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AI Future League - Assessing AI Skills & Curriculum Needs

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Technical College
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Tentative Agenda – AIFL – Faculty Development

Time	Event
9:30 – 10a	Check in – Team assignments
10 – 11a	Quick Recall and Research
11 – 12p	Lunch and discussion
12 – 1p	Who wrote that? Help me start that.
1 – 2p	Lightening round and awards

Competition Prompt: AstroAid Challenge

Scenario:

The year is 2065, and humanity's first colony on Mars is thriving. To celebrate the unity and spirit of the colonists, the Mars Colony Council has decided to deploy a robot assistant for each of the Martian settlers.

Task:

Your team's mission is to use AI tools (e.g., invideo ai, vadoo, flexclip, etc.) to:

1. Create a list of tasks you require that your robot be able to do.
2. Engineer a single prompt that will be used to generate a video showing your robot completing the tasks.
3. Using an AI video creation tool to create a video. There is a list of tools and a short description in this packet.

Rules:

1. This is a single prompt challenge. You can only use one AI tool and you may only enter one prompt.
2. You will have 15 minutes to create your list and engineer your prompt into your AI tool.
3. This will allow up to 10 minutes for your video to process and you to download the video to submit.
4. The final submission should include:
 - The list of tasks your robot will be able to complete.
 - Your prompt.
 - The video.

Judging Criteria:

Your submission will be judged based on:

1. **Creativity:** What tasks your robot will be capable of completing. (25 pts)
2. **Technical Execution:** Did your prompt cover all tasks you want your robot to do? (25 pts)
3. **Originality:** How unique and innovative your approach is. (25pts)
4. **Fun:** Don't forget to name your robot.

Tips for Students

1. You only get one robot, so make sure you are using the robot in the best possible way to make your life on Mars sustainable.
2. Think outside the box. What will make your robot the envy of all other inhabitants?
3. When you think about the task list, you can use the research below. There are responses from three AI sources based on the prompt: Describe the environment on Mars

I. ChatGPT:

Mars, often called the Red Planet, has a fascinating and harsh environment. Here are some key features:

1. Atmosphere: Mars has a thin atmosphere composed mostly of carbon dioxide (about 95%), with traces of nitrogen and argon. This thin atmosphere means there's very little protection from the Sun's radiation and no breathable air for humans.
2. Temperature: The temperatures on Mars are extreme, ranging from about -125°C (-195°F) during winter at the poles to 20°C (68°F) in summer at the equator. However, the average temperature is around -60°C (-80°F).
3. Surface: The surface of Mars is rocky and dusty, covered with iron oxide (rust), which gives it its reddish color. The landscape features the largest volcano in the solar system, Olympus Mons, and a massive canyon, Valles Marineris.
4. Gravity: Mars has about 38% of Earth's gravity. This lower gravity would affect how humans move and live on the planet.
5. Water: While liquid water can't exist on the surface due to the low atmospheric pressure, there is evidence of water ice at the poles and possibly salty liquid water in underground reservoirs.
6. Weather: Mars experiences dust storms that can cover the entire planet. These storms can last for weeks and significantly impact the surface conditions.

Despite these challenges, Mars remains a prime candidate for future exploration and possibly even colonization.

II. Perplexity:

Mars, often called the "Red Planet," has an environment that is vastly different from Earth's. Below is an overview of its key environmental features:

1. Atmosphere
 - Composition: Mars' atmosphere is 95-96% carbon dioxide, 2-3% nitrogen, and about 1.6-2% argon, with trace amounts of oxygen, water vapor, methane, and other gases. It also contains significant dust particles that give the sky a tawny or pink hue.

- **Pressure:** The surface pressure averages around 610 pascals (0.088 psi), which is less than 1% of Earth's sea-level pressure. This thin atmosphere makes it impossible for liquid water to remain stable on the surface.
- **Temperature:** Mars is cold, with average surface temperatures around -60°C (-76°F). Temperatures can range from a high of about 14°F (-10°C) in summer to lows below -190°F (-123°C) in winter.
- **Methane Variability:** Methane levels fluctuate seasonally, suggesting active sources like geological processes or potentially biological activity.

Climate and Weather

- **Seasons:** Mars experiences seasons due to its axial tilt, but they are more extreme because of its elongated orbit. Southern winters are harsher than northern ones due to temperature differences.
- **Dust Storms:** Massive dust storms are common and can engulf the entire planet. These storms are driven by solar heating and can last for weeks, with wind speeds reaching up to 75 mph (120 km/h).
- **Auroras:** Unlike Earth, auroras on Mars can occur across the planet due to the lack of a global magnetic field. They are caused by solar storms interacting with localized magnetic fields in the crust.

Surface and Soil

- The Martian surface is covered in iron-rich dust and rocks, giving it its signature red color. The soil contains silicon oxide and hydrated iron oxide (rust).
- The terrain includes vast plains, deep valleys, and towering volcanoes like Olympus Mons. Surface conditions vary greatly depending on elevation; for example, pressure is higher in the lowlands like Hellas Basin compared to the peaks of Olympus Mons.

Unique Features

- **Thin Atmosphere:** Mars' atmosphere is over 100 times thinner than Earth's, limiting its greenhouse effect. Consequently, the planet's temperature variations are extreme.
- **Water Ice:** While liquid water cannot exist on the surface due to low pressure, polar ice caps contain frozen water and carbon dioxide that seasonally sublime into the atmosphere.

In summary, Mars is a cold, dry planet with a thin atmosphere dominated by carbon dioxide. Its environment is marked by extreme temperature fluctuations, seasonal dust storms, and dynamic atmospheric phenomena like auroras.

III. **Copilot:**

The environment on Mars is harsh, dry, and cold—very different from Earth. Here's a breakdown of what it's like:

Temperature

- Cold: Average temperature is around -80°F (-60°C).
- Can swing wildly: from 70°F (20°C) near the equator during the day to -195°F (-125°C) at night near the poles.

Atmosphere

- Thin and unbreathable: Mostly carbon dioxide (CO₂) (about 95%), with only trace amounts of oxygen.
- Atmospheric pressure is less than 1% of Earth's, making it nearly a vacuum.
- Can't support liquid water on the surface for long—it evaporates or freezes quickly.

Water

- No liquid water on the surface under normal conditions.
- Water exists as ice at the poles and possibly in underground reservoirs.
- Some evidence suggests salty brines might temporarily exist near the surface.

Weather and Wind

- Dust storms are common and can cover the entire planet.
- Winds can reach 60 mph (100 km/h), but the thin atmosphere means they're not very forceful.
- The sky appears red or butterscotch due to the fine dust in the air.

Surface

- Desert-like, rocky, covered with iron oxide dust—gives it the nickname “The Red Planet.”
- Full of craters, ancient riverbeds, volcanoes (like Olympus Mons, the tallest in the solar system), and massive canyons (like Valles Marineris).

Radiation

- No magnetic field or thick atmosphere = high levels of cosmic and solar radiation.
- Would be dangerous for humans without protective habitats.

Day Length and Gravity

- A day on Mars (a “sol”) is about 24.6 hours—pretty close to Earth.
- Gravity is about 38% of Earth's, so you'd weigh a lot less.

Free AI Video Creation Tools

1. Runway ML

- Runway ML offers a free tier for experimenting with AI video generation. It allows users to create short clips from text prompts, though there are limitations on video length and features.

2. FlexClip

- FlexClip provides a free text-to-video generator that creates videos from text prompts or images. It includes features like dynamic text animations, subtitles, and transitions.

3. Invideo AI

- Invideo AI is a powerful and user-friendly tool for creating videos from text prompts. It generates a complete video with a script, voiceover, media, and subtitles in under five minutes.

4. Hailuo AI

- Hailuo AI specializes in generating high-quality short video clips (up to 6 seconds) from text prompts. It offers a 3-day free unlimited generation period, making it a good option for testing creative ideas.

5. Alibaba Qwen

- Alibaba Qwen is completely free and produces high-quality videos from text prompts. However, its generation process can be slow or unreliable at times.

6. Kapwing

- Kapwing includes an AI video generator in its free plan, which is suitable for creating basic videos based on text prompts. The free tier has restrictions on file size and output length.

7. Vadoo AI

- Vadoo AI allows users to generate videos directly from text descriptions, adding themes, styles, and captions. It is designed for quick and streamlined video creation.

Tips for Using Free Tools

- Keep videos short to maximize free-tier limits.
- Plan your scripts or prompts in advance to save time during creation.

Challenge #4 - In room monitor notes:

- **This is a one prompt challenge. Students will get a packet that contains research about the planet Mars and a list of AI video creation tools.**
- **No computers should be used for the first 15 minutes. During that time, the teams can use the whiteboards to brainstorm and then one of the communication specialists will enter the prompt that was decided upon.**
- **Students should copy their prompt as it will be part of the submission.**



Welcome

We have used AI to randomly assign teams

- After teams are generated, pick a team name we will use it later.



Challenge 1:

We polled 5 AI tools,
name the top 10 commonly used AI.

Rank	AI Tool	Use Case / Why It's Popular
1	ChatGPT	Writing help, explanations, brainstorming
2	Copilot (Bing Chat)	Research, creative tasks, integrated search
3	Perplexity AI	Cited answers, research assistant
4	Quillbot	Paraphrasing, grammar, plagiarism check
5	Canva (with AI features)	Visual content creation, presentations
6	Grammarly	Writing assistant, grammar and tone check
7	Otter.ai	Transcription and note-taking from lectures
8	Consensus	AI-powered academic research engine
9	Elicit	Literature review and paper summarization
10	Khan Academy AI Tutor (other AI tutor will be accepted)	Personalized learning and tutoring

Tool	Use Case / Why Popular	Free Version
ChatGPT	Writing help, explanations, brainstorming	GPT3.5, limits on GPT4, usage caps
Copilot (Bing Chat)	Research, creative tasks, integrated search	GPT4, usage caps, integrated with Edge
Perplexity AI	Cited answers, research assistant	GPT3.5, limited GPT4, standard search limits
Quillbot	Paraphrasing, grammar, plagiarism check	125-word limit, basic paraphrase modes
Canva (AI features)	Visual content creation, presentations	Basic templates, few AI tools, 5GB storage
Grammarly	Writing assistant, grammar & tone check	Core grammar & spelling suggestions
Otter.ai	Transcription, note-taking (lectures/meetings)	300 min/month, 30-min/conversation
Consensus	AI-powered academic research engine	Free paper search, limited queries
Elicit	Literature review & paper summarization	Unlimited search, small batch summaries, low limits
Khan Academy AI Tutor (Khanmigo)	Personalized learning and tutoring	Free for educators

Additional Tool	Use Case	Free for Educators?
Notebook LM (Google)	Summarizing, organizing academic resources	Yes (limited, pilot)
Brisk	AI feedback on student essays, lesson editing	Pilot/varies
Diffit	Differentiated lesson creation, resources	Yes (basic)
MagicSchool	AI quiz/assignment generator, teacher tools	Yes (basic)
Kangaroos.ai	Rubric-based AI grading assistant	No
Chalkie.ai	Automates worksheet/presentation creation	No

Example of AI use in a project....



Challenge #2

Points will be awarded based on speed, accuracy, and completeness of your answer.

Only press your button once your answer is fully ready to submit.

Scoring will consider:

- How complete your answer is
- The order in which you ring in

Students can sometimes don't understand or misuse AI...

- 1.give an example of an assignment,
- 2.how AI was misused, and
- 3.how you would modify the assignment to encourage students to complete the task without AI or to complete it using AI as an aid not a crutch.

Challenge 3: Now for a little fun with prompt engineering....

Who can tell me what country has the median world population, what that population is, and what animal that country is known for?

Also, show a photo of the bird.

What country has the median world population, what that population is, and what animal that country is known for?

COUNTRY:
Sudan

POPULATION:
51,662,147

ANIMAL:
Secretary Bird



Before lunch.... Challenge 4:

- Write your team name on your board, please....
- Did you know you can generate music using AI tools such as Uberduck, Voicemod, Resemble AI, Audacity, etc.
- Create a theme song for your team.
- We will share during lunch as they complete rendering.

Challenge 5: There are two passages that will be put on the screen. Which is the real passage?

- Point out one line where AI might identify it as AI written and what about it would lead you to believe that.
- Bonus point for actual author noted.

1. “No one can tell what goes on in between the person you were and the person you become. No one can chart that blue and lonely section of hell. There are no maps of the change. You just come out the other side. Or you don't.”

2. "No algorithm can trace the space between who you were and who you become. That stretch of silence, of shifting shadows and unspoken recalibrations, is invisible to logic. There are no coordinates for transformation. You either emerge, reshaped and whole—or you vanish in the process."

What stands out?

- **Over-Polished Language:**

- Phrases like “*stretch of silence*,” “*shifting shadows*,” and “*unspoken recalibrations*” are poetic but feel slightly too curated—like a thesaurus was consulted at every turn. AI often leans into lyrical phrasing to sound profound.

- **Abstract Overload:**

- The original King quote is grounded in emotional realism—“*blue and lonely section of hell*” evokes a visceral, human experience. The AI version, by contrast, uses abstract metaphors (“*coordinates for transformation*”) that sound deep but lack the raw emotional punch.

- **Lack of Personal Grit:**

- King’s version has a gritty, almost painful honesty. The AI version is more philosophical and detached, which can feel emotionally distant—common in AI-generated prose.

- **Subtle Tech References:**

- The phrase “*No algorithm can trace...*” is a subtle nod to AI or computational thinking, which is a giveaway. AI often unintentionally inserts tech metaphors or logic-based language.

Challenge 6: What's your rubric?

- You teach Marketing. You want to score students on the 4P's - Product, Price, Place, and Promotion. Use an AI tool to develop a rubric when the question is:

Imagine you have been hired as the marketing director for a local race track. The track is located on the outskirts of a major city near the airport and wants to host a new annual event called the "**Velocity Festival**" to attract a younger audience (ages 18-35).

Wrapping up the day.... Are you faster than a college student...

- Welcome Hudson and Tucker
- You will be given a question, can you find the answer - using your favorite AI tool – before Hudson and Tucker?
- For each question you will have the opportunity to change your AI tool or each team member can use a separate tool to increase your odds.

Sites used

- <https://elevenlabs.io/app/speech-synthesis/text-to-speech>
- <https://copilot.microsoft.com/chats/wgzGgJhfKxokUiBL6o2rp>
- <https://perplexity.ai>
-



Welcome AI Future Leaguers!

What to expect today?



Introduction to AI...

What is the difference between paid subscriptions and free AI tools?

Feature	Free AI Tools	Paid AI Tools
AI Models	May use older, less powerful models.	Often use the latest, most advanced models for higher quality and accuracy. Often faster results.
Usage Limits	Typically have strict limitations on usage, such as a maximum number of queries or words.	Usually eliminate or significantly increase usage limits, allowing for more extensive use.
Features	Basic functionality, with advanced features like plagiarism checkers, specific integrations, or tone adjustment locked out.	Include specialized features for tasks like SEO, citations, advanced data analysis, or more complex creative tasks.
Privacy and Security	May have less stringent privacy policies and may use your data for training.	Often provide stronger security, data encryption, and options to opt out of data being used for training.



#1:

Name the top 10 most commonly used AI tools.



Rank	AI Tool	Use Case / Why It's Popular
1	ChatGPT	Writing help, explanations, brainstorming
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5	Canva (with AI features)	Visual content creation, presentations
6	Grammarly	Writing assistant, grammar and tone check
7	Otter.ai	Transcription and note-taking from lectures
8	Consensus	AI-powered academic research engine
9	Elicit	Literature review and paper summarization
10	Reclaim	Calendar and scheduling assistance

Enhancing Communication and Workflow

Writing Assistance with Grammarly

Grammarly helps refine grammar, tone, and clarity, improving the professionalism of written communication.

Real-Time Transcription by Otter.ai

Otter.ai provides real-time transcription services for meetings, lectures, and interviews to capture all details.

Productivity Boost with Notion AI

Notion AI integrates note-taking, task management, and document creation for seamless work organization.

AI Assistance via Microsoft Copilot

Microsoft Copilot offers AI-powered help with writing, data analysis, and email drafting to streamline tasks.



Streamlining Operations



AI for Routine Task Automation

AI tools automate repetitive tasks, increasing efficiency and reducing workload.

Ex. *"Draft a friendly email to be sent to all faculty reminding them that final grade submissions for the Fall semester are due next Monday by noon. Include a link to the submitting your grade document and mention who to contact for help."*

How would you further clarify with details?

Tools

recommended: chat.openai.com or copilot.microsoft.com or any favorite AI tool.

Other tools?

Streamlining Operations



AI Calendar Optimization

AI calendar assistants optimize meeting schedules to reduce conflicts and improve time management.

Reclaim.ai - efficient time use

Trevor.ai - to do lists and calendars

It is important to ask whether or not you want to be that efficient....

Streamlining Operations

AI-Assisted Recruitment

AI-powered recruitment tools enhance candidate engagement, interview scheduling, and query handling.

Paradox.ai - handles each step of the way but can be impersonal at times.

You can customize videos such as [LINK](#) or [LINK2](#)

Other tools?

Canva, Hey Gen, Adobe



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#2: How good is your prompt engineering?

Who can tell me:

- What state is a size most similar to the average size of US population?

We have some options...

The old fashioned way... I Googled it...:

What is the average US state/territory/commonwealth population:

- Total Population: Approximately 335 million people.
- Number of Entities: 50 states + 5 major territories (American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands) + 4 commonwealths = 59 entities.
- Calculation: $335,000,000 \div 59 \approx 5,677,966 = @ 5.7 \text{ million}$
- Colorado: Population of 5,957,493, with a difference of 10,125 from the target population.
- Wisconsin: Population of 5,960,975, with a difference of 13,607 from the target population.

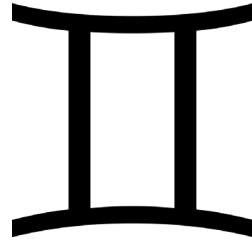


What did you ask? What answer did you get?

I asked three AI tools:

Which US state/territory has a population size that is closest to the average state size in the US?

Gemini -



State	Population (2024 Est.)	Difference from Average (6,716,175)
Indiana	6,924,275	208,100
Maryland	6,263,220	452,955
Missouri	6,245,466	470,709
Tennessee	7,227,750	511,575
Massachusetts	7,136,171	419,996

The question asks for the US state/territory closest to the **average state size** in the US. This usually refers to the average population of the 50 states (excluding territories unless specified, and often excluding the District of Columbia as well, as it is a federal district).

- 1. Calculate the Average State Population:** Based on 2024 population estimates for the 50 US states, the total population is approximately **335,808,740**. The average population is $335,808,740 \div 50 = 6,716,175$.
- 2. Compare State Populations to the Average:** We need to find the state whose population is closest to 6,716,175. Looking at the states near this value (using 2024 estimates in the millions):

The population of **Indiana** (6,924,275) is the closest to the average state population of 6,716,175, with a difference of 208,100.

Therefore, the US state with a population size closest to the average state size is **Indiana**.

Deepseek - Indiana

Step 1: Understand the problem

We're looking for the US state or territory whose population is closest to the average (mean) population of US states (including territories, since the question says "state/territory").

We need to clarify:

- “Average state size” means average population, not land area.
- “US state/territory” means we should include all 50 states + DC, and possibly Puerto Rico and other inhabited territories.
- Often, “average” here is the mean (total US population divided by number of states), but sometimes people use median — the question says “average,” so I’ll use mean.

Step 2: Decide on the dataset

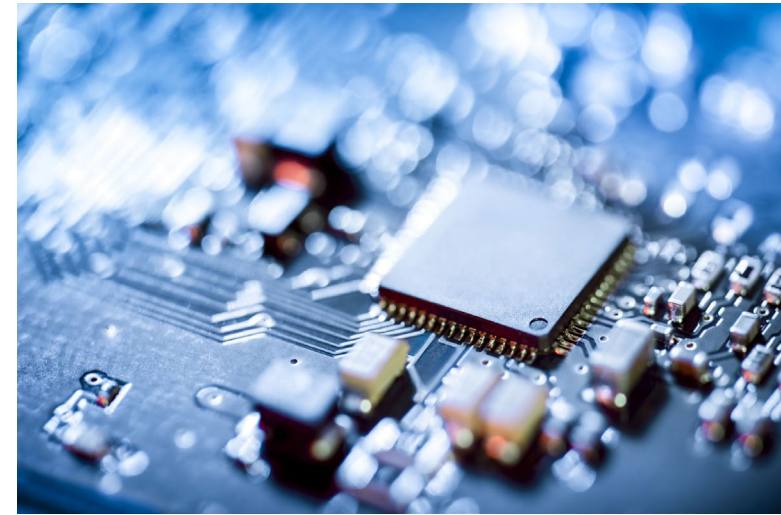
- 50 states, including the District of Columbia (treated as a “state” for this average)
- Possibly Puerto Rico, Guam, US Virgin Islands, Northern Mariana Islands, American Samoa.

But the standard approach in such quiz-type questions is 50 states + DC (so 51 “states” for averaging).

Step 3: Get populations

Using 2022 estimates (approx.): Total US population ~ 333 million.

If $n = 51$ (50 states + DC), $\text{mean} = 333,000,000 / 51 \approx 6,529,412$.



Chatgpt - Minnesota



- The average U.S. state population is about 5,763,868 people.
- Looking at recent state populations, the state whose population is closest to that average is Minnesota, which has around 5.8 million people (2023 estimate)

What are some things you noticed?
What can make a difference?

#3 Pre-lunch activity

The "Team Name Fusion" Exercise

Time: 15-20 minutes

Goal: To create a unique team name by combining one work-related fact and one personal favorite thing from each team member.

Instructions:

- **Individual Brainstorm (3 minutes):**

- Give each person a piece of paper or a digital document.
- Each person must write down:
 - **One interesting or funny fact about their work style or a work habit.** (e.g., "I can only focus with lo-fi beats," or "I answer emails in order of subject line intrigue.")
 - **One of their favorite things.** This could be a favorite animal, food, hobby, movie, superhero, etc. (e.g., "Penguins," "Tacos," "Napoleon Dynamite," "Birdwatching.")



- Share & Laugh (5 minutes):
 - Go around table and have each person share their two items.
 - Create a list of all attributes shared.
- The Fusion Process(7 minutes):
 - As a group, each person should put the complete list into 4 different AI tools. Suggestions:
Copilot, Chatgpt, DeepSeek, Gemini....
 - Your mission: Combine elements from this list to create potential team names.
 - Pro Tip: Suggest alliteration, puns, funny, corny, witty, dangerous, or concepts that represent the team's collective spirit.
- Vote & Decide (2 minutes):
 - Narrow it down to 2-3 top choices.
 - Take a final vote to decide on the official team name!

Create the team theme song or music video!

- Using your team name and any additional details you want to include about you, your team, or BCTC, create a theme song or music video.
- You can use any tool you choose, but some suggested tools are:
 - **Soundraw** – free to use, but can't distribute the song to sell.
 - **AIVA (Artificial Intelligence Virtual Artist)** - free to use, but you must credit AIVA.
 - **Tad AI** - free to use but credit Tad AI
 - **Invideo ai** - free to use for video creation, credit Invideo. It will take 10 – 15 minutes to generate.

LUNCH Break





#4: Ghost Students

There are two students on the next slide. Which one is real and which is a "ghost student"?

- Name: Aisha Thompson
- ID: 20254321
- Major: Business Administration
- LMS Activity: Daily logins, completed midterm
- Email History: Requested tutoring support
- Attendance: 85%
- Financial Aid: FAFSA submitted and verified
- IP Address: Matches home address ZIP code



Name: Ashley Johnson
ID: 20250002
Major: General Studies
LMS Activity: Logged in once, no submissions
Email History: One generic email to registrar
Attendance: No records
Financial Aid: FAFSA flagged for verification
IP Address: Proxy server, out-of-state

What stands out?

Signs of a ghost student:

- Never attends class or submits work.
- No record of logging into digital platforms (LMS, email, etc.).
- Contact info (phone, email, address) bounces or is blank.
- Teachers or advisors don't know them personally.
- Attendance and assignment data are entered manually or inconsistently.
- Multiple records share suspiciously similar details (same address, email domain, or handwriting on paper forms).

Signs of a fake or inactive account:

- Generic profile photos, strange usernames, or incomplete bios.
- Recycled or AI-generated discussion posts.
- Replies that don't match the class context.
- Irregular or identical login patterns (e.g., multiple accounts from the same IP).

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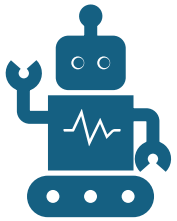
#5: The Best Community College in the Galaxy!

You have been selected to lead the relocation of BCTC to Mars. You already have a recruitment video, so your mission: build a plan for a fully functional campus that supports learning, operations, and community life in an extraterrestrial environment.

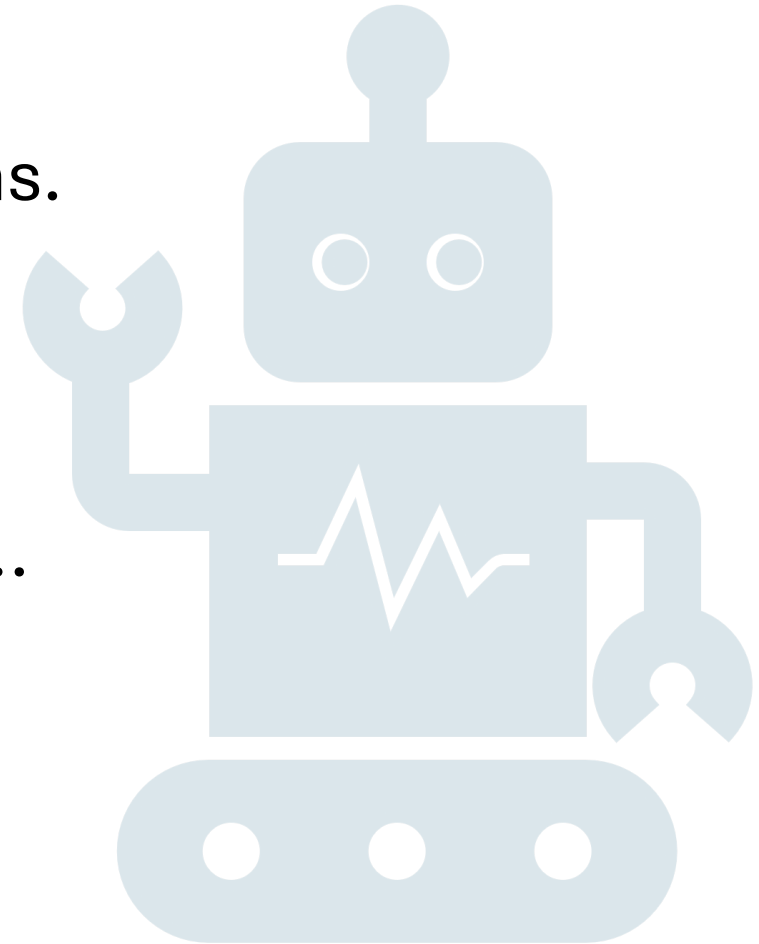
Your goals:

1. Develop a campus design.
2. Create an organizational chart.
3. Create a brand for the college including logo and mascot.
4. Create a timeline and to-do list for the kick-off celebration.
5. Share with the group

Wrap up



- Don't be afraid to explore options.
- Prompt engineering gets better the more you use it.
- AI can be wrong. Always check facts, proofread, review....
- AI is a tool, not a crutch.



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Challenge 6: AI can do THAT?!

- Step 1: Write down your top 3 job duties that you think can be improved, are repetitive, or could be streamlined.
- Step 2: Can AI help come up with ideas? Can AI do them for you?!
- Step 3: Let's explore! Here is your opportunity to find out.

Sites used

- <https://elevenlabs.io/app/speech-synthesis/text-to-speech>
- <https://copilot.microsoft.com/chats/wgzGgJhfKxokUiBL6o2rp>
- <https://perplexity.ai>

Challenge #1: Mars Colony Challenge: Building and Recruiting the First Settlers

Scenario

The year is 2045, and humanity is launching its first permanent colony on Mars. Your team, part of the Mars Recruitment and Sustainability Task Force, must ensure the colony starts strong and thrives long-term. This requires estimating the initial population, defining who should join, and crafting a marketing strategy to recruit the right pioneers.

Task

Develop a proposal for populating and promoting the new colony, including:

1. **Naming the new colony:** Think of names that would entice settlers to go.
2. **Initial Population Size and Composition:** Estimate the number of settlers in the first wave (e.g., 50–500 people) and their makeup (age, gender, skills, diversity). Justify your choices based on resource needs (e.g., food, oxygen), habitat limits, and workforce roles.
3. **Selection Criteria:** Define the qualifications and traits of ideal candidates. Include key skills (e.g., engineers, doctors) and psychological traits (e.g., teamwork, isolation tolerance). Suggest 2–3 interview questions to assess these qualities.
4. **Marketing Plan:** Create a recruitment campaign to attract your target candidates. Identify your audience (e.g., scientists, adventurers), craft 1–2 compelling messages, 1-2 marketing images, and select 1–2 communication channels (e.g., LinkedIn, VR simulations). Highlight opportunities and address Mars' challenges.

Use AI or online tools to generate content and ideas.

Suggested AI tools: Adobe Firefly, Perplexity, Copilot, ChatGPT or any other you are familiar with.

Rules

- Teams will have 25 minutes to complete the challenge. You will have an additional 5 minutes to submit your work.
- Any online or AI tools (e.g., data analysis, generative AI, design platforms) are permitted.
- Submit your proposal as a concise presentation (max 5 pages or slides), including:
 - A copy of your prompt(s) and what tool(s) you used.
 - A summary of your recruitment plan (max 300 words).

- 1–2 sample marketing visuals (e.g., ad mockup, social media posts).
- All team members must contribute.

Judging Criteria

Your submission will be scored out of 100 points:

- **Feasibility (25 points):** Are your population size, composition, and growth strategy practical for Mars' conditions?
- **Selection Quality (20 points):** Are your candidate criteria specific, justified, and supported by relevant assessment methods?
- **Marketing Effectiveness (25 points):** Is your campaign creative, targeted, and compelling, balancing opportunities and challenges?
- **Use of Tools (15 points):** How effectively did you leverage AI or online resources to enhance your proposal? How creative and thoughtful was your prompt?
- **Clarity & Visual Presentation (15 points):** Is your plan cohesive, concise, and visually clear?

Get ready to shape the future of humanity on Mars —good luck, pioneers!

Mars Colony Challenge: A Sustainable Mars

Scenario

The year is 2060, and humanity's first colony on Mars is thriving. Your team, part of the Martian Sustainability Task Force, must ensure the colony remains safe, efficient, and cost-effective in accumulating resources to support life. This includes addressing challenges specific to Mars' environment and utilizing AI tools for innovative solutions.

Task

Develop a plan for resource procurement and allocation in the Martian colony, focusing on:

1. **Crucial Resources:** Identify essential resources for sustaining daily life (e.g., water, air, food, shelter, energy, fuel).
2. **Extraction vs Transport:** Analyze the costs and feasibility of extracting materials from Mars compared to transporting them from Earth.
3. **Allocation and Storage:** Estimate per-person resource requirements annually and propose storage solutions.
4. **Environmental Challenges:** Address Mars-specific issues such as atmosphere, temperature, and storm activity.
5. **Energy Production:** Evaluate effective and abundant energy sources on Mars, comparing renewables and non-renewables.
6. **Technologies:** Identify new or pre-existing technologies necessary for colony sustainability.
7. **Social and Ethical Considerations:** Discuss resource distribution policies, including decision-making processes and equity.

Rules

- Use AI tools or platforms (e.g., Adobe Express with Firefly, ChatGPT, Claude, Gemini) to come up with a list of challenges and a cost estimate to make Mars a sustainable habitat.
- Document your process, including tools and techniques, as part of your submission.
- The final submission must include:
 - A list of tools and techniques utilized.

- A copy of your prompt(s).
- An AI-generated image of your imagined colony.
- A table or spreadsheet showing resource allocation per person per Martian year.

Judging Criteria

Submissions will be assessed based on:

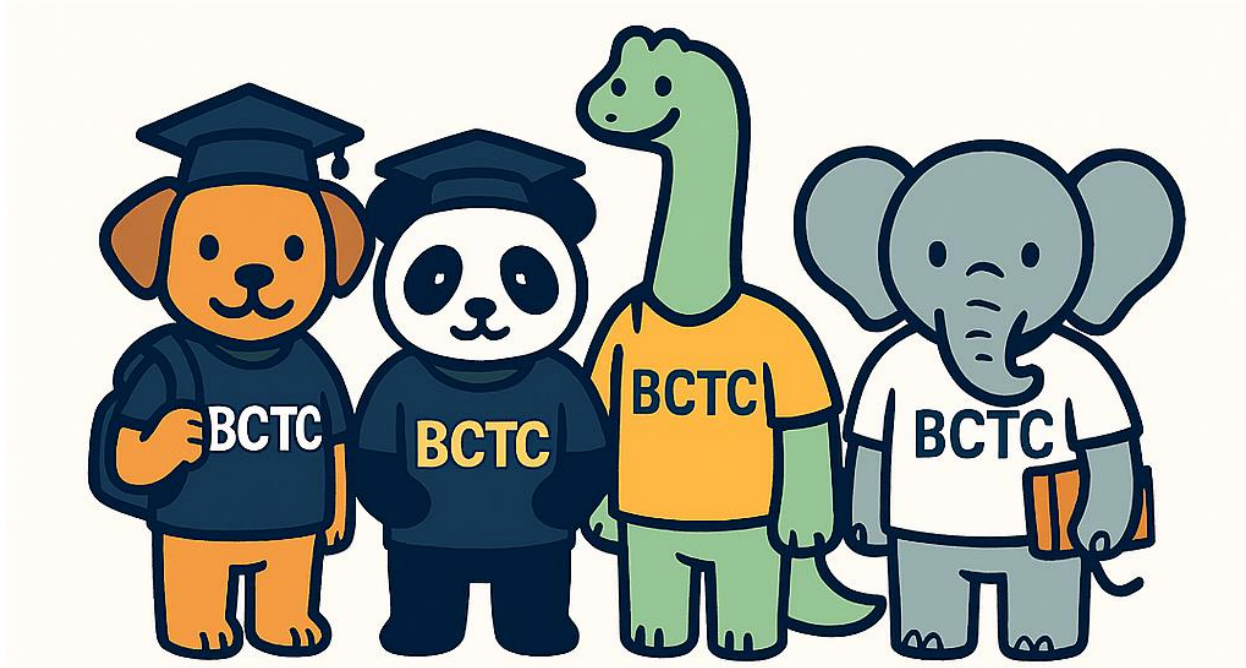
1. **Scientific Support:** Evidence-based decisions and physical justification for a realistic colony. (25 pts)
2. **Technical Execution:** Effective use of AI tools, including diagrams, spreadsheets, and images. (25 pts)
3. **Interdisciplinary Thinking:** Inclusion of social, cultural, and political norms affecting resource allocation. (25 pts)
4. **Originality:** Unique and innovative approaches and prompt(s) to solving sustainability challenges. (25 pts)







Strategic Goals for BCTC



By Lynn, Erica, Ally, & Melissa

Goal 1: Identify and Reduce Underprepared Credentials



CONDUCT ANNUAL
CURRICULUM AUDITS TO ALIGN
WITH INDUSTRY STANDARDS



DEFINE MEASURABLE LEARNING
OUTCOMES FOR EVERY
CREDENTIAL



TRACK GRADUATE EMPLOYMENT
RATES AND EMPLOYER
SATISFACTION

Goal 2: Strengthen Student Academic Preparedness



Use multiple measures for placement and expand co-requisite models



Offer summer bridge programs and early college readiness initiatives



Train faculty in active learning and culturally responsive teaching

Goal 3: Increase Credential Value and Transparency



PUBLISH CLEAR PROGRAM
OUTCOMES AND CAREER
PATHWAYS



EXPAND INTERNSHIPS AND
EMPLOYER PARTNERSHIPS



IMPLEMENT CAREER-
FOCUSED ADVISING USING
LABOR MARKET DATA

Summary



Goal 1: Ensure credential
quality and workforce
alignment



Goal 2: Improve student
readiness and support



Goal 3: Enhance
transparency and
employer engagement



