



IDEA: Innovation and Design Experience for All

January 26-29, 2021

I. Course Overview

Increasingly, organizations of all kinds have adopted many practices from the field of design to enhance their innovation capabilities. Design thinking refers to an approach to defining, investigating, and solving complex, ill-structured problems. The design thinking process truly sits at the intersection of business and the arts and sciences, as people such as Apple founder Steve Jobs have so eloquently explained. Design thinking does not just represent a concept. It refers to a systematic process for structuring a problem, gathering information, and generating creative solutions.

The “human-centered” design thinking process unfolds in **five phases**: *empathize*, *define*, *ideate*, *prototype*, and *test* (d.School – Stanford University, 2011).



EMPATHIZE



DEFINE



IDEATE



PROTOTYPE



TEST

EMPATHIZE: Design thinkers conduct extensive fieldwork (observations, interviews) to understand the experiences and values of the people for whom they are designing (i.e., the users).

DEFINE: The empathy-based fieldwork yields insights that are used to frame meaningful and targeted “how might we” questions that are at the core of the design challenge.

IDEATE: Design thinkers “go wide” and explore a wide variety of solutions. Brainstorming is the hallmark of the *ideate* phase.

PROTOTYPE: In this step, ideas are transformed into physical models that can be presented to users who can interact with them firsthand.

TEST: Feedback is gathered from users and/or mini experiments are conducted. These experiences fuel the refinement of prototypes and solutions.

The IDEA 2021 remote course consists of an intensive, experiential learning experience in which we will apply the design thinking process to “real world” problems. You will learn about the innovation process in a true learning by doing mode. Specifically, you will learn about two key elements or building blocks for creating new innovations in any field: **design thinking and teamwork**. As part of this intensive experience, you will work in teams on a real-world problem or challenge. These “design challenges” come from a variety of domains including health care, education, hospitality, performing arts, business, and many others. Each team has been assigned to a design challenge based on the ranking of preferences that took place in the fall semester.

You will practice elements of the design thinking process and work in teams to come up with creative solutions to your design challenge. Faculty, staff, student, and alumni mentors will coach and mentor the teams during the process. Throughout this hands-on experience, mentors will lead a series of workshops that will teach you about key elements of the innovation process, so that you can then apply those practices and techniques immediately to your projects.

The design thinking process does not take place inside the mind of an individual. It represents a collaborative process, with a team of individuals working to gather information, generate ideas, and build prototypes. Therefore, you will learn about several important techniques for improving team effectiveness.

II. Learning Objectives

The IDEA course aims to excite you about the topic of innovation generally, and about a specific set of interdisciplinary ideas or topics that you might investigate further during your future years at Bryant. In addition, the IDEA course aims to promote higher levels of faculty-student engagement and to create relationships that will last throughout your time at Bryant (and beyond).

IDEA represents a key component of the Gateway program for all first-year Bryant students. As such, we will be striving to achieve the broad learning objectives that all aspects of the Gateway seek to address. These Gateway objectives are:

Effective Communication:

- You will demonstrate the ability to effectively develop and express ideas both in writing and orally.

Critical Thinking:

- You will exhibit the habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Diversity Awareness:

- You will demonstrate your development of a set of cognitive, affective, and behavioral skills and characteristics that support effective and appropriate interaction in a variety of diverse global, social, cultural, and political contexts.

Ethical Reasoning:

- The ability to assess your own ethical values and the social context of problems, recognize ethical issues in a variety of settings.

Information Literacy:

- The ability to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.

In addition to the overarching Gateway goals, the IDEA course has four fundamental learning objectives that are the focal points for this four-day intensive course. By the end of this experience, you will learn how to:

1. Adopt the design thinking process to work on complex problems and come up with creative solutions.
2. Work effectively as a team to accomplish a challenging task.
3. Engage in constructive debate with other team and cohort members.
4. Communicate your creative ideas in a concise and clear manner.

III. Course Materials & Preparation for the Remote Format

Technological Equipment: All students will need a laptop or computer in good working order, a reliable internet connection, and the ability to participate in Zoom meetings with full audio and video capability each day. Laptop Central will be available for technological assistance during IDEA. You should take the time before the program to identify a quiet place to work and focus during IDEA.

Training Modules: Very brief, self-paced training modules on how to use Jamboard (a collaborative whiteboard for brainstorming) and Storyboard That (a program for digital storyboarding) will be posted on Blackboard a couple of weeks before the program. You will receive an email when they have launched. We expect you to complete these trainings before IDEA so that you know how to use the digital collaboration and innovation tools that will be used throughout the IDEA Program.

Zoom: You will participate in IDEA remotely through joining Zoom webinars and meetings. You will have a specific Zoom link (and password) for your cohort classroom, as well as Zoom webinar links for Opening and Closing Ceremonies, Keynote Speakers, and an IDEA Sponsor Panel Discussion. (See IDEA schedule for details). These important Zoom links will be shared with you in advance of the program via Blackboard.

Blackboard: You are enrolled in two different Blackboard sites for IDEA. One site is the IDEA 2021 Blackboard site. This is a general site in which all 800+ IDEA students are enrolled. This allows for general communication of program information and resources from the IDEA Director (Professor Allison Butler) to all enrolled students. You are also enrolled in another IDEA Blackboard site that is only for your specific cohort (IDEA section). You are enrolled in this site along with the other students and mentors in your cohort. (There are approximately 20 students per

cohort). This site will be used for your mentors to post assignments and information directly to your cohort.

IDEA Folder & Print Materials: Most students picked up an IDEA folder and backpack in the MAC on Nov. 9th. Those who could not pick up these materials in person had them shipped directly to their homes over the winter break. If you do not have the IDEA folder and supplies (either because you have misplaced it or have not received your mailing), you will be able to access the academic print materials electronically on the main IDEA 2021 Blackboard site. You should download and print the materials before the program starts. The following print materials can be found in your IDEA folder:

- **Bryant IDEA Design Thinking Guide:** This is an important resource that aligns with the IDEA curriculum. Plan to always have it nearby during the program. Your mentors may refer to it often.
- **Wallet Challenge Workbook:** This packet will be used on the first day of the program on Tuesday, Jan. 26th. Plan to have it nearby.
- **Construction Paper:** You will need this paper for use during the Wallet Challenge activity that will take place on Day 1. Please also gather your own scissors, tape, markers/crayons and other (optional) craft materials to have on hand during this activity.
- **Thumbnail Sketching Grid:** You will need this for an exercise on the first day of IDEA.
- **Design Thinking Process Chart:** This is a hard copy of the chart that your team will turn in as a digital deliverable at the end of the program.

*Additional materials such as the **IDEA Program Schedule** and **Zoom Links** will be made available electronically via Blackboard.*

IDEA Pencil Case & Craft Supplies: You were given a clear pencil case that include a sharpie, pen, post-it notes, and other items. Please have these items on hand during the program. Please also gather scissors, tape, markers, and scrap paper to have in your workspace (and other optional craft supplies) for use during the Wallet Challenge activity that will take place on Day 1 of IDEA.

IDEA T-Shirt: Plan to wear your IDEA t-shirt on the final day of the IDEA Program during team presentations.

IV. Overview of Course Assignments & Deliverables

Student teams must develop and pitch a **Digital Storyboard & Process Presentation** to a panel of judges at the Final Pitches on Friday, January 29th at 1:00pm. In addition to the digital storyboard illustrating your innovative solution, your presentation must also include evidence of your team's engagement in all five phases of the design thinking process (empathize, define, ideate, prototype, test). You will want to show the depth of the field research conducted, the user insights you crafted based on interviews and observations, the brainstorming that you engaged in, and the way you iterated your solution after receiving feedback or conducting user testing. Your team may develop a PowerPoint, video, role play, Prezi, or any other form of creative presentation that will allow you to convey your solution/storyboard and team process clearly to the judges. You will have 8 minutes for your pitch.

Teams must also turn in a typed **Design Thinking Process Chart** in which you chart your progress through the five phases of design thinking (empathize, define, ideate, prototype, test). You must clearly document your journey by summarizing your field research, the insights you crafted, the HMW questions you brainstormed, and how your storyboard and solution evolved and changed after you pitched your ideas and received feedback. A Design Thinking Process Chart handout is in your IDEA folder, and an electronic version will be available for download on Blackboard. This assignment is due by 4:00pm on Friday, January 29th and will be submitted to your mentors for grading via Blackboard.

Each individual student must complete an **Introduction Post** via Blackboard as directed by their cohort mentors. Cohorts may be assigned discussion boards, video threads, FlipGrid introduction videos, etc. Mentors will provide directions on how to post in the requested format if it's not a standard discussion board. These posts are due by 5:00pm on Sunday, January 24th.

Each individual student will complete an asynchronous module called the **Design Thinking Video Case Response**. You will watch a 13-minute design thinking video case related to GE Healthcare's Adventure Series MRIs for Children. Then you will submit your typed response to three questions pertaining to the case. This should be completed between 12:00 and 2:00pm on Tuesday, January 26th.

Each individual student will complete a **Design Thinking Knowledge Check**, which is a brief electronic assessment of your understanding of design thinking, the steps involved in the process, and the concepts covered in the course. This self-administered assessment will be due no later than 4:00pm on Friday, January 29th.

Lastly, each student must also submit a **Peer Evaluation Form**, in which they assess the contributions of each of their fellow team members. The peer evaluation form may be found on Blackboard and must be completed and submitted no later than 4:00pm on Friday, January 29th.

V. Course Grading

Our approach to grading in the IDEA Program is that each student begins the experience with an A. Consistently working hard, giving your best effort, communicating effectively with your mentors and teammates, producing high quality work, and staying on top of your course responsibilities and deadlines, are all behaviors that should allow you to maintain your A.

The specific breakdown of course requirements for individuals and teams is below:

- Design Thinking Process, Project, & Presentation (team) 40%
- Design Thinking Process Chart (team) 10%
- Attendance & Participation (individual) 25%
- Introduction Post (individual) 5%
- Design Thinking Video Case Response (individual) 10%
- Design Thinking Knowledge Check (individual) 5%
- Team Assessment & Peer Evaluation Form (individual) 5%

40% Design Thinking Process, Project, & Presentation (Team)

Faculty mentors will evaluate each team's process, project, and presentation using the scoring criteria listed below. **This is the same evaluation criteria that the judges will use when selecting the winning project in each cohort.** You may earn up to 20 points in each of three categories for a possible maximum of 60 points.*

***Note:** Faculty members will use the data from the peer evaluations to adjust individual grades up or down as necessary (i.e., someone whose peers evaluated as going above and beyond expectations would receive a higher grade than the overall team grade, while someone who did not fulfill their obligations to their team members will receive a lower grade than the overall team score).

1) Process

- ***Field Observation and Research*** – Does the team demonstrate/discuss the important role of field research (interviews, observations) in the development of their project?
- ***Insights***– Does the team share at least one compelling user insight they have crafted based on their field research?
- ***Brainstorming*** – Does the team demonstrate/discuss the important role of effective brainstorming in the development of their project?
- ***Iteration (evolution/feedback loops)*** – Does the team demonstrate/discuss how the project was developed, refined, and improved over time?

2) Project

- ***Human-Centeredness/ Meeting User Needs*** – Does the concept/solution meet the needs of users? Is it desirable to them?
- ***Originality & Innovativeness*** – Is the concept/solution original, innovative, and creative?
- ***Feasibility & Viability*** – Is the concept/solution something that could be implemented?
- ***Quality of Digital Storyboard*** – Did the team create a high-quality digital storyboard that effectively demonstrates the solution?

3) Presentation

- ***Clarity*** – Is the team's discussion of their process and project clear?
- ***Engagement*** – Do team members seem engaged and excited about presenting their idea?
- ***Confidence*** – Does the team express confidence in their concept/solution and the process through which they arrived at it?

10% Design Thinking Process Chart (Team)

The Design Thinking Process Chart is **due on Blackboard by 4:00pm on Friday, January 29th** and will be scored out of 15 points, with your notes on each phase of the design thinking process worth 3 points each. Descriptive bullet points and formatting to improve readability (e.g., bold, italics, etc.) may be used instead of narrative/paragraphs.

25% Attendance and Participation (Individual)

Attendance Policy:

We expect you to attend all IDEA sessions on time and to be prepared. Please handle your attendance in a professional manner. Absences and/or tardiness, for whatever reasons, will affect your class contribution grade significantly. If you are ill or must miss a session due to unusual, extenuating circumstances, it is your responsibility to notify the instructor and your team members prior to the session. Each team member will evaluate the contributions of his or her peers at the end of the program. Failure to do your share on the project will have a serious adverse effect on your grade. *Please note that failing this course will require re-taking the course next year.*

Participation Policy:

Learning is not a spectator sport. Students do not learn much just by sitting in workshops and team meetings listening to their mentors and peers, memorizing what a presenter may have said, and regurgitating answers. You must talk about what you are learning, relate it to past experiences, and apply it to your projects.

Suggested Ways to Contribute:

- ✓ Come to workshops and team meetings prepared to ask and respond to questions.
- ✓ Participate actively in team activities.
- ✓ Link course concepts and principles to the project work.
- ✓ Ask critical questions or seek clarification on confusing topics.
- ✓ Share personal examples relevant to the workshop material or project.
- ✓ Play the devil's advocate in a constructive manner during a workshop or team meeting.

Your mentors will evaluate your attendance and participation on the following dimensions, each worth up to 5 points, for a possible total of 20 points:

- **Attendance:** Is this student present and on-time for all meetings and webinars? **(5 pts.)**
- **Preparation:** Does the student arrive to sessions prepared with the materials needed for learning and engagement? Were required training modules completed before IDEA? **(5 pts.)**
- **Attitude:** Does this student demonstrate a positive attitude and professional demeanor? **(5 pts.)**
- **Engagement:** Does this student make substantive contributions during sessions? **(5 pts.)**

5% Introduction Post (Individual)

Each individual student must complete an Introduction Post via Blackboard as directed by their cohort mentors. Cohorts may be assigned discussion boards, video threads, FlipGrid introduction videos, etc. These posts are due by **5:00pm on Sunday, January 24th** (before the program starts). You will receive a score of 5 if you complete the post on time. If you submit it late, but by the end of the first day (10:00pm), you will receive 2.5 points. Missing posts or posts submitted after the first day will receive a score of 0.

10% Design Thinking Video Case Response (Individual)

Each individual student will complete an asynchronous module called the Design Thinking Video Case Response. You will watch a 13-minute design thinking video case related to GE Healthcare's Adventure Series MRIs for Children. Then you will submit your typed response to three questions pertaining to the case. This should be completed between 12:00 and 2:00pm on Tuesday, January 26th. You will be assessed on the thoroughness and quality of your responses for a possible high score of 10.

5% Design Thinking "Knowledge Check" (Individual)

Each student must complete a brief assessment of their knowledge of design thinking, the steps of the design thinking process, and the concepts covered in the course. This self-administered assessment will be due no later than **4:00pm on Friday, January 29th**.

5% Team Assessment & Peer Evaluation Form (Individual)

Each student must complete the peer evaluation form included at the end of this syllabus. You must submit your form no later than **4:00pm on Friday, January 29th**. The scores that you provide will factor in to the final grades of all group members. You will receive a score of 5 if you complete the peer evaluation (with comments) by the deadline. Failure to submit a completed form on time will result in a score of 0.

VI. Final Pitches & Judging

Final pitches will take place on Friday, January 29th from 1:00-2:00pm in your cohort Zoom room. Approximately three judges will join your Zoom room, and your team will have a strict 8 minutes to present your pitch where you will share evidence of your team's engagement in all phases of the design thinking process, and you will present your final digital storyboard. The judges will engage your team in Q & A about your solution, storyboard, and process for about 4 minutes. Then judges will deliberate in a breakout room to select one winning team per cohort. The winners from each cohort will be announced live in the IDEA Closing Ceremony at 2:30pm on Friday, January 29th.