M Gmail   **Rudy Martin <realrudymartin@gmail.com>**

Changes to schedule version 2

Rudy Martin <realrudymartin@gmail.com>   Wed, May 21, 2025 at 11:26 AM
To: Younjoo Lee <younjoo8@gmail.com>

Please take a look at this for our discussion tomorrow. We need to get materials together for these. Something is still "off" about this.

Time Slots

Lectures/Demos: 20–30 min max, followed by Q&A or activity.

Hands-on/Team Activities: 45–60 min blocks, with clear deliverables.

Breaks: Every 90 minutes, minimum.

Reflection/Discussion: 15–20 min at end of each day.

Revised 5-Day Schedule for 20 Students

Session	Day	Time	Action	Material Covered	Educationa
1A	1	9:00–9:30	Icebreaker	Student icebreaker activities	Getting to know other
1B	1	9:30–10:00	Welcome, Syllabus Overview, Culture Setting Talk, Questions?	Instructor introduction, Overview of week, Culture expectations, Q&A	Professionalism Setting/Expecta
1C	1	10:00–10:45	AI/Data Science Orientation + Introduction to AI Models	Basic AI concepts, DS vs AI vs ML, Linear models, Neural networks, CNNs, AI agent types	Introduction to / Science
1D	1	10:45–11:00	Morning Break	Break	-

Session	Day	Time	Action	Material Covered	Educationa
1E	1	11:00–12:00	Hands-on Python Programming (Google Colab)	Set up Colab, Python refresher, Coding exercises (pair programming)	Introduction to I Programming
1F	1	12:00–12:30	Biological vs. Artificial Perception	AI perception, object detection in space missions	Introduction to (Vision
1G	1	12:30–1:30	Object Detection Coding Exercise	Python coding for object detection (team-based)	Hands-on with (Detection
1H	1	1:30–2:00	Mission Overview + Reflection	Mission Overview, Review, Preview Day 2	-
1I	1	2:00–2:15	Afternoon Break	Break	-
2A	2	9:00–9:15	Recap of Day 1, What's Ahead Day 2	Recap, Day 2 Overview	-
2B	2	9:15–9:45	Mission Overview & Team Formation	Mission tasks, Goals, Tech, Team formation, Role Assignment	Team Building
2C	2	9:45–10:45	Object Classification, Object Detection, Data Pre-processing	Object detection in ESP 32, Install YOLO, Take pictures, Preprocessing (team-based)	Data preproces object detection
2D	2	10:45–11:00	Morning Break	Break	-
2E	2	11:00–12:30	Object Classification, Detection, Test Mission Phase I	Finish setup, Test detection models (team-based, staggered support)	Hands-on Appli
2F	2	12:30–1:30	Lunch	Lunch	-
2G	2	1:30–2:15	Model Evaluation & Metrics	Accuracy, precision, recall, F1, Confusion matrix, Interactive demo	Model Evaluatic Error Analysis
2H	2	2:15–2:30	Afternoon Break	Break	-

Session	Day	Time	Action	Material Covered	Educationa
2I	2	2:30–4:00	Cargo Shipment Item Allocation – Object Detection & Classification	Create decks, Allocate cargo, Run simulations, Debugging (team-based)	Model Evaluatic Error Analysis
3A	3	9:00–9:15	Welcome & Day Overview	Recap Day 2, Goals, Introduce Mission Phase II	-
3B	3	9:15–10:30	Deck Requirements and Constraints Coding	Collaborative coding, Test with cargo, Evaluate model	Coding Logic: Requirements a Constraints
3C	3	10:30–10:45	Morning Break	Break	-
3D	3	10:45–12:00	Hyperparameter Tuning	Intro, Hands-on tuning, Documenting effects (team-based)	Hyperparamete Model Evaluatic
3E	3	12:00–1:00	Lunch	Lunch	-
3F	3	1:00–2:30	Team Collaboration & Iteration	Discuss progress, Implement tuning, Iterate for optimal model	Team Collabora Model Improver
3G	3	2:30–2:45	Afternoon Break	Break	-
3H	3	2:45–3:30	Dashboard Development	Discuss metrics, Generate dashboard, Team presentations	Real-time Dash Reporting
3I	3	3:30–4:00	Reflection & Troubleshooting	Reflect on Mission Phase II, Troubleshoot errors	-
4A	4	9:00–9:15	Welcome & Day Overview	Recap Day 3, Goals, Introduce Mission Phase III	-
4B	4	9:15–10:30	Introduction to LLM	What is LLM?, How do they work?, Examples (ChatGPT)	LLM
4C	4	10:30–10:45	Morning Break	Break	-
4D	4	10:45–12:30	ChatBox Setup & Development	Frontend (UI), Backend (Flask), Database (SQL?), Team-based	Human-Compu Interaction, Dat

Session	Day	Time	Action	Material Covered	Educationa
4E	4	12:30–1:30	Lunch	Lunch	-
4F	4	1:30–2:15	ChatBox Testing & Mission End-to-End Test	Test Chatbox, Run Mission end-to-end	HCI, Database, Detection, Dasł
4G	4	2:15–2:30	Afternoon Break	Break	-
4H	4	2:30–4:00	Presentation Preparation	Presentation requirements, Tips, Prepare presentations	Presentation Sł Professionalism
5A	5	9:00–9:15	Welcome & Final Day Overview	Overview of showcase	-
5B	5	9:15–11:00	Final Polish & Practice Run	Finalize projects, Fix bugs, Rehearse presentations	Presentation Sł
5C	5	11:00–11:15	Morning Break	Break	-
5D	5	11:15–12:00	Practice Run	Final presentation practice	Presentation Sł
5E	5	12:00–1:00	Lunch	Lunch, Informal discussions	-
5F	5	1:00–2:30	Online Showcase	Presentations via Zoom to parents, guests, faculty	Presentation Sł
5G	5	2:30–2:45	Instructor & TA Determine Awards, Afternoon Break	Instructor and TA determine awards	-
5H	5	2:45–3:15	Instructor Feedback & Awards	Feedback for each team, Present awards	-
5I	5	3:15–3:45	Farewell + Future Learning Resources	Wrap-up, Future resources, Career paths	Presentation Sł Career Explorał
5J	5	3:45–4:30	Optional Q&A / Open Discussion / Closing	Final reflections, Q&A	-

Notes:

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