WELCOME TO EGE2123 ENTREPRENEURIAL ENGINEERING DESIGN STUDIO

WHAT IS EGE 2123: ENTREPRENEURIAL ENGINEERING DESIGN STUDIO?

- **Required sophomore level course in which students take a design all the way from opportunity identification to prototype building**
- **Follows the freshman level EGE1001: Introduction to Engineering Design Projects**
- **Meets twice a week for 2.5 hours each session and taught in a studio format**

CALLING ALL ENGINEERING SOPHOMORES!!!

EGE 2123

Entrepreneurial Engineering Design Studio

Opportunity Identification, Customer Needs & Feedback, Ideation, Concept Development, Rapid Prototyping & 3D Printing, Robust Design Methodology, Economic Analysis, Project Management, Prototype Construction & Testing

For more information, contact Dr. Cristi Bell-Huff. (cbellhuff@ltu.edu) or Prof. Heidi Morano (hmorano@ltu.edu)

Are you a **team player** interested in developing creative solutions to **real engineering problems**?

Enrich your engineering skillset with an **entrepreneurial mindset**

- **DEMONSTRATE** constant **curiosity** about our changing world.
- **INTEGRATE** information from many sources to gain insight.
- **IDENTIFY** unexpected opportunities to **create extraordinary value**.

Entrepreneurial Minded Learning Within Core Engineering Curriculum at LTU

Freshman Course EGE 1001

- Eng Process
- Teamwork
- Communication
- Self Awareness & Ethics
- Critical Thinking

Sophomore Course EGE 2123

- Eng Tools
- Teams & Comm
- Opp ID & Ideation
- Value Analysis
- Customer Engagement

Junior Year Experience

- Practice Eng Tools
- Project Based EML
- Discipline Specific Content
- Discipline Specific Skills & Techniques

Senior Capstone Experience

- Full Depth & Breadth of Tools & Process
- Real World Projects
- Economic Viability
- Business Case

MINDSET + SKILLSET
EDUCATION IN TANDEM

ENTREPRENEURIAL MINDSET (The 3C's)

CAMPUS WIDE EFFORT AT LTU TO PRODUCE ENGINEERS WITH AN ENTREPRENEURIAL MINDSET

KEEN
ENGINEERING UNLEASHED

WEEK 1
DAY 1

- **TO DO:**
  - **Pre-Course Surveys**
  - **Introductions & Mixer**
  - **The Entrepreneurial Mindset**
  - **Course Structure and The Engineering Design Process**
  - **Syllabus, Studio Handbook & The BEEST**
  - **Simulation Activities**
  - **Design Theme and Info**

- **LOOKING AHEAD:**
  - **Read your EGE2123 Studio Student Handbook**
  - **Complete the test on Blackboard by 8/23 (M/W) or 8/24 (T/Th) .**
  - **Week 0 BEEST posts due 8/24 by 11:59pm.**

UNDER ASSIGNMENTS IN BB

GETTING TO KNOW YOU

1. **Write your first name on a name tag**
2. **Move around the room and find someone with the same number of letters in their first name.**
3. **If you can't find an exact match, get as close as you can to the same number of letters.**
4. **When you find a match(es), introduce yourselves and find out – where are you from? what is your major? what is something you do really well?**

THE LETTERS GAME

WHAT DO COMPANIES WANT IN THEIR NEW ENGINEERS?

"what behaviors and competencies do you want in your new engineers…?"

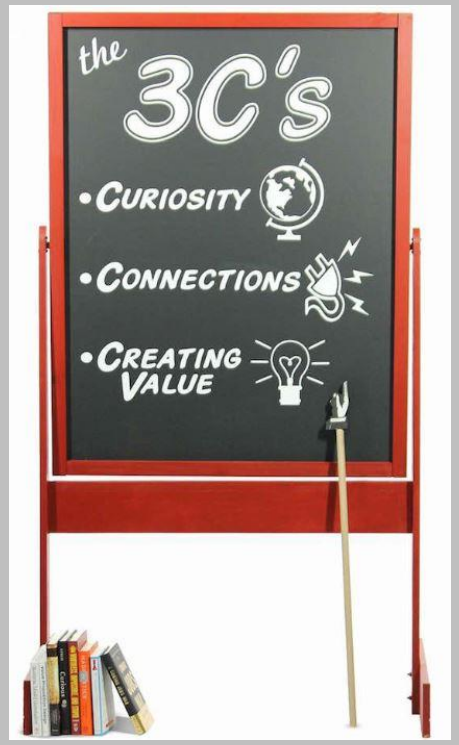
…confident, competent, open-minded engineers who:

- *Work effectively on teams that employ experimentation, analysis, and innovation*
- *Create and promote solutions that are truly responsive to customers around the globe.*

- https://www.youtube.com/watch?v=WZHvRpuemgk&feature=youtu.be
- https://www.youtube.com/watch?v=PFoKmWfkDcU

THE "BIG PICTURE"

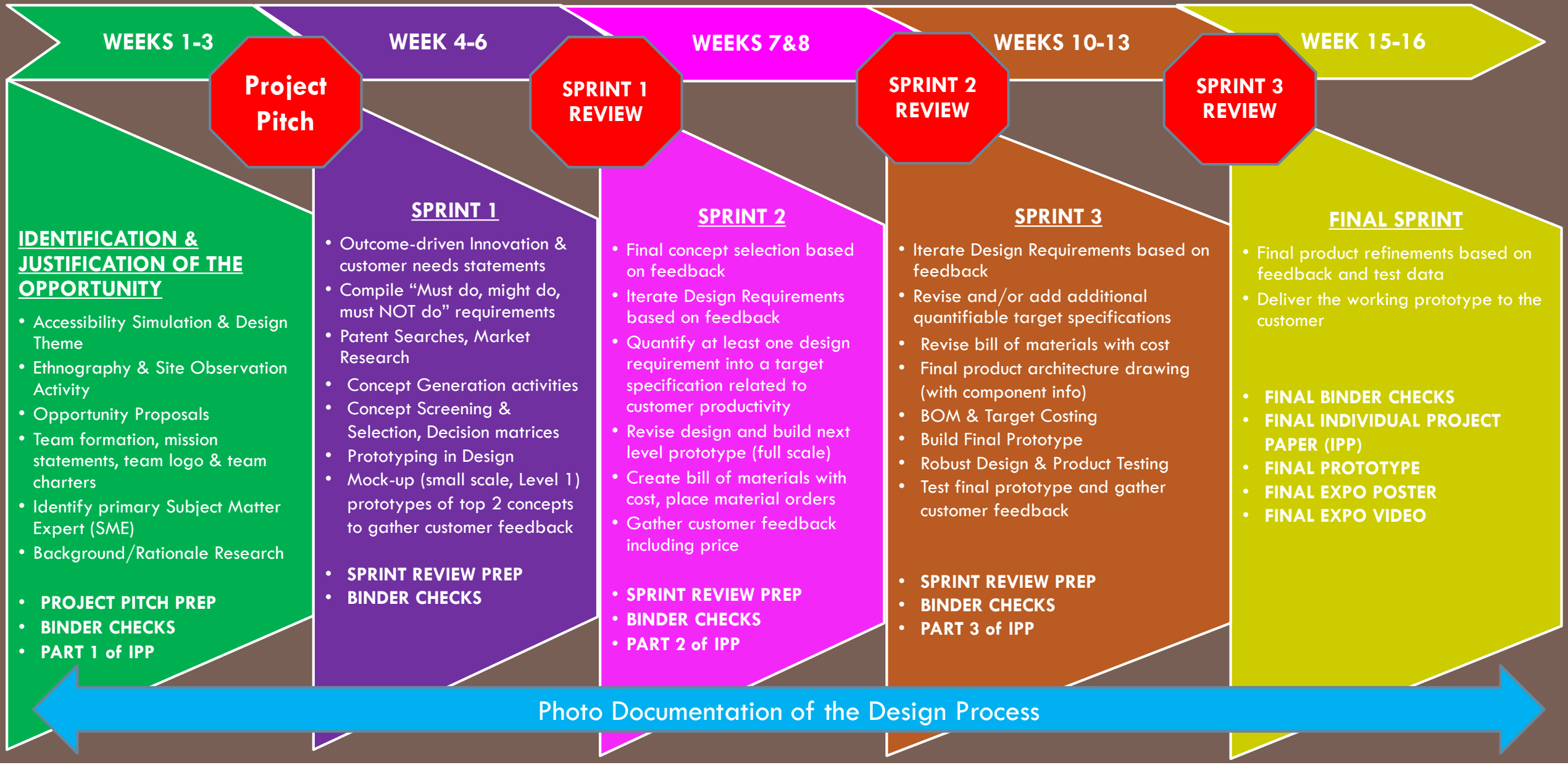
Further develop your Entrepreneurial Mindset to complement your Engineering Skillset



- **WHAT WILL YOU HAVE ACCOMPLISHED AT THE END OF THE SEMESTER?**

- ***CURIOSITY* – Opportunity Identification, Customer Engagement, Concept Generation**
- ***CONNECTIONS* – All of the above & most everything we do; working on multidisciplinary teams**
- ***CREATING VALUE* – User-centered design to design, build & test your prototypes - the customer is always on our minds**

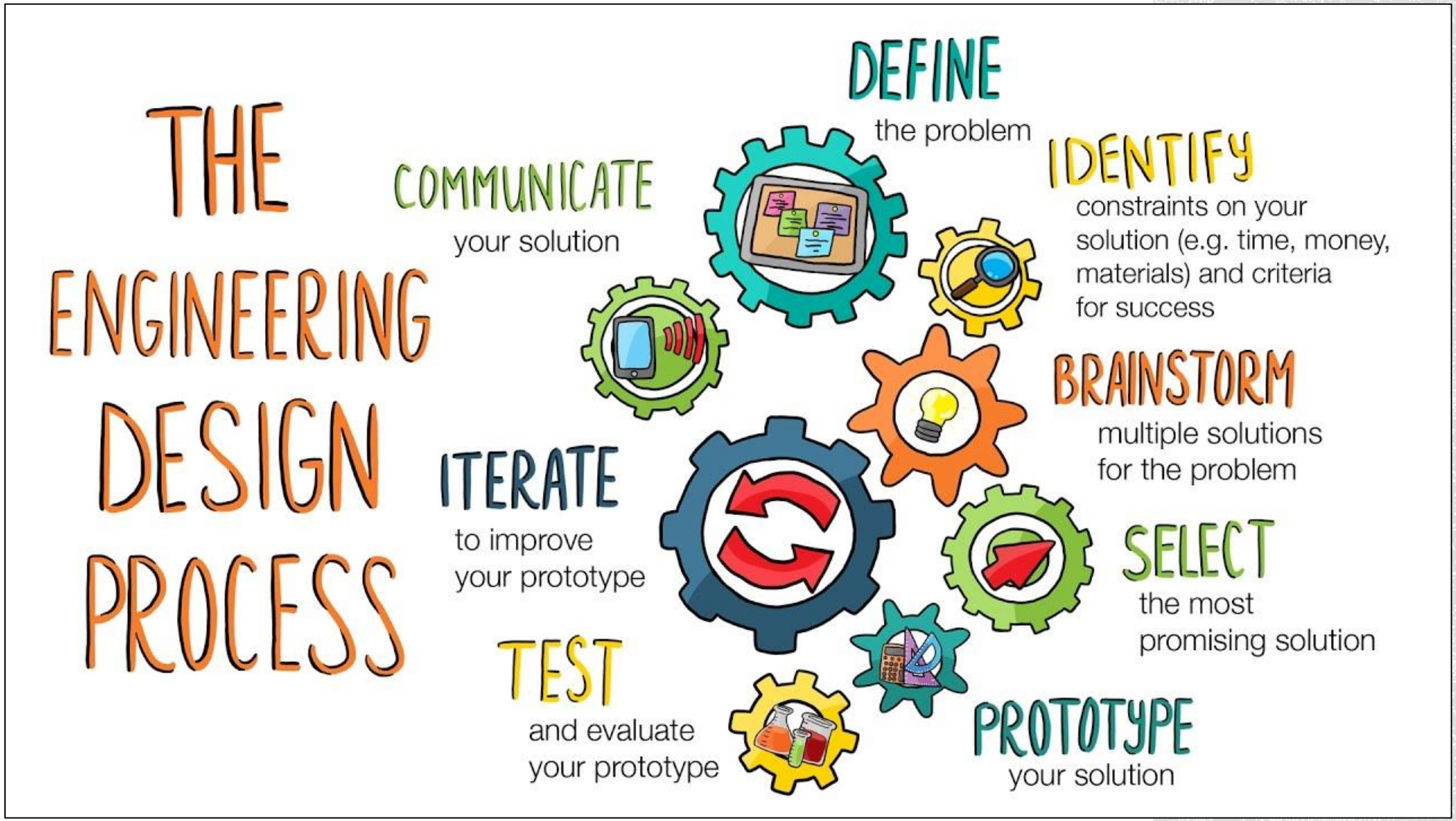
KEEN
ENGINEERING UNLEASHED



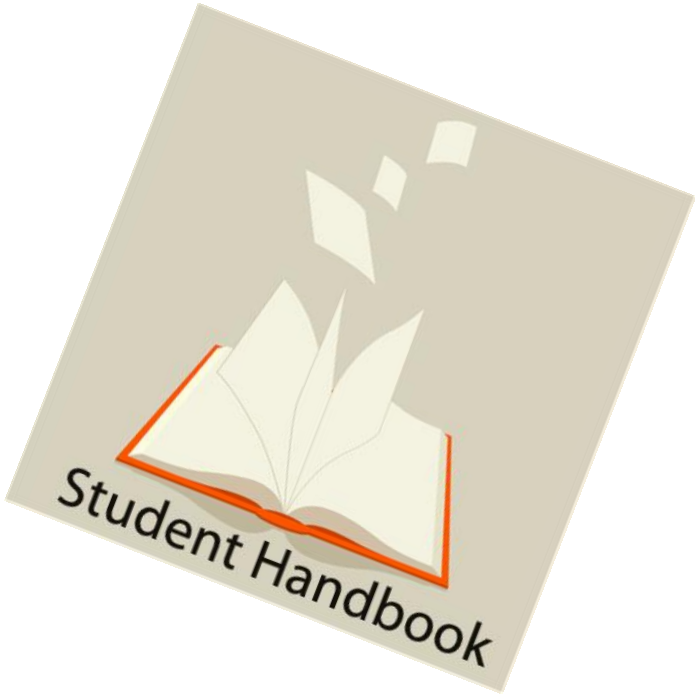
PROJECT TIMELINE

EGE 2123 Entrepreneurial Engineering Design Studio

https://www.youtube.com/watch?v=MAhpfFt_mWM



SYLLABUS, STUDIO HANDBOOK



WEEKLY COURSE BLOG

the B.E.E.S.T.

or Blog for Entrepreneurial Engineering Studio Topics

- Topics will range from course content, teamwork, entrepreneurial mindset, customer feedback on your designs from Sprint Reviews, etc.
- **Each week you will be required to:**

1. Respond to the prompt.
2. Post a comment on at least 2 classmate's posts on the same prompt.

WHAT DO ENGINEERS DO?

ACCESSIBILITY SIMULATION

As you move through your activity think about and be ready to discuss the following with the class:

- **What did you predict would be the most difficult aspects before trying your activity?**
- **How did it feel dealing with the obstacle?**
- **What were actually the most difficult aspects?**
- **What specific issues might someone with this type of disability encounter in the workplace?**

DESIGN THEME:
ACCESSIBILITY IN THE WORKPLACE

SUPPORTING EMPLOYMENT OPPORTUNITIES FOR INDIVIDUALS WITH DISABILITIES

STEP
Services To Enhance Potential

M/W Sections

DESIGN THEME:
ACCESSIBILITY IN SPORTS

Michigan Adaptive Sports

providing sports, recreation and physical fitness opportunities for persons with disabilities.

T/Th Sections

STEP Services To Enhance Potential

Lawrence Technological University

KEEN

SourceAmerica DESIGN CHALLENGE

Background

- Inspiration: Entrepreneurial Engineering Design Studio Course
- Partnership with the nonprofit, Services to Enhance Potential (STEP)
- STEP has 6 resource centers in the metro Detroit area that support the employment goals of individuals with disabilities

Vision & Solution

Our Spray Bottle Assembly Device features a rotating cup that reduces the physical discomfort of assembling spray bottles for employees with disabilities. For employees with dexterity issues, the new device enables them to complete the process with a single hand, resulting in increased productivity, efficiency, and comfort. Since our product is mass producible and cost effective, we plan to research the potential commercial opportunities.

Increase Productivity → Reduce Wrist / Back Pain → Decrease Bending / Reaching → Less than 10 Components → Less than $200

Bill of Materials

Item	Function	Price
MDF Sheet (8' x 4' x 3/4")	Construction Material	$29.15
Small Knobs (Set of 2)	Handle for Box Drawer	$ 1.80
Small DC Motor	Rotates Sprayco Bottle	$12.98
DC Motor Hub	Attaches Parts	$ 4.99
Limit Switch (Pack of 2)	Activates Motor	$ 1.93
3D Printed Cup	Holds Spray Bottle	$10.00
AC-DC Power Supply	Powers Motor	$ 9.99
Misc. Hardware	Screws, Dowel, Wires	$ 6.50
	Total:	$77.34

The Team

(Left to Right)
Jon Behr
Robert; Subject Matter Expert
Steve Slayton; STEP Director
Steven Graczyk
Devson Butani

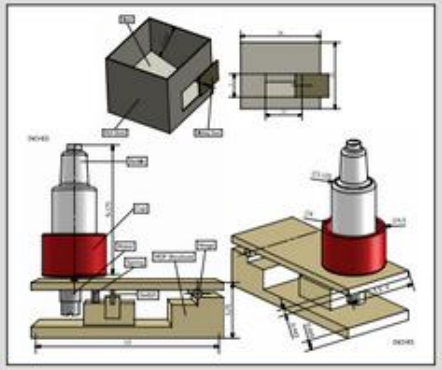
Old Method ⟶ New Method

- 18.2 Seconds per Bottle
- Wrist and Back Pain
- Unnecessary Reaching

39% Less Time

- 11.1 Seconds per Bottle
- **No** Wrist and Back Pain
- **No** Unnecessary Reaching

Computer Design



Impact

- More Bottles = More Money
- Reduced Pain and Strain
- More Workers Can Participate
- Simple, Marketable Design
- Assembly is Now Enjoyable

WEEK 1 DAY 1 (RECAP)

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ALL UNDER ASSIGNMENTS IN BB

WEEK 1 DAY 2

- **TO DO:**
  - **Semester Calendars – Weeks 1-3**
  - **“Lives Worth Living” & Discussion**
  - **Models and Language of Disability**
  - **Site info with guest speaker**
  - **Accessibility Simulation with LEGOS ☺**
  - **Painstorming, Opportunity Identification, and Site Visit Prep**

- **LOOKING AHEAD:**
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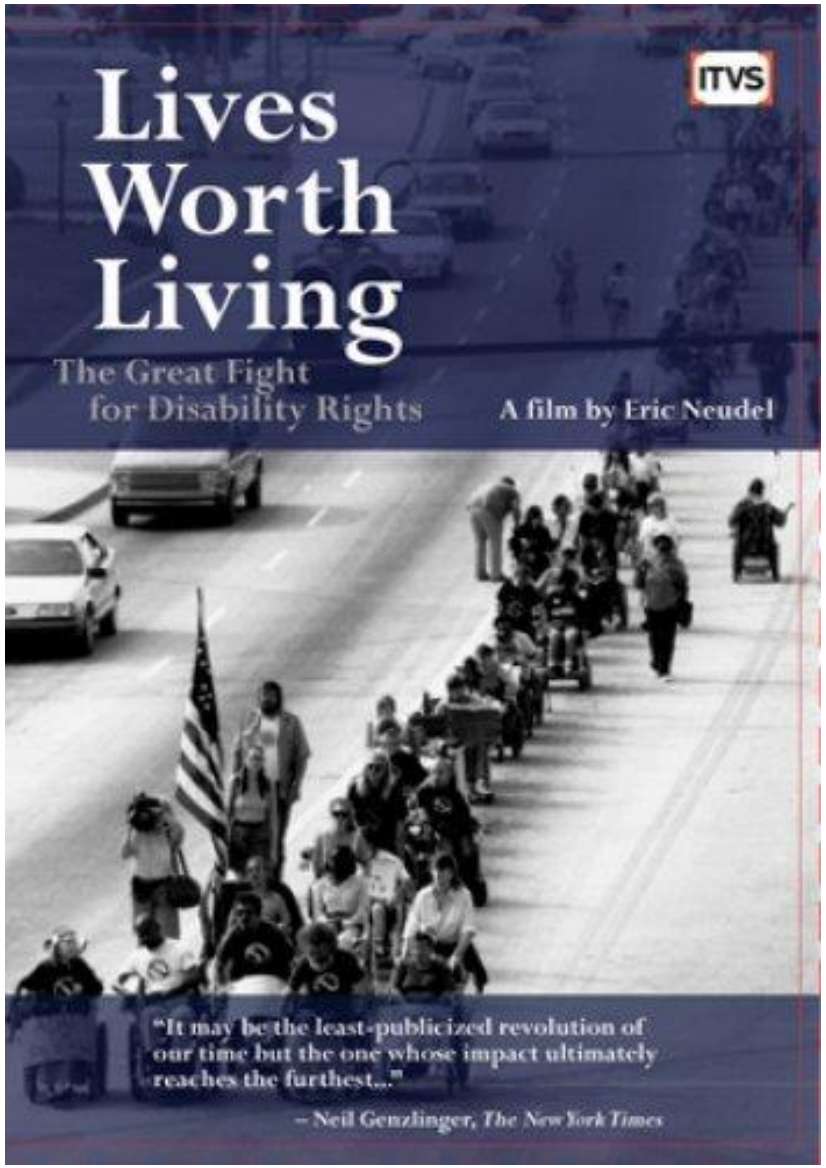


- https://www.youtube.com/watch?v=XioeUIqsSSs

MODELS OF DISABILITY

1. Moral Model

- Disability caused by moral lapse
- Seen as punishment
- Considered shameful

2. Medical Model

- Disability considered an abnormality to be fixed or cured
- Disabled considered sick
- Focus on treatment or rehabilitation

3. Social Model

- Disability considered an interaction between the person and the environment.
- Barriers and facilitation are assessed based on personal goals.
- Focus on removing barriers and personal integration.

Models define the source or problem of disability and the best ways to address related issues.

- from Enderle, J.D. ***National Science Foundation 2012 Engineering Senior Design Projects to Aid Persons with Disabilities (2012).***

"PERSON FIRST LANGUAGE"

- **Recognize the person first before the disability**
- **"A person with a disability" instead of "a disabled person"**
- **Choose the better phrase…**
- **10 Commandments & Disability Awareness (handouts)**

LANGUAGE OF DISABILITY

Putting the person before the disability demonstrates respect and acknowledges the person for who he or she is, not for what he or she does or does not have.

- from Enderle, J.D. *National Science Foundation 2012 Engineering Senior Design Projects to Aid Persons with Disabilities (2012).*

- GUEST SPEAKER

Accessibility Simulation Exercises

Day 1: Daily Life Activities

Today: Manufacturing Activities

ACCESSIBILITY SIMULATION: PART 2
MANUFACTURING ACTIVITIES

Design Theme "Accessibility in the Workplace"

Our simulated workplace: LEGO Airplane Assembly Plant

In today's Accessibility Simulation:

- Experience an assembly line manufacturing process while subject to a simulated impairment
- Consider traditional versus lean-ability manufacturing methodologies
- Focus on productivity and eliminating waste

Traditional Manufacturing Methods: Push System

Round 1 Instructions

1. Each table should have 5 or 6 people (each seat is a ***Station*** and executes a step in the assembly (Station 6 is the inspector).

2. Build airplanes with LEGOs.

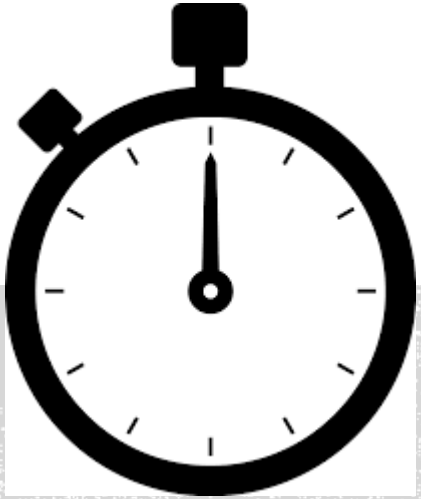
3. The round will last 7 minutes.

4. Follow the instructions for your Station.

5. **Do YOUR OWN JOB**, don't worry about others -----**DON'T STOP.**

6. Let the instructors know when first batch of 5 airplanes are completed.

START PRODUCTION



7 MINUTES

Traditional Manufacturing Methods: Push System

Round 1 De-brief

- **Was it confusing?**
  Could you tell what your pieces were building on the whole?
- **Did you feel isolated in your job?**
- **Did some of you build up an excess of 'work-in-process' (or incomplete assemblies)?**
- **Was it boring?**
  Were you able to stay engaged and on track?
- **What about mistakes?**
  How (and when?) did you receive feedback about *your* work?

Lean Manufacturing Methodology

What is Lean?

A systematic approach to identifying and eliminating waste (non-value-added activities) through continuous improvement by:

- ✓ **Examining the process flow**
  Just-In-Time or Single piece flow
- ✓ **Implementing a 'pull' system with Kanban**
  Kanban is a visual indicator for reordering inventory
- ✓ **Pursuing perfection**
  - Six Sigma (Controlling process inputs in order to reduce variation)
  - Poka-Yoke (Identifying where errors are likely to occur and limiting the possibility)
- ✓ **Reducing inventories**
- ✓ **Involving everyone (task sharing, if necessary)**

Lean Manufacturing Methods

Round 2 Instructions

1. Each table should have 5 or 6 people (each seat is a ***Station*** and executes a step in the assembly (Station 6 is the inspector).

2. Each worker *selects at least one simulated impairment* (visual, dexterity, cognitive).

3. Build airplanes with LEGOs.

4. The round will last 7 minutes.

5. Follow the instructions for your Station.

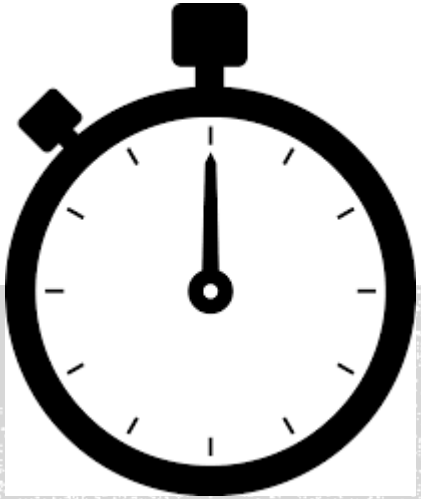
6. **Do YOUR OWN JOB**, if you have extra time **COLLABORATE with your neighbor.**

7. You have a *KANBAN* to put ***one finished part*** in. **DO NOT PUT A PART IN YOUR KANBAN UNTIL THE WORKER DOWNSTREAM EMPTIES IT.**

8. DO NOT MAKE A PART IF YOU CANNOT PUT THE PREVIOUS ONE IN THE KANBAN.

9. Let the instructors know when first batch of 5 airplanes are completed.

START PRODUCTION



7 MINUTES

Lean Manufacturing Methods

Round 2 De-brief

- **Was it easier?**
  Why?
- **Did you feel isolated in your job?**
  Did you feel less of an individual and more of a team?
- **How was waste reduced?**
- **What about mistakes?**
  How (and when?) did you receive feedback about *your* work?
- **Can you think of any improvements that could be made?**

THE ENGINEERING DESIGN PROCESS

YOU ARE HERE

DEFINE
the problem

IDENTIFY
constraints on your solution (e.g. time, money, materials) and criteria for success

BRAINSTORM
multiple solutions for the problem

SELECT
the most promising solution

PROTOTYPE
your solution

TEST
and evaluate your prototype

ITERATE
to improve your prototype

COMMUNICATE
your solution

GOALS

1. **Generate opportunities for design that will create value for our customers within the context of the design theme - Accessibility in the Workplace.**

2. **Identify a personal passion for a design opportunity.**

3. **Form a project team based on passion for a particular design opportunity.**

MINDSET + SKILLSET
EDUCATION IN TANDEM

ENTREPRENEURIAL MINDSET (The 3C's)

OPPORTUNITY IDENTIFICATION (A.K.A. DEFINING THE PROBLEM)

HOW DO YOU DEFINE OPPORTUNITY?

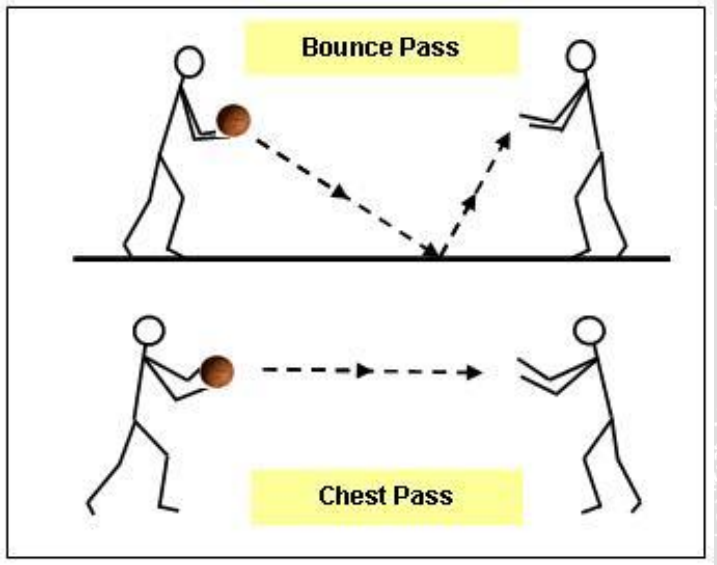
- An amount of time or a situation in which something can be done;
- A favorable juncture of circumstances;
- A good chance for advancement or progress.

- Merriam-Webster Dictionary

FOLLOW THESE INSTRUCTIONS

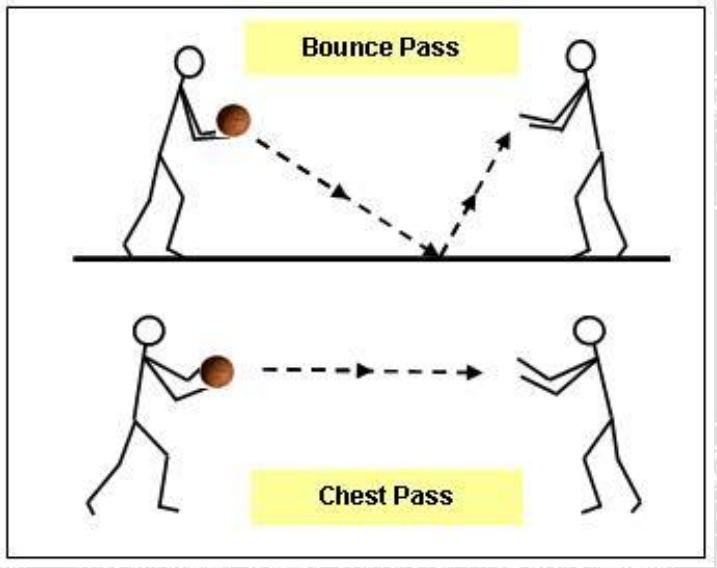
- **If you've seen the following video – do not react, please don't say anything, still follow the instructions.**
- **Count the number of times players wearing white pass the basketball.**
- **Do not count the passes made by the players wearing black.**
- **Even if you've done it before … count the passes.**

BASKETBALL PASSES



BASKETBALL PASSES

- How many passes?
- What else did you observe?



- We are often missing a lot of what goes on around us

- We often have no idea that we are missing so much

Why does this matter?
What are we missing??

THE INVISIBLE GORILLA

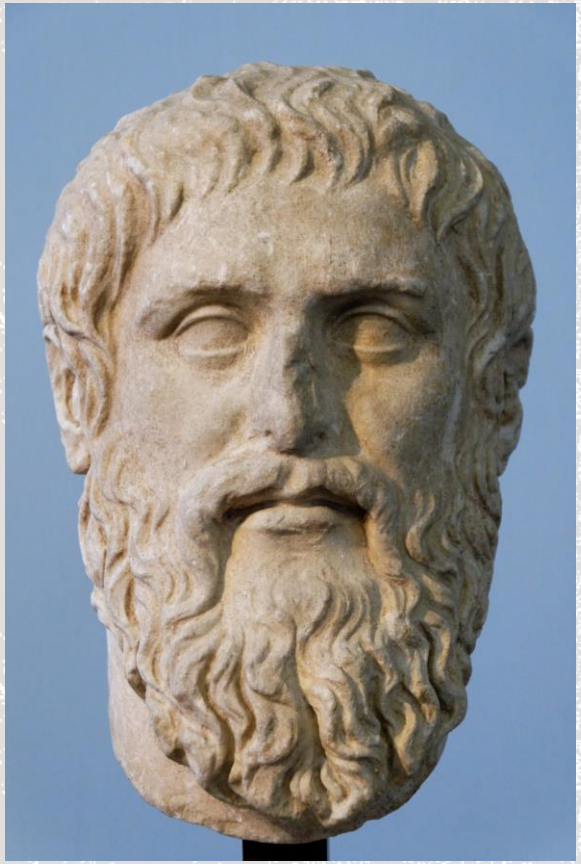
Christopher Chabris and Daniel Simons

http://www.theinvisiblegorilla.com/gorilla_experiment.html

OBSERVATIONS . . .

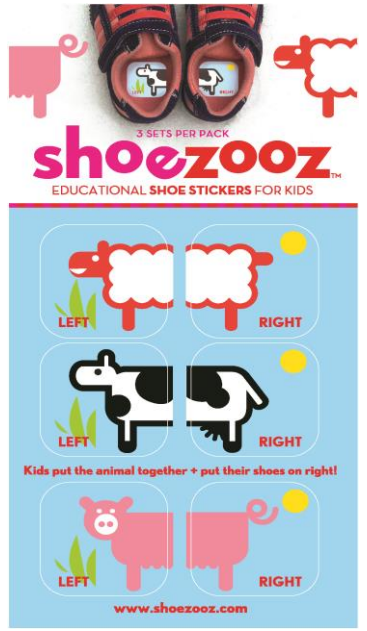
PAINSTORMING

- **“Necessity is the mother of invention” –Plato**
- **To this day, this observation is an important key for unlocking innovation.**
- **Painstorming = identifying your customers’ pains**
- **Customers may view the pain as “inconvenience” or “just part of the job”.**
- **Pains that are identified → Well thought out problem statements → Structured design process →Solutions that address that pain.**



WHAT PAIN IS BEING ADDRESSED?

KneeDefender.com travel@KneeDefender.com
© 2004 Right Brain, Ltd., LLC



Others?

Carrying Water

NAÏVE STATE OF MIND

When visiting a new place, culture, or society, the pains that are taken for granted by the natives, become obvious and easy to recognize.

KEY TAKEAWAYS?

- **Look for the “hidden obvious”.**
- **Observe people in their natural environment to understand their needs and identify their pains.**
- **Gaps or problems that people work around are opportunities for innovation.**
- **YOU HAVE TO GET OUT AND WATCH WITH A NAÏVE STATE OF MIND!!**

SITE VISITS

- Work in groups of 1-3.
- Be flexible, courteous, respectful, and professional.
- Talk with employees and/or job coaches about the activities/jobs done at the site.
- Take pictures of the site and the activities/jobs just as they are normally done (avoid faces for now).
- One person on the team could even try to do the job/activity (ask first!)
- Complete the PAINSTORMING WORKSHEET
- Analyze your PAINSTORMING WORKSHEET and prepare at least 1 OPPORTUNITY PROPOSAL

EACH PERSON MUST TURN THESE IN BEFORE YOU LEAVE THE SITE

- DO NOT propose solutions yet, just define a problem to be solved (a.k.a the pain to be addressed or the opportunity).
- Save your pictures for later use with your project team.

SITE ADDRESSES

Mon/Wed

STEP
Services To Enhance Potential

Dearborn South Resource Center
15200 Mercantile Drive
Dearborn, MI 48120-1223
(313) 827-0764

All customer interaction activities will take place here for these sections

Tues/Thurs

Michigan Adaptive Sports

All customer interaction activities will take place in the studio for these sections unless otherwise indicated

https://www.michiganadaptivesports.com/

WEEK 1 DAY 2 (RECAP)

- **TO DO:**
  - **Semester Calendars – Weeks 1-3**
  - **"Lives Worth Living" & Discussion**
  - **Models and Language of Disability**
  - **Site info with guest speaker**
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  - **Read Empathy on the Edge and complete test on Blackboard by Friday, 8/27 @11:59pm**

INITIAL SITE VISITS ON THESE DAYS

WEEK 2 DAY 1

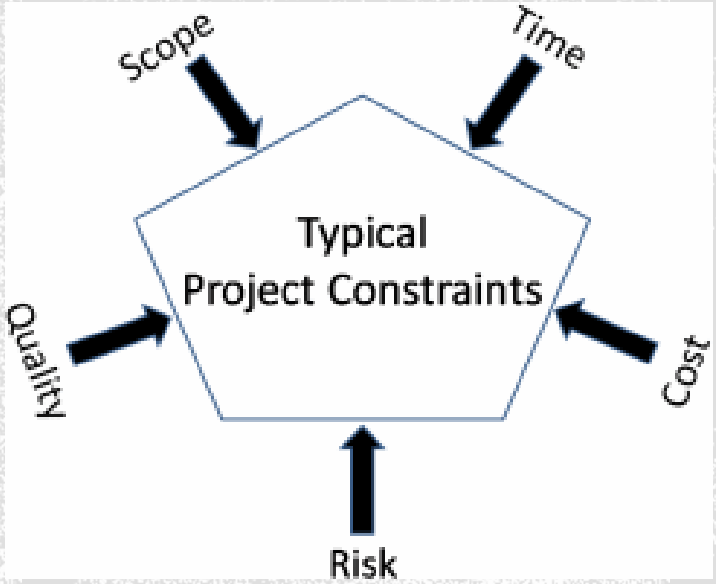
- **TO DO:**
  - **Let's talk - HOW DID IT GO AT THE SITE?**
  - **Project Pitches & Team Formation**
  - **Team Intros & Charters**
  - **Mission Statements & Logos**
  - **Binder Check #1 requirements**
  - **Teams check in with instructors before you leave**

- **LOOKING AHEAD:**
  - **Get team binder set up (see syllabus)**
  - **Finish any team documentation & logo by first binder check**
  - **Week 1 BEEST posts due 8/31 by 11:59pm.**
  - **Week 2 BEEST posts due 9/7 by 11:59pm.**

WEEK 2 DAY 2

INITIAL PROJECT CONSTRAINTS

- **The product should have demonstrable value based on customer needs.**
- **The product should be a material good not a service. You must produce a working prototype.**
- **The product should have a high likelihood of containing fewer than 10 components.**
- **You should be confident of being able to prototype the product for less than $200.**
- **The product should require no basic technological breakthroughs. We do not have time to deal with large technological uncertainties.**
- **The components and materials for construction for your prototype should be readily available from a list of approved vendors or fabricated in one of the labs/shops/makerspaces on campus (see Studio Student Handbook).**



TEAM INFO & CHARTERS

CATME Meeting Support

Team-Member Information for _____

Class/Section:_____

Team Name: _____

Date: _____

Contact information *(e-mail, cell, Facebook, etc.).*	
Preferred contact method and limitations *(ex., no calls after…).*	
Availability for meetings *(days, times).*	
Preferred meeting times and places.	
Preferred work styles relating to teamwork.	
Strengths related to teamwork.	
Strengths related to the team's task.	
Weaknesses related to teamwork.	
Weaknesses related to the team's task.	
Personal Background *(whatever you want to share, such as major, interests, personality characteristics).*	
List anything else that you want your teammates to know.	

CATME Meeting Support

Team Charter for _____

Team Member Names	Contact Information (e-mail, cell, Facebook, etc.)	Preferred Contact Method / Limitations (ex. no calls after…)

Team Member Names	Strengths related to teamwork and the team's assigned task.	Weaknesses related to teamwork and the team's assigned task.

CREATE A MISSION STATEMENT AND LOGO

- **Each team should prepare a mission statement related to their project.**

- **Mission statements should take the form-**

  "The _[team name]_ meets the __[general category or job]___needs of _____[target customers]_____ by _____[value created by your solution]____."

- **Taking into account your team and your mission statement, create a computer generated logo related to your project.**

EXAMPLE


Lawrence Tech
Parking Police
The Parking Police addresses the inappropriate usage of 30 minute parking by students, staff and visitors through monitoring and enforcing the usage of 30 minute parking.

- **TO DO:**
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  - **Finish any team documentation & logo by first binder check**
  - **Week 1 BEEST posts due 8/31 by 11:59pm.**
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WEEK 2 DAY 2 (RECAP)

- **TO DO:**
  - **Intro to the Individual Project Paper (IPP) and requirements for Part 1**
  - **Requirements for Project Pitch Review**
  - **Intro to the Job Map and Site Visit Prep**
  - **Binder Check #1 (during work time)**
  - **Teams must check in with instructors before you leave**

- **LOOKING AHEAD:**
  - **Project Pitch Reviews @ your customer site – next class!!**
  - **Finish site visit prep work before next class**
  - **Week 3 BEEST posts due by 11:59 pm on 9/14**
  - **Part 1 of IPP due by 11:59 pm on 9/17**

WEEK 3

DAY 1 – T/TH
DAY 2 – M/W

Next class BE AT THE CUSTOMER SITE by ½ hour past class start time!!

Course Points Distribution

TEAM GRADES (450 pts)	INDIVIDUAL GRADES (450 pts)
Team Binder Checks: (150 pts)	Student Handbook quiz (20 pts)
Review & Final Expo (300 pts)	Empathy on the Edge quiz (20 pts)
	Individual Project Paper (200 pts)
	Teamwork Grade Based on Peer Assessment (50 pts)
	BEEST - Blog Activities (160 pts)

THE INDIVIDUAL PROJECT PAPER (IPP)

Assignment	Sections	Due Date
Part 1 – first draft (10 pts)	Title, Statement of the Problem, Background, Rationale	9/17
Part 2 – first draft (20 pts)	Development	10/22
Part 3 – first draft (20 pts)	Final Design, Testing Procedure and Results	12/2
FINAL PAPER (150 pts)	All previous sections with revisions and Community Impact, Conclusion, and Abstract added as new sections	12/14

EGE2123: Entrepreneurial Engineering Design Studio

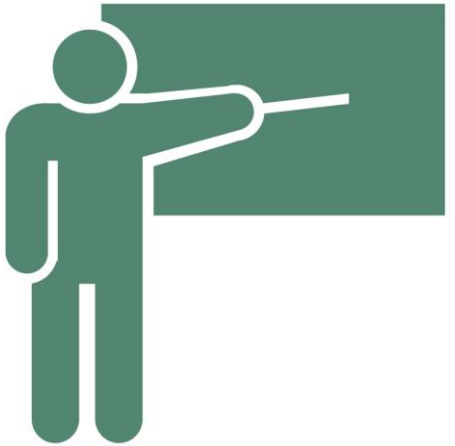
Project Pitch Guidelines

PURPOSE: This first review serves to introduce the project team and the opportunity you have identified for design. You will also present the evidence indicating that this opportunity has the potential to create value for customers.

PRESENTATION GUIDELINES

- You must create a 5-7 minute presentation with another 2-3 minutes for questions from the audience.
- Someone in your group MUST record notes and feedback during the presentation.
- The presentation should contain the work (skillset) you have done leading up to this review but should also demonstrate how this work has fostered an entrepreneurial mindset. Always be mindful of the three C's.
- Use the rubric on the back of this sheet to design your presentation. Some important elements your presentation should contain are as follows:
  - ✓ Your team name, list of team members, mission statement, and computer generated, full scale version of your logo.
  - ✓ The pain you are addressing and how this relates to our theme.
  - ✓ Background related to the customer pain included as justification (include statistics and/or results from background research).
  - ✓ How you identified that pain (i.e. your observation and simulation activities, photos, videos, other activities?).
  - ✓ A description of your customer/subject matter expert (SME) and their requirements including how productivity will be measured before and after your invention

THE PROJECT PITCH REVIEW



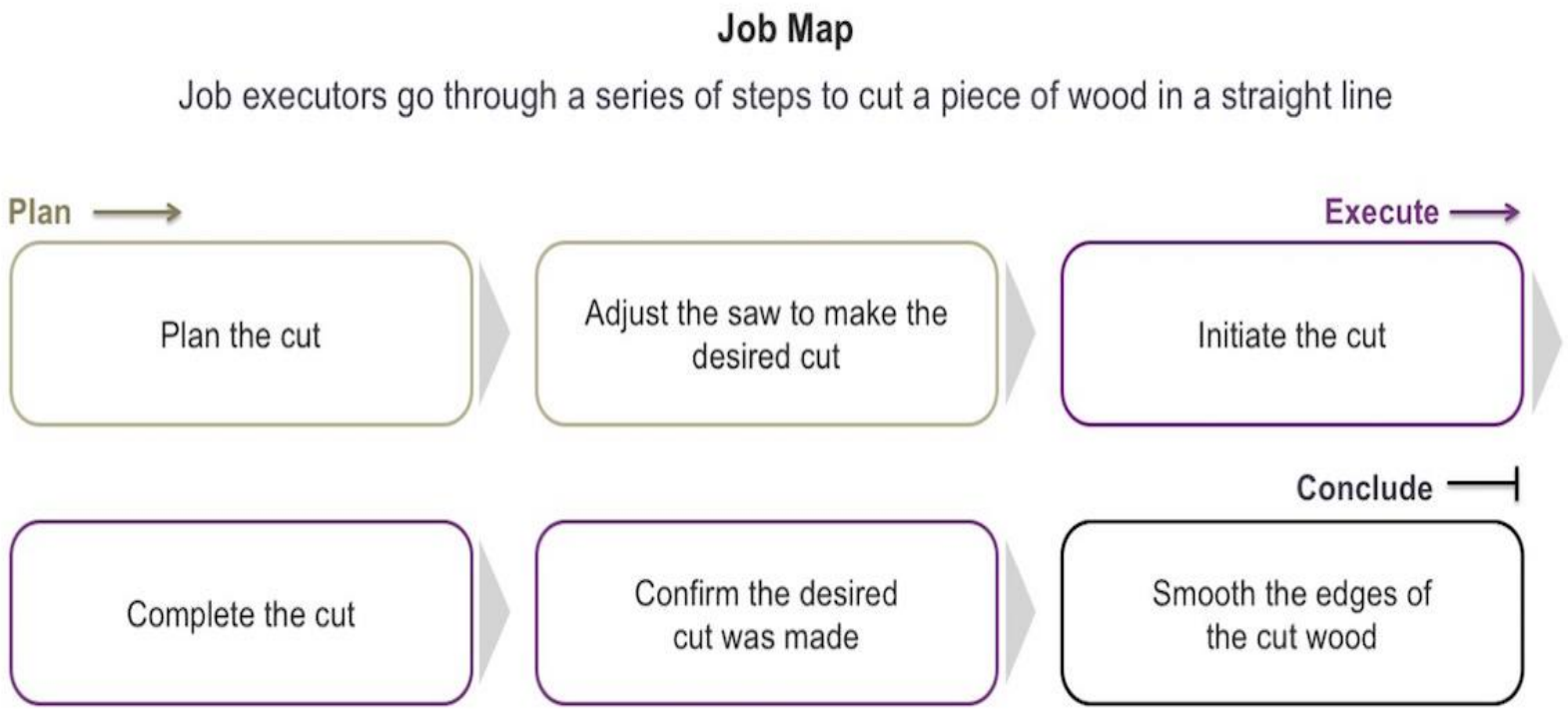
PREPARING FOR SITE VISIT #2: THE JOB MAP

"People don't buy drills, they buy holes"

- Theodore Levitt

- **Virtually all products and services are acquired to help get a job done…<u>focus on the job as the unit of analysis</u>.**
- **Customers have a set of metrics they use to judge whether a job is getting done well.**
- **We must deconstruct the job into process steps and determine how success is measured at each step.**
- **INNOVATION can occur when we figure out which of these metrics is not well-addressed with today's solution.**

To focus on the job the customer is trying to get done → DECONTRUCT THE JOB



- **At the site learn as much as you can about the job your customer needs to get done and deconstruct the job into steps.**

METRICS FOR GETTING A JOB DONE PERFECTLY…

FOCUS ON SPEED, STABILITY, AND OUTPUT

- For each step in your job process, discuss the following -
  1. What makes that step slow?
  2. What makes that step inconsistent or unpredictable?
  3. What makes that step wasteful or costly?

STEP IN THE JOB PROCESS	What makes this slow?	What makes this inconsistent or unpredictable?	What makes this costly or wasteful?
1.			
2.			
3.			

Bring your Site Visit #2 Worksheet with you to the site

WHAT NOW?

- **Work time to prep for Project Pitch**
- **Work time to prep for Site Visit #2**
- **Work on IPP**
- **Binder Checks – bring up your team binder when you are ready**
- **Teams must check in with the instructors before you leave**

WEEK 3 (RECAP)

DAY 1 – T/TH
DAY 2 – M/W

- **TO DO:**
  - Intro to the Individual Project Paper (IPP) and requirements for Part 1
  - Requirements for Project Pitch Review
  - Intro to the Job Map and Site Visit Prep
  - Binder Check #1 (during work time)
  - Teams must check in with instructors before you leave

- **LOOKING AHEAD:**
  - Project Pitch Reviews @ your customer site – next class!!
  - Finish site visit prep work before next class
  - Week 3 BEEST posts due by 11:59 pm on 9/14
  - Part 1 of IPP due by 11:59 pm on 9/17

Next class
BE AT THE CUSTOMER SITE by ½ hour past class start time!!

Project Pitches at the Site and Site Visit #2 Activities

WEEK 3, DAY 2 (T/TH)

WEEK 4, DAY 1 (M/W)