check e-mail on a frequent and regular basis in order to stay current with University-related communications, recognizing that certain communications may be time-critical. It is recommended that e-mail be checked daily, but at a minimum, twice per week. The complete text of this policy and instructions for updating your e-mail address are available at <http://www.utexas.edu/its/help/utmail/1564>

Documented Disability Statement

You will need to provide documentation to the Dean of Student's Office so the most appropriate accommodations can be determined. Specialized services are available on campus through Services for Students with Disabilities (SSB 4.104, 471-6259). Any student who requires special accommodations must obtain a letter that documents the disability from the Services for Students with Disabilities area of the Division of Diversity and Community Engagement (471-6259 voice or 471-4641 TTY for users who are deaf or hard of hearing). Present the letter to the professor at the beginning of the semester so that needed accommodations can be discussed. The student should remind the professor of any testing accommodations no later than five business days before an exam. If you plan to make use of specialized services through SSD please inform me before the second class meeting. For more information, visit <http://www.utexas.edu/diversity/ddce/ssd/>

Personal Pronoun Preference

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records.

A safe learning environment and Title IX

Beginning January 1, 2020, Texas Senate Bill 212 requires all employees of Texas universities, including faculty, report any information to the Title IX Office regarding sexual harassment, sexual assault, dating violence and stalking that is disclosed to them. Texas law requires that all employees who witness or receive any information of this type (including, but not limited to, writing assignments, class discussions, or one-on-one conversations) must be reported. If you would like to speak with someone who can provide support or remedies without making an official report to the university, please email advocate@austin.utexas.edu. For more information about reporting options and resources, visit <http://www.titleix.utexas.edu/>, contact the Title IX Office via email at titleix@austin.utexas.edu, or call 512-471-0419. Although graduate teaching and research assistants are not subject to Texas Senate Bill 212, they are still mandatory reporters under Federal Title IX laws and are required to report a wide range of behaviors we refer to as sexual misconduct, including the types of sexual misconduct covered under Texas Senate Bill 212. The Title IX office has developed supportive ways to respond to a survivor and compiled campus resources to support survivors."

Land Acknowledgment

(I) We would like to acknowledge that are class meets on Indigenous land. Moreover, (I) We would like to acknowledge and pay our respects to the Carrizo & Comecrudo, Coahuiltecan, Caddo, Tonkawa, Comanche, Lipan Apache, Alabama-Coushatta, Kickapoo, Tigua Pueblo, and all the American Indian and Indigenous Peoples and communities who have been or have become a part of these lands and territories in Texas, here on Turtle Island.



University Resources for Students

Your success in this class is important to me. We will all need accommodations because we all learn differently. If there are aspects of this course that prevent you from learning or exclude you, please

let me know as soon as possible. Together we'll develop strategies to meet both your needs and the requirements of the course. There are also a range of resources on campus:

Services for Students with Disabilities

This class respects and welcomes students of all backgrounds, identities, and abilities. If there are circumstances that make our learning environment and activities difficult, if you have medical information that you need to share with me, or if you need specific arrangements in case the building needs to be evacuated, please let me know. I am committed to creating an effective learning environment for all students, but I can only do so if you discuss your needs with me as early as possible. I promise to maintain the confidentiality of these discussions. If appropriate, also contact

Services for Students with Disabilities, 512-471-6259 (voice) or 1-866-329- 3986 (video phone).

<http://ddce.utexas.edu/disability/about/>

Counseling and Mental Health Center

Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

All of us benefit from support during times of struggle. You are not alone. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support.

<http://www.cmhc.utexas.edu/individualcounseling.html>

The Sanger Learning Center

Did you know that more than one-third of UT undergraduate students use the Sanger Learning Center each year to improve their academic performance? All students are welcome to take advantage of Sanger Center's classes and workshops, private learning specialist appointments, peer academic coaching, and tutoring for more than 70 courses in 15 different subject areas.

For more information, please visit <http://www.utexas.edu/ugs/slc> or call 512-471-3614 (JES A332).

Undergraduate Writing Center: <http://uwc.utexas.edu/>

Libraries: <http://www.lib.utexas.edu/>

ITS: <http://www.utexas.edu/its/>

Student Emergency Services: <http://deanofstudents.utexas.edu/emergency/>

Basic Needs Security

Any student who faces challenges of affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believe this may affect their performance in the course, is encouraged to contact the Office of the Dean of Students – Student Emergency Services (SES) for support. Please notify the instructor if you are comfortable doing so and I will make efforts to provide any resources that I may possess to help you navigate issues of food insecurity or residential displacement.

SES Concerns and

Emergencies: <http://deanofstudents.utexas.edu/emergency/concernsemergencies.php>

SES Food Pantry:

<http://deanofstudents.utexas.edu/emergency/pantry.php>

SES Confidential Advocacy and

Support: <http://deanofstudents.utexas.edu/emergency/advocacysupport.php>

BeVocal

BeVocal is a university-wide initiative to promote the idea that individual Longhorns have the power to prevent high-risk behavior and harm. At UT Austin all Longhorns have the power to intervene and reduce harm. To learn more about BeVocal and how you can help to build a culture of care on campus go to wellnessnetwork.utexas.edu/BeVocal

Important Safety Information

If you have concerns about the safety or behavior of fellow students, TAs or Professors, call BCAL (the Behavior Concerns Advice Line): 512-232-5050. Your call can be anonymous. If something doesn't feel right – it probably isn't. Trust your instincts and share your concerns.

The following recommendations regarding emergency evacuation from the Office of Campus Safety and Security, 512-471-5767, <http://www.utexas.edu/safety/>

Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.

- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors. Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.

- Link to information regarding emergency evacuation routes and emergency procedures can be found at: www.utexas.edu/emergency

Course at a glance

Week, Date	Topic	Note or Deadline
Week 1	Introduction	
Week 2	Approaches to Learning	Individual Reading Responses due
Week 3	Approaches to Interface Design; Symbolic Understanding	Individual Reading Responses due
Week 4	Designing Games and Applications	Individual Reading Responses due
Week 5	Group Work Session	
Week 6	Group Work Session	
Week 7	Group Project A due	Group Project A due
Week 8	Adolescence & Social Cognition; User Experience & Needfinding	Individual Reading Responses due
Week 9	Spring Break	
Week 10	Introduction to Data Collection	Individual Reading Responses due
Week 11	Introduction to Data Cleaning	Individual Reading Responses due
Week 12	Introduction to Data Analysis	Individual Reading Responses due
Week 13	Group Work Session	
Week 14	Group Work Session	
Week 15	Group Work Session	
Week 16	Conclusions & Group Project B due	Group Project B due

Course Readings/Schedule

Week 1

January 20, 2021

Introductions, review syllabus and course expectations.

Week 2

January 27, 2021

Approaches to Learning

National Scientific Council on the Developing Child. (2007). The timing and quality of early experiences combine to shape brain architecture. Working Paper No.5.

Knudsen, E.I. (2004). Sensitive periods in the development of the brain and behavior. *Journal of Cognitive Neuroscience*, 16(8), 112-1425.

Rogoff, B. (1990). Chapter 6 from *Apprenticeship in thinking: Cognitive Development in Social Context*. New York, NY, US: Oxford University Press. 110-134.

Obradović, J., Portilla, X. A., & Boyce, W. T. (2012). Executive Functioning and Developmental Neuroscience: Current Progress and Implications for Early Childhood Education. In R. C. Pianta, L. Justice, W. S. Barnett & S. Sheridan (Eds.), *Handbook of Early Childhood Education* (pp. 324-351). New York: Guilford

Week 3

February 3, 2021

Approaches to Interface Design

Norman, D. (2013). The psychopathology of everyday things. In *The design of everyday things*: Revised and expanded edition (pp. 1-36). New York, New York: Basic Books.

Gleman, D.L. (2014). Chapter 2: Playing and Learning In *Design for Kids: Digital Products for Playing and Learning*. Brooklyn, New York: Rosenfeld Media.

Symbolic Understanding

DeLoache, J. S. (2004). Becoming symbol-minded. *Trends in Cognitive Science*, 8(2), 66-70.

Hirsh-Pasek, K. & Golinkoff, R.M.(2003) *Einstein never used flashcards: How our children really learn—and why they need to play more and memorize less*. United States of America: Rodale

READ: *Playing the numbers: How children learn about quantity* Sections:
Counting principles: What children can do when.

Gleaman, D.L. (2014). *Design for Kids: Digital Products for Playing and Learning*. Brooklyn, New York: Rosenfeld Media.

READ these sections in Chapter 6 6- 8 year olds:

“High Score”

“We Need Some Stinkin’ Badges”

Week 4

February 10, 2021

Designing Games and Applications for Children

Hirsh-Pasek, K., Zosh, Golinkoff, R.M., Gray, J.H. Robb, M.B, & Kaufman, J. (2015).

Putting education in “education” apps: Lessons from the science of learning.

Psychological Science in the Public Interest, 16(1), **Read pages 7-34.**

Gleaman, D.L. (2014). *Design for Kids: Digital Products for Playing and Learning*. Brooklyn, New York: Rosenfeld Media.

READ: “Stranger Danger” until the end.

Chapter 5 4-6 year olds: “Make Learning Part of the Game”; “Give Feedback and Reinforcement”; “Keep it Challenging”

Chapter 6 Section 6-8-year olds: “Explain, Explain, and Explain Again”

Chapter 7 Sections 8- 10 year olds: “Up the Complexity

Brunick, K.L., Putnam, M.M., McGarry, L.E., Richards, M.N., & Calvert, S.L. (2016).

Children’s future parasocial relationships with media characters: The age of intelligent characters. *Journal of Children and Media*, 10 (2), 181-190.

Richert, R.A., Robb, M.B., & Smith, E.I. (2011). Media as social partners: The social nature of young children’s learning from screen media. *Child Development*, 82(1), 82-95.

Week 5:

February 17, 2021

Group Project A Work Session

Week 6:

February 24, 2021

Group Project A Work Session

Week 7:

March 3, 2021

Group Project A Due

Intro to Project B

Week 8:

March 10, 2021

Adolescence and Social Cognition

Blakemore, S.-J, & Mills, K.L. (2013). Is adolescence a sensitive period for sociocultural processing? *Annual Review of Psychology, 65*, 9.1-9.21.

Read: 9.1-9.6 (stop at "Social brain network")

Read: 9.10-9.16 (Start up again at "Peer rejection")

User Experience & Needfinding

Patnaik, D., & Becker, R. (1999). Needfinding: The why and how of uncovering people's needs. *Design Management Journal, 37-43*.

Library tutorial on literature review

<https://guides.lib.utexas.edu/c.php?q=1060589&p=7710318>

<https://guides.lib.utexas.edu/googlescholar>)

Week 9:

March 17, 2021

Spring Break

Week 10:

March 24, 2021

Introduction to Data Collection

Readings TBD

Week 11:

March 31, 2021

Introduction to Data Cleaning

Readings TBD

Week 12:

April 7, 2021

Introduction to Data Analysis

Readings TBD

Week 13:

April 14, 2021

Group Project B Work session

Week 14:

April 21, 2021

Group Project B Work session

Week 15:

April 28, 2021

Group Project B Work session

Week 16:

May 5, 2021

Conclusions- Group Project B due