**Pecha Kucha Portfolio (15% of final product grade)**

**Objective:** This Pecha Kucha Portfolio aims to highlight your original work and document your thought process throughout the creation of your presentation.

**Instructions:** Complete all sections in English and submit it along with your Pecha Kucha MP4 presentation recording. Incomplete or fabricated responses will impact your evaluation.

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Department of Study: Industrial and management engineering

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| **Topic Selection** | |
| 1. What topic did you choose? | Ergonomics & Workplace Design |
| b. What department of study is the topic a part of?: | Industrial Engineering and Management |
| 1. What motivated you to choose this topic? | I chose this topic because it impacts our daily lives — especially at work. I’ve seen how small changes in our environment, like the chair we use or how high our screen is, can make a big difference to our health and comfort. Since we spend so much time at work, I felt this topic was both practical and meaningful. |
| 1. Include the mind map of your topic that you created in Task 7 of the coursework in this module. | Slide 1: Introduction to Ergonomics & Workplace Design  Hi, my name is Batel Tesema. I’m a fourth-year Industrial Engineering student, and I chose this topic because I’ve noticed how small changes in our work environment can make a big difference. Whether we work at a desk, in a lab, or from home, ergonomics affects us all.  At my workplace, Bright Data, the setup includes ergonomic chairs, large monitors, and adjustable screens. The company invests in comfort and well-being, which really helps reduce physical strain and improve focus.  Slide 2: What Is Ergonomics?  Ergonomics began with early studies during the industrial age, when people started noticing how poor design caused injury. Key milestones include the introduction of adjustable chairs, standing desks, and modern workplace standards. Experts in health and design shaped how we work today.  Slide 3: Why Ergonomics Matters  Good ergonomics supports physical health, reduces injuries like back and neck pain, and helps people stay focused and productive. It also enhances creativity and problem-solving by removing physical distractions and discomfort. Beyond individual benefits, ergonomics lowers healthcare costs and boosts team morale — making it essential for both employees and employers as a strategic business investment.  Slide 4: Challenges in Implementing Ergonomics  Implementing proper ergonomics faces several key obstacles. Physical limitations create difficulties when adapting workspaces for people with different body types and abilities. Technical barriers include the high cost of quality ergonomic equipment and the challenges of retrofitting older office environments. Perhaps most significant are organizational obstacles, where companies may resist change due to perceived costs or disruption, while employees often lack awareness about ergonomic importance until health problems emerge. These multi-layered challenges require comprehensive approaches that address both physical workspaces and organizational culture.  Slide 5: Technologies Supporting Ergonomics  Modern ergonomics uses a range of tools to improve comfort and prevent injuries. Motion capture software can analyze posture, while pressure sensors help assess chair and desk setups. There are also ergonomic assessment apps and AI-driven tools that provide personalized workspace recommendations. These technologies help create safer, more adaptive work environments.  Slide 6: Notable Ergonomic Interventions  One major step in workplace ergonomics was the rise of adjustable standing desks, now common in offices worldwide. Another key moment was the integration of wearable posture trackers and ergonomic apps that help monitor and improve daily habits. These innovations marked a shift toward proactive, tech-supported health in modern work environments.  Slide 7: Role of Organizations in Ergonomics  Leading institutions like OSHA and the National Institute for Occupational Safety and Health (NIOSH) provide guidelines and research to promote workplace ergonomics. Companies often collaborate with ergonomics consultants and researchers to improve safety standards. Grants, training programs, and international knowledge-sharing help spread best practices across industries.  Slide 8: Future of Ergonomics  New technologies like AI-powered posture monitors, smart desks, and wearable sensors are making it easier to customize ergonomic solutions. Research continues to uncover how movement and rest patterns impact health. Looking ahead, sustainable and inclusive designs will become more important to support diverse workforces and reduce environmental impact.  Slide 9: Case Study – Intel’s Ergonomics Program  In the 1990s, Intel faced high rates of ergonomic-related injuries. They responded by creating a formal ergonomics program with dedicated coordinators and developed web-based training plus an online self-assessment tool for employees to evaluate their own workstations. These changes helped reduce injuries by 95% even as the company grew significantly. Intel’s experience shows that structured programs, combined with employee involvement and management support, are key to lasting ergonomic improvements.  Slide 10: Conclusion / Call to Action  To sum up: Ergonomics is a smart and simple way to take care of ourselves at work. Even if you can't buy expensive equipment, small changes matter. I encourage everyone to: 1) Take a 5-minute ergonomic assessment of your current workspace today; 2) Implement at least one improvement this week, even if it's just adjusting your chair height; and 3) Protect your eyes with the 20-20-20 rule (every 20 minutes, look about 20 feet (6 meters) away for 20 seconds to reduce eye strain). Your body, mind, and career will thank you for these investments in ergonomic wellness. |
| **Research and Content Development** | |
| 1. Describe your research process for your topic; Include details of the tools you used, such as , Google, AI tools, and how you used them: | I used ChatGPT to help me organize and express my ideas more clearly and professionally in English. I also used Google to search for a case study — I chose the one about Intel — and to find information about organizations involved in ergonomics, such as OSHA and NIOSH. I double-checked the facts to make sure everything I presented was accurate. |
| b. Include language prompts that you used. : | Some examples of prompts I used in ChatGPT were:   * “Help me explain what ergonomics is in simple English.” * “Summarize Intel’s ergonomics program as a case study.” * “List technologies that support ergonomics in the workplace.” |
| **Slide Design and Visuals** | |
| 1. Describe your Image design process for your topic; Include details of the tools you used to search for or create images: | I used Google Images and Freepik to find relevant pictures for each slide. I searched using keywords like “ergonomic office,” “adjustable desk,” and “posture correction” to find visuals that clearly show the concept behind each part of my presentation. |
| 1. If you used AI to create images, include the prompt that you used and a screenshot of the image outcome.   If you used a database of images, include a link and an image: | I didn’t use AI tools to generate images. I only used images from websites like Freepik and Google. |
| **Presentation Script** | |
| 1. Describe your script and speaking note process. Include details of the tools you used to help you create your English speaking script: | I created a simple script using everyday English so that people from outside my field could easily understand the topic. I used my slide outline as a base and built short explanations that fit the 20 sec time frame per slide. I used ChatGPT to help simplify and polish certain parts. |
| 1. What terms or concepts did you need to explain in clear, simple English for people who do not have specialized knowledge in your field: | The main concept I explained was “ergonomics” itself — what it means and why it’s important. I also simplified technical ideas like “wearable sensors,” focusing on how they benefit workers rather than going into the engineering details. |
| **Rehearsal Process** | |
| Describe your rehearsal and practice process before recording: | I started by reviewing the outline I wrote for the slides, then selected images that supported each key point. After that, I practiced a few times with a timer to make sure each part fit the time limit. I didn’t try to memorize every word, but I rehearsed until I could speak naturally and confidently without needing to read directly from a script. I practiced a few full runs before recording. |
| Include details of the tools you used to help you practice English pronunciation: | I didn’t use any pronunciation tool. I was already familiar with all the terms I used. |
| **Recording Process** | |
| What tool/software did you use to record your presentation? | I used zoom |
| 1. Did you read the script or memorize it? | I memorized most of the content. For the case study and organization slides, I referred to my notes to make sure I got the facts right. |
| 1. If you read the script what tools did you use to read? | I wrote short notes on a notepad |
| 1. What did you do to sound natural? What did you do to avoid sounding robotic or like you were reading? | I practiced several times until I felt confident speaking in a relaxed tone. I also added personal examples, like my experience at Bright Data, to make the presentation feel more personal and authentic. This helped me connect to the topic and made it easier to speak naturally. |