<table>
<thead>
<tr>
<th>Table of Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>13</td>
</tr>
<tr>
<td>14</td>
</tr>
<tr>
<td>15</td>
</tr>
</tbody>
</table>
OVERVIEW

Buckle up, Innoventors – you’re in for a wild ride! Get ready for a crash course in entrepreneurialism. Over the next 24 hours, your skills in brainstorming, presenting, and thinking on your feet will rapidly improve. More specifically, you will better understand the processes involved in market evaluation, product development, and feasibility analysis. This manual is going to be your new best friend, guiding you through the gamut of entrepreneurial skills. Inside you will find a schedule (that you better follow), rules, judging criteria, and micro-lessons to get you started. We have also pre-loaded your USBs with helpful resources. Other than that, you’re on your own. You’re a baby in the ocean. Not really. You will have access to mentors, listed on the Introductions page, to help you when you get stuck. Almost all of them have participated in and won innovation competitions before.

Throughout this competition you will be evaluated based on the three P’s of Innoventing: Product, Presentation, and Professionalism. By Sunday afternoon, you will have pitched your product or service to a panel of qualified and experienced entrepreneurs from the Spokane community and received valuable feedback. However, there is no limit to where your brainchild will go. A great idea could be converted into a senior design project or evolve into a business.

The success of your idea will hinge upon your ability to communicate its superiority. Each member of your team will be required to present, but don’t be intimidated. There will be plenty of opportunities to practice before we throw you to the lions. Things can get a little heated, but we expect you to stay respectful and practice good sportsmanship. We’re always watching. Show off your mastery of the final P by looking sharp on Day 2. We expect to see you all in business formal attire!

Your position in the competition will be revealed periodically, as rankings are released. You will find an explanation of the exact judging criteria in order of importance at the beginning of each challenge – tailor your presentations accordingly. With each new challenge, the stakes (i.e. points) will rise. The rankings can be volatile, so don’t count anyone out. In the end, some will go home with $1000, but you will all go home as Innoventors!
INTRODUCTIONS

FACILITATORS

Ed Dougherty – Director, Engineering Entrepreneurship, Villanova University

Toni Boggan – Academic Director, Center for Engineering Design & Entrepreneurship, Gonzaga University

Vladimir Labay – Chair of Electrical Engineering and Computer Engineering, Gonzaga University

TEAM MENTORS

Paige Bernier – Senior, Engineering Management, Marketing Expert

Lauren Joplin – Senior, Computer Science, Software Expert

Katie Neal – Senior, Mechanical Engineering, Design Expert

Duran Paasch – Senior, Business Administration, Business Expert

Tyler Pattison – Senior, Electrical Engineering, Prototyping Expert

Webster Ross – Senior, Mechanical Engineering, Presentation Expert

SUPPORT TEAM

Theresa Carpine – Wearer of Many Hats, Gonzaga University

Matt Winter – Junior, Mechanical Engineering, Gaffer

Allison Little – Press Team, Lewis & Clark High School
**SCHEDULE**

**SATURDAY**

12:00 – 1:00
*Introductions & Lunch*
McGivern Lounge

1:00 – 3:00
*Excursion*
Out & About

3:00 – 3:45
*Concept Presentation*
Herak 237

3:45 – 4:00
*Elevator Pitch Prep*
Classrooms

4:00 – 4:30
*Elevator Pitch*
Herak and Paccar Elevators

4:30 – 5:30
*Dinner & Rankings*
McGivern Lounge

5:30 – 7:00
*Product Development*
Classrooms

7:00 – 8:00
*Supply Shopping*
Out & About

8:00 – ?:??
*Anything & Everything*
Anywhere & Everywhere

**SUNDAY**

9:00 – 9:30
*Breakfast*
McGivern Lounge

9:30 – 10:30
*Final Trade Show Prep*
Classroom & Herak Atrium

10:30 – 12:00
*Trade Show*
Herak Atrium

10:30 – 12:00
*Final Presentations*
Herak 101

12:00 – 12:30
*Lunch & Awards Ceremony*
McGivern Lounge
CHALLENGES

Excursion

TASK
1 Visit at least three locations 2 Write at least three product or service ideas per location 3 Discuss these ideas with potential customers 4 Write down their feedback 5 Get their signatures associated with the idea and feedback 6 Return to team table by 3:00 PM.

SCORING

Before your Concept Presentation, give your ideas, feedback, and signatures to a Mentor. You will receive completion points for this challenge.

Brainstorming
Forget everything you’ve ever been told – that’s the key to brainstorming. Open your mind up to new possibilities and repurposing the old. With everything you see, ask yourself “Why is it like this?” Act like an alien from Planet Paccar (most people wouldn’t think that’s much of a stretch, anyway). Take notes like you’re reporting back to star command. A wise man once said “Necessity is the mother of invention,” so find that necessity, one that you can relate to. Look for frustrations and opportunities for improvement – they’re everywhere. Next, start developing solutions, keeping in mind that there is more than one way to skin a cat. Remember, ideas are fragile. They need good communication and cooperative input to reach their full potential. As ridiculous as an idea may seem at first, think of the Snuggie®, an absurd tour-de-force.

Market Research
Once you’ve found some opportunities, solidify their value with market research. What is your target market? You might be surprised by the answer. You’re going to need to get out there and ask. Face-to-face interactions are the quickest way to get nuanced and revealing feedback. Consider a day in the life of a potential customer and focus your product on their needs. When considering your customer, explore who they are – not only demographically, but their beliefs, attitudes, and perceptions. How does your product or service address them? Ask them open-ended questions – people love to share their opinions. However, avoid leading and loaded questions, and be sure to give them adequate time to think and respond. By the end of your Excursion, you should have a clear portrait of your target customer base.

5
Concept Presentation

TASK
1. Narrow your ideas down to the top four
2. Develop a 1-minute proposal for each idea
3. Present your ideas in Herak 257 at 3:00 PM. Each member of the team must present one idea.

SCORING

Objective A The team approached solving the problems in an innovative fashion and developed a set of four feasible solutions to the problems they found.

Objective B The team was able to clearly communicate their four ideas.

Objective C The team recognizes the strengths and weaknesses of the individual ideas and presents only those which are feasible.

Product Evaluation

Reaching an agreement on your top tier ideas may be your toughest challenge yet. If you’re lucky, your most promising trio will be apparent. For the rest of you, here are some tips for making a logical (and civil) decision. First of all, develop some probing questions: Is it logical? Is it permanently solved? Is it economical? Is it environmentally friendly? Is it ethically responsible? Is there a market? What are the pros and cons? This may knock out some of the weaker ideas.

Still stuck? Try a comparative matrix. These allow you to list a set of desirable qualities for any product or service (e.g. profit margin, level of competition, market potential, etc.) and assign rankings to be converted into points. In the final column, these points can then be summed to reveal the relative potential of your remaining ideas. In some instances, it may be difficult to perfectly compare your ideas. Desirable qualities may vary between concepts. Be careful not to establish your matrix in favor of one type of product or service over another.

...and a clear and definitive winner emerges!
Finally, justify the demand for your ideas to be presented. Most likely, you are not the only one out there trying to solve your identified problems and you need to show us your position in the market. To do this, create a 2x2 matrix which establishes a plane of relevant qualities. Decide on the two most highly defining qualities of your product and its competition. Label these qualities, positively and negatively, along the x- and y-axes, then plot your product and primary competitors.

![2x2 Matrix Diagram]

- **Fine Fromage**
  - Papa Murphy’s
    - California Pizza Kitchen
  - Domino’s

- **Dirt Cheap**
  - Tombstone’s
  - Red Baron

- **Cheese?**

- **Pricey**
  - Pizza Hut
  - MacKenzie River Pizza
Elevator Pitch

**TASK**

1. Narrow your ideas down to the top two based on the feedback you were given
2. Develop an elevator pitch for each idea
3. Send team members to their elevator positions at 4:00 PM
4. Follow Mentor instructions.

**SCORING**

**Objective A** The speaker clearly explained the problem and solution to the potential investor.

**Objective B** The speaker captured the attention of the potential investor.

**Objective C** The speaker left the investor with a call-to-action.

**Presenting**

According to *highly* a reputable source, about three out of every four people report having a fear of public speaking. Fortunately for you, we’re going to coach you through it. Beyond the content, the qualities of a good presentation are simple.

1. Confidence
2. Clarity
3. Practice
4. Practice
5. Practice

We understand you may not be confident but there are ways you can fake it. You’d never know someone was scared if they maintained great eye contact, didn’t fidget, and simply smiled. If you’re good, you’re good. If not, here are some tips. If eye contact weirds you out, you can look above people’s heads and they won’t be able to tell the difference. If your nervous energy comes out as fidgeting or shaking, shake it off before your speech. Resident expert Webster Ross recommends doing some push-ups or jumping jacks beforehand. If it doesn’t calm you down, it sure will tire you out! Lastly, flash those pearly whites — scared people don’t smile!

Once you’ve got the delivery mastered, work on your content. Clarity is achieved through brevity. Break down your key points and organize them logically. Lastly, be aware that practice makes perfect permanent. Practice your presentation exactly as you want it to come out. Go in the bathroom and use those mirrors. Pull out your phone and time your pitch. Practice using your visual aids and notecards as it will be exactly in your presentation. Finally, relax, give yourself some time to breathe and focus, knowing that you’re going to nail this!

But what is this, exactly? It’s your elevator pitch, maybe your first. So, here are some basic organizational tips. It may sound crazy but you’ve only got about 30 seconds, the length of an elevator ride, to communicate your product and why it’s a winner. Eliminate the extras. All you need is a good hook, an explanation of the problem, a description of your product as the solution, and a snappy call to action. In that order.
Product Development

Design
Businesses rely heavily upon both graphic design and industrial design to set themselves apart from their competition and connect with their target audience. This is your chance to create some visual impact with your marketing and presentation materials, as well as product design. The basics of graphic design can be summarized with a discussion of originality, quality, and effectiveness. The upcoming challenges will require you to quickly communicate all the work you have done so far in an interesting way, so get creative! Don't rest on the design of built-in PowerPoint themes or preconceived notions of what a trade show booth looks like. Try presenting your research in an infographic rather than a bulleted list or lengthy explanations. Effectively use color, contrast, and typography to draw attention to the important aspects of your booth and presentation elements. Making a Prezi is no longer enough to make a unique impression.

Also, always strive to use quality images and photography, whether they are stock images from the internet or something you’ve produced. For most, working with a computer program such as InkScape (which is available to you free of charge, cough cough) will produce the highest quality images. Yet, there are advantages to working directly on paper as well, especially if you are not practiced in creating computer images. Drafting alternative layouts and logos on paper before creating them on the computer will save you time and push you to be more creative. Throughout the creation of your material, remember that the design should not conflict with the content. Make sure everything you present is unique and attractive, clear and concise, and carefully and intentionally designed to accomplish your goals.

Adding a new dimension of design (often literally), let’s talk about product design. The epitome of product design is achieved when form and function mutually influence and benefit one another. Make improvements through your product’s evolution based on this sentiment. To further aid you, consider the ten principles of good design, as noted by Dieter Rams, a pre-eminent industrial designer.

**good design**

- is innovative
- makes a product useful
- is aesthetic
- makes a product understandable
- is unobtrusive
- is honest
- is long-lasting
- is thorough down to the last detail
- is environmentally friendly
- is as little design as possible
Software

Let's make an app! Woah now, it's not that easy. If you choose to make an app, you need to specifically plan how to develop and make money from an app. Making an app requires a very unique skill set. Developers are the biggest expenditure in the cost of making an app, followed by the cost of equipment. The amount of time you need to complete your app will vary with complexity.

For an example (which you should download & give ★★★★★): the Zag Life app, developed in part by Software Expert Lauren Joplin, has taken 8 months for 3 developers working a total of about 20 hours per week. That totals roughly 4 months of one person working full time – that labor alone would cost approximately $25,000. Yikes! You need to develop a money making strategy to recover and profit. Often, apps that must be paid for don’t catch on. Consider having a free or demo app in addition to a paid app or paid elements. If the app is only free, what specific things will make you money? Who will be your advertisers? Who will be your users? Are there enough users to entice or profit from advertisement? If you decide to sell a paid version, will there be enough demand to generate a profit?

If you decide to pursue the development of an app, find a way to give the judges an idea of the final product. Design screenshots, menus, and interactive features, as well as a feasible payment structure.

Prototyping

Once you know what your idea is, you should build a prototype right away. Building a prototype early on in the design process is a good way to help you discover the strengths and weaknesses of your design, and find ways to improve your design that might not have been apparent before.

Building a prototype can be expensive, but your first prototype doesn't have to be. It doesn’t even have to work. A lot can be learned from a non-working prototype. Early prototypes should be constructed using primitive methods, 'at-hand' materials, and tools you're comfortable using to nail down the main functions of your product. You'll likely be modifying the design significantly after you build your first prototype, so save funding for later iterations. A major bonus of building a quick and dirty initial prototype is that you'll be less likely to hold onto a bad design because you've sunk a large amount of cash into it. Doing just that could have a negative impact on your likelihood of commercial success.

Sooner or later, you're going to need to consider manufacturability of your design. This is a good time to begin exploring how your product will be manufactured and what it will cost. For example: engineers working on electrical devices will need to consider getting pricing from an Electronics Manufacturing Service (EMS) and parts suppliers. Prototypes involving mechanical designs may need to consider having molds made for plastic injection and sourcing materials. Having a well-designed prototype will establish a successful foundation for your product.
Marketing

It doesn’t take a genius to come up with a great idea, but it does take some smarts to make it a success. People need to know about your product before they can buy it and there are some basic factors that can influence your strategy. Think of the products that have really set themselves apart through advertising. They are not just relying on traditional channels of communication (e.g. radio, commercial, print).

For example, Lowe’s has launched “Fix in Six,” a series of Vines (6 second mobile-generated video clips) that are intended to “make life at home a little easier.” Lowe’s isn’t directly profiting from this marketing maneuver, but penetrates a new market: future homeowners. By successfully reaching out on a popular social media application (e.g. Vine, Tumblr, Instagram, Pinterest, etc.) in a less traditional way, Lowe’s creates a connection with a wider audience. This isn’t the only way to reach new markets. Investigate companies with innovative promotional strategies such as Serengetee, which infuses a humanitarian mission into their clothing, Gizmocrate, a tech-filled subscription box of upcoming products, or Taco Bell, for their unprecedented social media supremacy.

When developing your marketing strategy, begin by cultivating your company’s brand identity. This is your logo, tagline, tradeshow display, or any materials that a customer will see. These are visual representations of the values, personality, and vision of your company that need to connect with your target market. What are elements of good branding? Phrases that are short, easy to pronounce and remember, and legally available for use. Imagery that is unique, instantly recognizable, and gives the customer an idea of who you are. Next, study your competition so that you can learn from their research. How are they reaching their customers? What are they communicating about their product? This sets you up for your sales approach.

When developing your marketing strategy, performing a SWOT analysis is a helpful first step. SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. These are four dimensions to analyze your product. Evaluate what your product or organization does best, what you could improve upon, where you could expand, and what obstacles you face.
Business Proposal

The culmination of your work until this point, guided by the above sections, should result in a qualitative business proposal. As you can see, the headings of this proposal align with many of the subheadings of this instruction manual. The combination of these elements creates a convincing report outline, the contents of which should be included in your final presentation. Remember, your potential investors have not been following your progress, so your pitch needs to guide them through your decisions and strategies. Here are the basic elements of a business proposal:

- **Executive Summary:** What are you going to tell them?
- **Market Evaluation:** What is the problem? Who is your target audience?
- **Product Description:** What is your product? How does it solve the problem?
- **Product Evaluation:** Who is your competition? Why will someone choose your product?
- **Future Plans:** How will you develop your product? How will you market your product?
- **The Ask:** What are you looking to gain from these potential investors?

We know you’re tired, but this is your chance to prove yourself! Demonstrate everything that you have learned and accomplished. Don’t be afraid to push the envelope on this presentation. It’s not over until the fat lady sings. Dazzle us!
Trade Show

**TASK**

1. Design and construct a trade show booth to be assembled in the Herak Atrium.
2. Design and construct an understandable initial prototype of your product or service.
3. Recognizably decorate your voting box.
4. Invite friends and strangers to attend trade show.
5. Develop a sales pitch to intrigue and persuade attendees to vote in your box.
6. Run the booth from 10:30 AM to 12:00 PM.

**SCORING**

Objective A: The team has a high quality display that grabs the attention of the judge.

Objective B: An effective prototype is used in the process of communicating and developing the idea.

Objective C: Teams demonstrate professional communication skills, interact with attendees, and answer questions.
Final Presentation

TASK

1. Develop an *engaging* 5-minute presentation that covers all aspects of your research and product development.
2. Prepare for 3 minutes of questions following your pitch.
3. Deliver your presentation in Herak 101 at your assigned time between 10:30 AM and 12:00 PM. All team members must speak.
4. Return to trade show.

SCORING

Objective A: The business presented has a convincing viability for commercial success.

Objective B: The business presented is unique and innovative.

Objective C: Presenters demonstrate professional communication skills, answer all questions, and capture the audience’s attention.

Objective D: Teams stay within their allotted time, begin and end the pitch professionally, and finish with a call-to-action.
ACKNOWLEDGEMENTS

Many people came together to make Innovention happen. First and foremost, we would like to thank ED DOUGHERTY for flying out and supplying his expertise. DR. LABAY and TONI BOGGAN for pulling the strings. The Support Team for filling the gaps. Our event reporter, ALLISON LITTLE, for capturing all the action. Our expert JUDGES for sharing their knowledge and experience. And lastly, our fearless participants and newly crowned INNOVENTORS!