2025-26 Course Syllabus

Welcome to NASA High School Aerospace Scholars (HAS)! We are so excited to have you join this activity! As a junior in high school, we understand you have a full schedule of classes and possibly extra-curricular activities. HAS is a great opportunity, but it will require work and effort on your part. Our number one goal is your success! Please feel like you can come to us with questions, concerns, and feedback. If we work together, we can help you achieve your future goals and dreams. What you do today matters and will help shape the choices you have tomorrow. Congratulations on being accepted, and once again, welcome to HAS!

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⭐ Course Delivery and Eligibility Criteria

🧮 HAS Online Course Structure

The online course content is divided into five parts:

1. **Onboarding**
2. **Mission 1 | Life in Explore Mode** 🔭
3. **Mission 2 | Coding for Remote Exploration** 🤖
4. **Mission 3 | Design for Human Exploration** 📐
5. **Mission 4 | Mission Planning for Sustained Space Exploration** 🧑‍🚀

Each mission is designed around the essential skills required to successfully plan a human mission to the Moon and Mars. Missions are further broken down into **Tasks**, focusing on **science, technology, engineering, and mathematics (STEM)** concepts. Tasks may include **readings, multimedia content, discussion posts, and hands-on activities** to help you develop critical skills that are in demand in today's workforce and deepen your engagement with NASA and its missions.

🗞️ Webinars

Once per mission, the **HAS Team** will host an online webinar featuring a **NASA expert**, and attendance is strongly encouraged. These webinars offer a **unique opportunity** to ask questions and gain insights that can shape your future. To make the most of each session:

- Review the **pre-webinar materials** provided to help you prepare.
- **Come ready with a question or two** to ask during the discussion.
- Active participation makes these events especially valuable—so be engaged!

👥 Mentor Meetings

As a junior in this course, you have access to valuable resources designed to support your success—one of the most important being our team of Senior Mentors. These mentors are students who have successfully completed the HAS Online course you're taking now.

> 🗓️ **Mentor Meetings:** Each module, your Senior Mentors will host meetings for you and your fellow HAS Cadets. These sessions are a great opportunity to connect, ask questions, and gain practical advice and tools to help you thrive in the course. ***Attending these meetings synchronously and participating will earn you 5 extra points to be added to your current module point total.***

📅 *Mentor meetings typically take place during week 4 and the first half of week 5 in each module (so during the time you are working on Tasks 4 and 5 for each module).*

🌟 **Looking Ahead:** The mentor role is one you can aspire to as a senior! It's a chance to give back, lead, and support future cadets—just as your mentors are here to support you now.

🤖 HAS Engineering Design/Coding Challenges

HAS includes four **in-person or virtual-synchronous** engineering design and coding challenges (EDCs). These are listed in the course schedule.

- You must participate in **all** engineering design challenges, synchronously, two dates will be offered for each challenge.
- You will receive materials along with your welcome package to be able to participate in these challenges.
- Your participation must be **either in-person or virtually (synchronous)** for the chosen challenge.
- When you complete a challenge, **submit your discussion board post before the deadline** the next day, no late submissions will be accepted for HAS Challenges.

✅ Feedback and Improvement Suggestions

To continually improve the HAS online course, periodic optional, opportunities for you to offer feedback will be available.

- Links are at the bottom of each **Mission Home Page**.
- You can submit feedback **after completing an assignment or at the end of a module**.
- Multiple submissions are allowed, but please limit responses to **one per Task**.

🌕 Moonshot Participation Eligibility

This is a part of the HAS online course that takes place in the first two weeks of June each summer. In order to be eligible to participate in Moonshot, participants will need to do the following:

- Maintain at least a 70% average in the online course work.
- Complete **all four** Engineering Design/Coding Challenges.

- Attend or watch all webinars and complete **all** webinar discussion posts.
- Attend at least **two** mentor meetings (all are strongly encouraged).
- Have no more than **two** missing Tasks (*these cannot be any Task from Mission 4*.)
- Not have more than **one** infraction for academic dishonesty.

🌏 **Summer Onsite Experience Eligibility**

This experience is open to students on the winning teams from Moonshot. To maintain eligibility for an onsite visit to JSC, which will include behind the scenes tours, networking opportunities, and challenges, you will need to do the following:

- Maintain at least a 70% average in the online course work.
- Complete **all four** Engineering Design/Coding Challenges.
- Attend or watch all webinars and complete **all** webinar discussion posts.
- Attend at least **two** mentor meetings (all are strongly encouraged).
- Have no more than **one** missing Task (*this cannot be any Task from Mission 4*.)
- Have **zero** infractions for academic dishonesty.
- Participate in Moonshot **AND** be on one of the winning Moonshot teams.

⭐ Course Expectations, Best Practices and Norms

🚀 What is expected of you?

An online course requires you to take charge of your learning. To succeed, you must be self-motivated and proactive in keeping up with coursework. The key to success? Start Early, Turn in Early! Here's how:

⭕ Canvas Login

- Log in to the HAS course several times a week to check announcements, discussion posts, and replies.
- Regularly check your email for notifications—consider forwarding Canvas alerts to your phone or email for easier access.

🕓 Time Management

- Expect to spend 2–4 hours per week on coursework, though actual time may vary based on your learning and work style.
- Plan ahead to accommodate unexpected challenges like illness, travel, or internet outages. Start Early, Turn in Early!

📅 Keeping Track of Due Dates

Use the HAS Course Schedule as a guide and stay updated via Canvas. Here's how to stay on top of assignments:

- Mark your calendar with due dates and aim to submit assignments weekly and on-time.
- Some tasks, such as project research, video creation, programming, or 3D software work, may require extra time—plan ahead!
- Many students start early and submit early, a smart strategy for staying ahead.
- Each new module can open up to one week in advance, if you are working ahead, which can allow extra time for more complex assignments.

💻 Netiquette: Communicating Online

Respectful interaction enhances the learning experience. Follow these guidelines for effective communication:

- Be courteous and professional in all messages.

- Review your writing before posting—it represents you!
- Use clear, descriptive subject headings.
- Be mindful of humor and sarcasm, as tone is easily misunderstood in text-based communication.
- Avoid repeating points already made in discussions.

📩 Stay Connected

If you have questions, comments, or feedback, don't hesitate to reach out. We're here to help, but we can't address issues unless we know about them!

⭐ What You Can Expect From Us

As course facilitators, we are dedicated to delivering a high-quality learning experience through careful planning, implementation, and assessment of course activities. We also strive to be accessible and supportive throughout the course by:

- Scheduled appointments via Teams.
- Optional, web-based synchronous sessions.
- Responding to Canvas email inquiries within 24 hours.
- Returning graded coursework within one week of the assignment's due date.

⭐ Course Policies

📅 Assignment Due Dates and Grading

1. ***Technical Issues*** - Assignments are due on the date/time indicated. Exceptions are granted on a case-by-case basis. If you submit assignments very close to the deadline, any technical problems with your computer or internet connection may lead to missing the deadline. **YOU are responsible for making sure that your assignments are uploaded, complete, and visible by the deadline. Let us know as soon as possible if you encounter technical issues.**
2. ***Deadlines*** - All Tasks for a Mission have their own individual due dates but will remain open for submission after the due date for late credit until 11:59pm CST on the last day to submit late work for a Mission.
3. ***Course Progression*** - Within a Mission, you must begin with Task 1, as you complete each Task, the next one will become available.
4. ***Pacing Guide*** - Follow the pacing guide to help you stay on top of completing your assignments on-time.
5. ***Grading Assignments*** - Technical Reviewers will grade submitted assignments within one week or sooner.
6. ***Resubmissions*** - If you wish to resubmit an assignment for a higher grade, you will need to **start early and submit early**, any additional submissions past the due date are still subject to late penalties. Communicate with your technical reviewer if you resubmit an assignment to make sure they are aware.
7. ***Emergencies or Extenuating Circumstances*** - If you need an extension due to extenuating circumstances, you must reach out to your Technical Reviewer BEFORE the deadline for a Task or the last day to submit late work for a Mission.
8. ***Grade Disputes*** - If you disagree with your score on a Task, you must reach out to discuss the issue with your Technical Reviewer within 7 days of the grades posting in order for your technical reviewer to make a change. After this point, all posted grades are final.
9. ***Grade Calculation*** - Grades are automatically calculated by the Canvas gradebook, this includes the calculation of late point penalties based on the due date and submission date.

🕓 Submitting Late Assignments (Tasks)

1. Tasks that are submitted after 11:59pm on the due date will accrue a 5% penalty per day until the highest score possible is a 60%.

2. Tasks cannot be submitted beyond 11:59pm CST on the last day to submit work for a Mission. Once a Mission has closed, grade disputes are not accepted and all submission boxes are permanently closed.

❌ Missing Assignments (Tasks)

1. Tasks that are not submitted will receive a zero in the gradebook and will count toward the missing Tasks count.
2. Some Tasks will have multiple types of submissions, for example, you may be required to participate in a discussion board AND submit a deliverable in order to complete that week's Task. In order to avoid missing assignments, please ensure that you are completing ALL parts of a Task. If you have questions about what is expected, reach out to your Technical Reviewer EARLY in the week.
3. A blank submission does not count as a completed Task and will count as a zero AND a missing assignment.
4. Missing Tasks impact your eligibility to participate in the different levels of the HAS program. The following outlines the consequences for the accumulation of missing Tasks:
    1. **First missing Task**: Tasks recorded as zero.
    2. **Second missing Task**: Tasks recorded as zero AND student will no longer be eligible for the summer onsite experience.
    3. **Third missing Task**: Tasks recorded as zero AND student will no longer be eligible to participate in Moonshot or the summer onsite experience.
    4. **Fourth missing Task**: Student will be removed from the online HAS course and will not be eligible for course credit.
5. Students with NO missing Tasks at the end of the course will be eligible to have their lowest grade dropped at the end of the course. Note: Students with missing and/or plagiarized work will not be eligible for a dropped grade.

✅ Academic Integrity

Definition

Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, submitting work of another person or work previously

used without informing the instructor or tampering with the academic work of other students. **Academic dishonesty is grounds for removal from HAS.**

Policy on Group Work

In HAS, we are aware that students from the same educational institution oftentimes submit applications together and serve as support systems for each other during the school year. That being said, please be aware that competitive onsite selections are made based off of ***individual work***. For the sake of transparency, if you submit an assignment that you have worked on closely with a peer, you **must** disclose that information in your submission. Though thought processes may be similar, we expect the work to contain unique conclusions and supporting information. If you are unsure if your assignments look too similar, please consult your technical reviewer(s) prior to the submission deadline. If you do not disclose this information, your technical reviewer is entirely justified in giving both of you a 0% on the assignment. We have had this scenario arise in the past and are giving you a fair warning.

Policy on Assignment Assistance from Educators

We are proud to have a strong network of Texas educators who assist NASA in promoting HAS. Many educators are willing to help students with thoughts or feedback on online work. If you have a trusted educator in mind that you want to run ideas by, feel free to pursue this path. We trust that school educators are experienced with offering tutoring or guidance **without completing assignments for students**. Keep in mind that your assigned technical reviewer is your closest and strongest resource. We encourage you to utilize them as well, it may be a good first contact before pursuing assistance elsewhere. While technical reviewers **cannot provide you with answers**, they may be able to point you in the right direction.

Policy on Cheating

The HAS program has existed since 1999. As team members with ample experience at NASA and in the classroom, we are well-versed in methods and techniques that students use to unfairly obtain answers, whether it be via a past alum, scouring online forums, or use of artificial intelligence software. We strongly discourage this practice. This is not behavior that is acceptable at NASA or at any educational institution. Many of our technical reviewers have served as graders for many years and recognize replicated student work adeptly. Our program also maintains a repository of past alum submissions. Each assignment, we run a program to cross-check current and past submissions. Each year, we find matches and directly confront students on the integrity of their work. Many of these students end up getting removed from the course or receiving a 0% grade. Please don't find yourself in this situation. If you need help, ask for it.

Policy on Academic Review

We developed this comprehensive document for a reason. Each year, we encounter dozens of academic integrity issues. There is a process in place. First, your technical reviewer will reach out to you regarding the issue, as well as reach out to NASA education management with the assignment in question. The NASA team confers independently to reach a decision. Following this meeting, a final decision is communicated to the student. **Please note that policy decisions are final and non-negotiable.**

Policy on Resubmissions

Upon notification by official HAS email of academic dishonesty, the technical reviewer will give a zero on the assignment with **no option to resubmit the work**. Students with a single academic dishonesty infraction may continue to finish the online course and earn their credit but **eligibility for summer experiences will start to diminish.**

❌ Consequences for academic dishonesty are as follows:

- **First incident**- Assignment recorded as a zero. Student will not be eligible for summer in-person onsite event.
- **Second incident**- Assignment recorded as a zero. Student will not be eligible for onsite event or Moonshot.
- **Third incident**- Students will be removed from course and will not be eligible for course credit.

🤖 AI Policy

You've been granted an exciting opportunity to expand your skills and explore the frontiers of innovation as part of the Texas Aerospace Scholars HAS program. Recognizing the growing role of artificial intelligence across STEM fields, AI has been intentionally incorporated into or encouraged in certain aspects of this course to enhance learning and exploration. Our goal is to encourage responsible AI use while ensuring that academic integrity remains at the core of your experience. To help you navigate AI tools effectively and ethically, we've outlined key guidelines to ensure your work is original, accurate, and aligned with responsible AI practices.

Understanding AI's Role

Complementary Tool – AI should serve as a **supporting** resource, not a **replacement** for human creativity, critical thinking, or independent effort. You are encouraged to use AI for some aspects of the work you will do to complete assignments in this course but all submissions must be predominantly your original work.

- **Students may use AI for:**
    - Initial overview research to identify possible sources of information.
    - Idea Inspiration when you get stuck.
- **Students May Not**:
    - Copy and paste AI generated text directly into assignments.
    - Use AI generated content that does not represent their own unique thoughts or research.
    - Use AI vocabulary or phrasing that is not unique to them.
    - State information from AI as facts without proper citation. AI generated content should always be treated the same way you would treat information from Wikipedia.

Academic Honesty and Integrity

- **Proper Attribution** – If AI-generated content is used in any form, participants must clearly cite and acknowledge it. Failure to properly attribute AI-generated material constitutes plagiarism and will trigger the academic integrity review process.
- For each assignment in this course, you will be asked to disclose if you used AI to help you complete the assignment. If you indicate that AI was used you will also be asked to describe how you used it, which AI platform you used and indicate your acknowledgement that your use of AI aligns with the course policies. This will help your Technical Reviewer understand your use of AI for better feedback and give us insight into how AI is being used in the HAS course.
- If you ever have questions about the appropriateness of a specific use of AI in your assignments, you should reach out to your Technical Reviewer for guidance before the assignment deadline, giving them a reasonable amount of time (at least 48 hours) to respond before you submit your work.

Ethical Use of AI

- **Accuracy & Verification** – AI tools may sometimes provide inaccurate or misleading information. Always **verify** facts, cross-check sources, and be mindful of potential biases in AI-generated outputs. AI generated content should always be treated the same way you would treat information from Wikipedia.
- **Responsible Usage** – AI should be leveraged responsibly, without attempting to manipulate or circumvent ethical academic standards. The spirit of scientific discovery relies on integrity, and AI should support — not undermine — this pursuit.

⭐ Grade Calculation

💯 Grading Weights by Mission

There are five graded modules, each worth 10-30% of your final grade for the online component of HAS. See the table below for the breakdown for each Mission in the HAS online course:

🧮 Final Grade Calculation:

- Onboarding (Earned/Total*100) * 0.10 = Total points from Onboarding
- Mission 1 (Earned/Total*100) * 0.20 = Total points from Mission 1
- Mission 2 (Earned/Total*100) *0.20 = Total points from Mission 2
- Mission 3 (Earned/Total*100) *0.20 = Total points from Mission 3
- Mission 4 (Earned/Total*100) * 0.30 = Total points from Mission 4
- ***Add up app total points to get your final Course Grade***

***Grades are automatically calculated by the Canvas gradebook, this includes the calculation of late point penalties based on the due date and submission date. If you are calculating your own grade, please be sure to account for late penalties and missing work. Please reach out to your TR for assistance if needed.**

In the Canvas Course there will be a table showing the point breakdown for each module. At this time, the table is not accurate because of the shifting timeline. Once we have more information on when we can begin the online course, this information will be updated and shared in Canvas.

⭐ Course Pacing Guide

🖊️ Course Pacing

The table below is a pacing guide to help you manage and structure your time. The key is to **Start Early, Turn in Early**! This approach allows flexibility for longer or more complex Tasks.

- Each Mission contains **4-6 Tasks**, with **one week allotted per Task**.
- **All Tasks within a Mission must be completed before unlocking the next Mission**.
- You may work ahead—**the next Mission will be available up to one week in advance**.
- Tasks must be submitted **by 11:59 PM CST on or before the due date** for full credit.
- **Late submissions** (for partial credit) are accepted **up to one week** past the last due date in a Mission (see table below).
- Missions **close permanently at 11:59 PM CST** on the final day for late credit—no further submissions will be accepted.
- Webinars will become available as they are scheduled, a communication will be sent out in advance of the webinar so that you can mark your calendar. All webinar discussion posts are due by the dates indicated below. ***No late submissions accepted for webinar discussion posts.***
- If unforeseen circumstances prevent you from meeting a deadline, **communicate with technical reviewers before the deadline** to explore solutions. *See the **Expectations and Course Policies** document for further details.*

***NOTE: Remember, If you are working ahead, there are some assignments that require you to respond to other students. You will need to make note of this if there is nothing for you to reply to yet so that you can go back and complete the assignment requirements!!**

In the Canvas Course there will be a table showing the due date and last day to submit for each assignment in the course. At this time, the table is not accurate because of the shifting timeline. Once we have more information on when we can begin the online course, this information will be updated and shared in Canvas.

⭐ Course Communications and Engagement

Clear and open communication is essential to your success in this course. To ensure you have access to important updates, support, and discussion opportunities, we've set up several communication channels. Whether you're seeking guidance on assignments, technical assistance, or simply a space to connect with peers, these resources will help you stay informed and engaged.

📢 Course Announcements

All course-related announcements are posted on the Canvas platform. These are important, be sure to check them weekly for important updates, reminders, and guidance from the HAS team.

📩 Canvas Inbox

This is the main communication portal for this course. You should be sending most communications to your TR through the Canvas Inbox. There are other places in the course that you may communicate with your TR (comment and feedback tools within assignments and discussion boards).

💬 Discussion Boards

There are two discussion boards designed to support different aspects of your learning experience:

- **Water Cooler** – A casual space for discussions unrelated to the course. Think of it as a virtual lounge where you can share interests and ideas with fellow participants.
- **Required Discussion Boards** – Some assignments require discussion board posts. This is where you will write and respond to those required discussions.
- **Other Discussion Boards –** Your TR or Mentor team may set up discussion boards just for your section (the group of students your TR monitors). These can be found on your TRs group section on Canvas.

📩 Email Communication

For any inquiries that don't fit within the discussion boards, you can reach the HAS team at JSC-has@mail.nasa.gov.

🤖 Microsoft Teams

At various points in the course, we will host live online sessions to bring in subject matter experts, answer questions, and provide additional support. These meetings will be recorded for those unable to attend.

- Attendance is required. If you cannot attend a session live, you must watch the recording and submit a deliverable based on its content.

💻 Individual Appointments

For concerns that cannot be addressed through discussion boards or email, individual appointments can be scheduled via Teams.

⭐ Office Hours and Contact Information

Office Hours & Support

To help you navigate the course effectively, both **Technical Reviewer Office Hours** and **HAS Team Office Hours** are available throughout your learning journey. These sessions provide direct access to guidance, troubleshooting, and strategies for success.

Technical Reviewer Office Hours

Your **technical reviewer** is available to support you with assignments, modules, and course-related inquiries. To request office hours, visit your **Technical Reviewer Discussion Board** on **Canvas** and schedule a time. Be sure to **mark your calendar** and attend these sessions to gain valuable tips for completing tasks successfully.

HAS Team Office Hours

The **HAS Team** is available **by appointment only** for issues that cannot be easily resolved through discussion boards or email. Appointments will be conducted via **Microsoft Teams**, providing direct assistance for more complex questions or concerns. Additionally, we will be available **for 10 minutes following live webinars** to answer any immediate questions. At the start of the course, we'll offer support for technical setup, and throughout the program, we'll provide guidance, troubleshooting, and additional assistance as needed. These sessions **complement** technical reviewer office hours, ensuring multiple opportunities for support throughout your learning experience. You may contact us at JSC-has@mail.nasa.gov.