



Request for Payload

1 Introduction

This document outlines the requirements for the Innovative System Project for the Increased Recruitment of Emerging STEM Students (InSPIRESS) Payload competition's Venus Observation Research & Technological Exploration (VORTEX) Mission. One interim review is scheduled during the semester to assess the design of the proposed payload: the Payload Concept Review (PCR). There is also a Final Review which each InSPIRESS team must participate in to be considered for selection. Each review/event requires deliverables be submitted to UAH in advance. The following paragraphs outline all of the required deliverables. Recommended templates for each of these deliverables can be downloaded from the InSPIRESS Canvas page.

2 Scope of Work

We invite you to participate in the Spring 2024 InSPIRESS program, where you are requested to design a payload that accomplishes a science objective to complement the Venus Observation Research & Technological Exploration (VORTEX) Mission. Furthermore, you are requested to plan and perform in-person as well as online outreach, which pertain to your payload and science objective(s).

2.1 The Challenge

Your challenge, should you decide to accept, is to design an autonomous science payload for a UAH-designed spacecraft, for a NASA planetary science mission-of-interest. Teams shall simultaneously create and conduct outreach events and maintain an online presence to explain your mission and engage the community. Consistent with the design of the payload, you and your team must:

- Determine the purpose(s), or objective(s), of your scientific payload onboard this spacecraft
- Understand, follow, and communicate the engineering design process, through which you will advance your payload
- Work on a team to communicate your payload design to an evaluation board

In order to fulfill the in-person and online outreach requirements your team must:

- Develop and conduct Activities for Community Engagement (ACEs) for the local community
- Create and maintain social media profiles and/or websites and create posts which engage the local community in your mission and STEM
- Gather data on the audiences of these profiles
- Communicate the results of your ACEs and online outreach to an external review board

Your payload design and outreach must conform to all the requirements and constraints listed in this Request for Payload (RFP), and in the InSPIRESS Design Notebook.



2.2 Payload Requirements and Constraints

2.2.1 Mission Resources Provided to the InSPIRESS Payload

The mission shall provide, at a minimum, the following spacecraft resources to each InSPIRESS team for the development of their scientific payload for the mission.

1. Housing from launch until the spacecraft has arrived at its destination
2. Continuous power as long as the payload is attached to the spacecraft
3. Access to their data delivery system to send the payload's data back to Earth
4. A supply of high-pressure (up to 4500 psia) helium for use in deployment of the payload from the spacecraft.

No waivers or deviations from these requirements are allowed.

2.2.2 InSPIRESS Team Requirements and Responsibilities

Each InSPIRESS Team shall provide a scientific payload design that shall be accommodated on a UAH-designed spacecraft for the mission. It shall conform to the requirements outlined in the previous section, and the following.

1. A majority of the science objective shall be conducted away from the spacecraft and the payload shall deploy from one of the baseline mission vehicles (orbiter or balloon).
2. The payload shall have a mass of 10 kg or less and occupy a volume of no more than 44 x 24 x 28 cm.
3. The payload shall provide its own power and data communications relay capability for use after exiting the spacecraft.
4. The payload shall survive all external environments during the mission. The payload only has to survive the environment for the duration of its experiment operations and data delivery to the spacecraft computer memory system.
5. The payload shall be designed to be safely stowed and to operate in a manner such that it does not pose ANY harm to the UAH-designed spacecraft.
6. The InSPIRESS team shall submit documentation on their proposed payload design to the UAH team as outlined in this document.

2.3 InSPIRESS Competition

You must successfully communicate your payload concept and your outreach via these methods:

- Payload Concept Proposal (**PCP**) - Written Proposal
- Monthly Analytics Reports (**MARs**) - Online Form
- Online Outreach Evaluation (**OOE**) - Online Form
- Open House (**OH**) - Poster Session
- Final Review (**FR**) - Formal Presentation



The evaluation criteria for these methods are described in subsequent sections of this RFP. The point distribution for the InSPIRESS Competition utilizes these five communication methods mentioned above. The competition point distribution is described in Table 1.

More details about the individual components, including how they are evaluated, are in the following sections of this RFP. A complete listing of all deliverables and reviews can be found in Table 8, on the last page of this RFP.

Table 1. InSPIRESS Scoring Rubric

| Scoring Component | Point Value | Focus |
|----------------------------------|-------------------------------|--|
| Payload Concept Proposal (PCP) | 20 | Payload Design |
| Monthly Analytics Reports (MARs) | 1 point each (3 points total) | Analytics data from social media profiles / websites |
| Online Outreach Evaluation | 7 | Outreach profiles / websites |
| Open House Poster Session (OH) | 20 | Outreach and payload design |
| Final Review (FR) | 50 | 40 points for design, 10 points for Online Outreach |

3 Format Guidelines

All documents shall comply with the following format guidelines.

1. 1-inch margins on all sides for the entire document
2. Main text - no smaller than Times New Roman, 11 pt. font
3. Table and figure captions - no smaller than Times New Roman, 8 pt. font

All presentations shall comply with the following guidelines.

1. Slide numbers on each slide
2. Arial or Tahoma font for the text
3. Text should be no smaller than 16 pt font
4. White or light slide backgrounds

4 Uploading Documents/Presentations

All deliverables (documents, presentations, posters, etc.) shall be uploaded via the “Submissions” module on the InSPIRESS Canvas page. Every upload requires the uploader’s name, email address, high school, team number, and a description of what is being submitted. Clicking on the “Upload a File” button will open a window where the user can highlight the file, and click “ok”. Upon successful completion of an upload, you should receive a confirmation email from the upload form (JotForm). Please inspect the email to make sure that the file you were attempting to upload was, in fact, uploaded properly. The teacher associated with your high school should also receive an automatic email when a file is uploaded.

5 Payload Concept Review (PCR)

The Payload Concept Review (PCR) shall occur at the end of the semester, after the payload design is finalized by the team and is ready for submission to the UAH team for evaluation. The PCR is seen as a “dress rehearsal” for the Final Review. Each team will present to a board of UAH Seniors Design students in Aerospace, Mechanical, Industrial and Systems Engineering.

Payload Concept Review (PCR) Presentation

The PCR presentation shall be presented to the reviewers via online call on the day designated by the UAH instructors. The presentation shall be no more than twenty-five (25) minutes in length and shall cover the following topics. A template is provided on the InSPIRESS website.

1. Your team’s name, slogan, and logo
2. The science objective and instrumentation you have chosen for your payload – this includes the results of the science objective trade study, the science traceability matrix and the instrument and support equipment table
3. The project, functional, and environmental requirements you have imposed on your payload.
4. The alternative payload designs that you have created, highlighting the compliance with the project, science, functional, and environmental requirements
5. The Concept Selection Trade Study you have performed and the “chosen” alternative
6. The engineering analysis performed to determine, at a minimum, the initial conditions of your payload before deployment, the deployment from the UAH spacecraft, the trajectory of your payload after deployment, the ending conditions of your payload, and the number of batteries required for your payload’s mission.
7. The final design including a mass table by function.
8. A summary of your ACEs and Online Outreach, with descriptions, photos, and preliminary analytics data.

When submitting the PCR presentation to UAH, please use the following file naming convention: Highschool_Team#_PCR.

6 Payload Concept Proposal (PCP)

Your team’s proposal shall provide the UAH team an overview of the process of developing and designing your proposed payload. A template is provided on the InSPIRESS Canvas Page. The PCP shall contain no more than 8 pages of content, with an additional page for the title. The title page shall have at a minimum the team name, team number, team slogan, team logo, and the high school name. The proposal shall cover the following topics:

1. Your team’s name, slogan, and logo
2. The science objective and instrumentation you have chosen for your payload – this includes the results of the science trade study, the science traceability matrix and the instrument and support equipment



3. The project, functional, and environmental requirements you have imposed on your payload.
4. The alternative payload designs that you have created, highlighting the compliance with the project, science, functional, and environmental requirements
5. The Concept Selection Trade Study you have performed and the “chosen” alternative
6. The engineering analysis performed to determine, at a minimum, the initial conditions of your payload before deployment, the deployment from the UAH spacecraft, the trajectory of your payload after deployment, the ending conditions of your payload, and the amount of batteries required for your payload’s mission.
7. The final design including a mass table by function.

When submitting the proposal to UAH, please use the following file naming convention: Highschool_Team#_Proposal.

The proposal is then submitted to the UAH team to be reviewed. The final document shall be submitted no later than **Wednesday, April 10th, 2024** via the InSPIRESS website. **IF the proposal is not submitted by April 10th, 2024, the team MAY BE DISQUALIFIED from the competition.**

7 Outreach

As engineers and scientists, it is important to invest in the future of STEM (science, technology, engineering, and math) through community engagement. This semester, the team will make said investments through educational activities (ACEs) as well as Online Outreach via social media.

Designing and conducting outreach is considered part of the design challenge of InSPIRESS. Therefore, the content and delivery method (activities and events/post types and platforms) is to be determined by the team in collaboration with the teacher.

For outreach posts to be successful, they must reach outside visitors (anyone not in the class or currently in InSPIRESS). It must relate back to the mission and/or payload concept and must present visitors with new information or present information in a new and interesting way. The team is responsible for conducting **a minimum of four ACEs which relate to their mission** in addition to maintaining and updating their profiles/posts throughout the semester.

Activities for Community Engagement (ACE)

Activities for Community Engagement are hands-on activities that are conducted with a community audience in order to explain concepts related to the team’s mission and raise excitement for Science, Technology, Engineering, and Mathematics (STEM). Teams should work to make these activities hands-on and engaging for their audience. In order to aim the team in the right direction, there is a provided list of ACE concepts. The team is expected to expand upon these concepts with their insight and ideas to create a fully fleshed out educational activity.



Additionally, there is no given date or location for ACE events - these will be determined between the team and teacher (but please note that ACE events must be completed within sufficient time to complete ACE reporting requirements).

Online Outreach

Online Outreach allows teams to share details of their project with an audience they could not reach otherwise. Throughout the semester, teams will maintain an online presence and make regular posts that aim to educate and raise excitement for STEM. Like ACE, there is a design component to Online Outreach. With approval from the teacher, teams will decide on what online platforms to use, posting type, posting schedule, etc.

Online Outreach Evaluations

The content and quality of each team's Online Outreach is evaluated via the Online Outreach Evaluation. This is an online form in which teams will provide links to posts which meet each evaluation criteria. The combination of all profiles and posts should meet each of the criteria as outlined in Table 4 and show a consistent effort throughout the semester (frequently updated, responding to comments, if any, engaging with the audience, etc.) This is not a formal presentation, rather the review board will give scores based entirely on the content of your team's profiles. The Online Outreach Evaluation Form is to be turned in no later than **Friday, April 26th, 2024**. Failure to do so may lead to **DISQUALIFICATION** from the competition.

Monthly Analytics Reports (MAR)

In order to understand the reach of each team's Online Outreach and gather demographics of their audience, each team must complete Monthly Analytics Reports (MARs). For MARs, teams will access the analytics and demographics information from each of their online profiles and provide screenshots via an online form. As many platforms record this data up to 30 days, teams will submit a MAR at the end of each full month of the competition. The MAR due dates are the following:

Table 2. Monthly Analytics Report due dates

| MAR Number | Due Date |
|------------|--|
| MAR #1 | Thursday, February 29 th , 2024 |
| MAR #2 | Friday, March 20 th , 2024 |
| MAR #3 | Monday, April 29 th , 2024 |

Summary of Online Outreach

A summary of the team's ACEs and Online Outreach shall be included in the Payload Concept Review (PCR) and the Final Review (FR). These summaries shall include a brief description topic covered, activities performed, audience interactions, summary of online analytics data, and any takeaways the Outreach Group has.



8 Open House Poster Session (OH)

The Open House Poster Session is an opportunity for teams to communicate information and images of their project in a community-wide event located on the campus of UAH. This event shall occur at a UAH on **May 3rd, 2024** from 9:00-12:00 (CT). It is a time for the teams to present their projects in a more relaxed and conversational manner. Each team receives an easel for a poster, a 6-foot table to display items, and Wi-Fi. Rules for the poster as well as what can be brought to the review are located below.

1. Poster – the team shall have a poster at the review. The poster is considered an informative poster designed to convey information regarding your design and outreach. At a minimum, the following is required on the poster.
 - a. Team Name
 - b. Team Logo
 - c. High School Name/Logo
 - d. Description of science objective
 - e. Image and description of your payload design
 - f. ACE(s) Descriptions and pictures
 - g. Online outreach summary and pictures
 - h. Summary of online analytics

The poster shall be 24 inches by 36 inches, in either portrait or landscape orientation. The poster will be printed by UAH. The poster shall be submitted to UAH via the InSPIRESS website by **Friday, April 26th 2024** to ensure adequate time for printing. **If the poster is not submitted by Friday, April 26th the poster must be printed with the team's resources.** When submitting the poster to UAH, please use the following file naming convention: Highschool_Team#_Poster.

2. Table – a 6-foot table is provided for each team at the review. All other items brought for the Open House Poster Session must fit on this table. No other space is provided for items. This table can be used to show some example(s) of the ACE events conducted, models of the payload design, or whatever materials help to explain your project to the reviewers. NO marketing materials (pens, cups, food, etc.) are allowed. NO electrical power is provided.

9 Final Review (FR)

The final review shall be conducted on **Friday, May 3rd, 2024 from 9:00am – 12:00pm (CST)** on the UAH campus. The purpose of the review is for each high school team to present their proposed payload concept as well as a summary of their Outreach efforts to a board of engineers and scientists from the local aerospace community. There will be a twenty-five (25) minute presentation to the board followed by a ten (10) minute Q&A session. The Final Review (FR) presentation shall be submitted to UAH via the InSPIRESS website by **Monday, April 29th, 2024. Failure to submit this presentation may be grounds for dismissal from the review.**

10 Competition Evaluation

The InSPIRESS Competition is comprised of five components: Monthly Analytics Reports (MARs), the Payload Concept Proposal, the Online Outreach Evaluation, Open House Poster Session & the Final Review presentation. Table 3 outlines the points attributed to each part of the competition.

Table 3. Competition Evaluation Components

| Component | Maximum Points | Audience | Due Date |
|----------------------------------|----------------|---------------------------|-------------------------------|
| Monthly Analytics Reports (MARs) | 3 | Numerical | End of each month (Feb-April) |
| Payload Concept Proposal (PCP) | 20 | UAH Senior Students | April 10, 2024 |
| Online Outreach Evaluation (OOE) | 7 | UAH Board | April 26, 2024 |
| Open House Poster Session (OH) | 20 | Professional Review Board | April 26, 2024 |
| Final Review Presentation (FR) | 50 | Professional Review Board | April 29, 2024 |

As shown in Table 3, a different audience evaluates each component of the score. The MARs are numerically scored, meaning the teams earn points with each submission.

The UAH Senior Design students shall review the Payload Concept Proposals from the high school teams. Each UAH Senior Student shall score the proposals using the scale excellent, very good, good, fair, and poor on the criteria provided in Table 5.

For the Online Outreach Evaluation, a UAH board shall assess each team’s Online Outreach using the scale excellent, very good, good, fair, and poor on the criteria outlined in Table 4.

For the Open House Poster Session, external evaluators from local industry and government shall assess each high school team’s payload and outreach using the scale excellent, very good, good, fair, and poor on the criteria outlined in Table 6.

The Final Review board shall review the twenty-five (25) minute presentation given by each team followed by a ten (10) minute Q&A session. Each review board member shall score the presentation using the scale excellent, very good, good, fair, and poor based on the criteria provided in Table 7.

Table 4. Online Outreach Evaluation: Criteria and Scoring (7 Points Total)

| Component (Points) | Criteria | Explanation |
|----------------------------|----------------------|---|
| Posting Content (4 points) | Project Introduction | Are there post(s) introducing the team including name, members, logo, and slogan? Are there post(s) introducing the mission (InSPIRESS as a whole, and the VORTEX Mission)? Are there post(s) describing the destination? |
| | Science Objective | Are there post(s) describing the science objective? Are there posts(s) describing the process of selecting the team's science objective? Are there informational posts relating to the science objective in general? |
| | Payload Design | Are there post(s) describing the process of designing a payload? Does the team post design process updates? Are there post(s) explaining the team's selected instruments and how they work? |
| | ACE Updates | Are there posts describing each of the ACEs the team conducted? Does the team provide pictures of the activities? Does the team describe the activities learning objectives and ties to the overall mission? |
| Posting Effort (3 points) | Post Types | Does the team use multiple platforms to inform their audience? Does the team use multiple post types (text posts, infographics, videos)? Does the team create original posts which convey information in a way that is easily understood by the general public? |
| | Updates | Does the team post on a regular basis? Does the team post progress updates? |
| | Wow/Fun Factor | Did the team show creativity in creating their posts? Did the team “make it their own” via design, additional info, multiple platforms, or fun posts? |

Table 5. PCP - UAH IPT Judging Criteria (20 Points Total)

| Proposal Section (Points) | Explanation |
|--|---|
| Title Page (1 Point) | Does the title page have a team name, number, logo, slogan, and high school? Does it look neat and professionally done? |
| Introduction (2 Points) | Does the introduction “introduce” you to the team and payload concept? Is there a team name and slogan given? Is there a payload concept name given? Do you understand what the mission is that the payload is a part of? |
| Science Objective and Instrumentation (2 Points) | Do you understand the science objective? Does the trade study used to select the science objective easily understood? Is the science traceability and the instrument requirements table complete? |
| Payload Design Requirements (2 Points) | Are the payload design requirements explained adequately? Have they explained the functional, environmental, and project requirements? |
| Payload Alternatives (2 Points) | Were at least two concepts presented? Were the key features of each described? Was a figure included of each concept? |
| Concept Selection Trade Study and Material Selection Trade Study (2 Points) | Was the method for the concept/material selection trade study adequately explained? Did the team use the trade study technique correctly? Do their weightings make sense? |
| Payload Concept of Operations (2 Points) | Did the team describe the payload concept of operations from when the spacecraft says “go”? Do you understand how this payload functions? |
| Engineering Analysis (2 Points) | Did the team provide the calculations for (at a minimum): initial conditions, deployment from the UAH vehicle, their payload’s trajectory, ending conditions, and the required battery mass? |
| Final Design (2 Points) | Did the team provide adequate details for the final payload design? Did they provide reasons for the changes from the preliminary to the final design? Did they provide a figure that depicts the design? Is the Final Design Mass Table complete? Is the risk matrix complete? |
| Request for Payload Compliance (2 Points) | Is the proposal 8 pages (or less) of content, with an additional title page? Are there 1-inch margins on all sides for the entire document? Is the main text no smaller than Times New Roman 11 pt. font? Are the table and figure captions no smaller than Times New Roman 8 pt. font? |
| Technical Writing (1 Point) | Does the proposal flow? Does it tell a story? |

Open House Poster Session: Criteria and Scoring (20 Points Total)

| Component (Points) | Criteria | Explanation |
|---------------------------------------|-------------------------|---|
| Poster (3 Points) | Requirements | Does the poster have the Team Name, Team Logo, High School Name/Logo, Figure of the Proposed Payload, Summary of Online Outreach, Online Outreach analytics, ACE(s) Description, and ACE(s) pictures on it? |
| | Organization | Is the poster organized? Does the flow of information make sense? Is it too cluttered or just right? Is the poster visually pleasing? |
| | Information Understood | Is the information presented on the poster easily understood? Can you follow what the team did without their explanation? |
| Science and Payload Design (4 Points) | Explanation of Science | Did the team effectively explain their science objective(s)? Did they explain what specifically they want to measure? Do you understand why the team chose their objective(s)? |
| | Payload Design | Did the team adequately explain their payload design? Do you understand how the payload functions and how it achieves the science objective? Did the team provide images to help you understand what their payload looks like and how it functions? |
| Outreach (4 Points) | Explanation of ACE(s) | Are the ACE(s) adequately explained? Does the ACE seem to fit with their science objective? Do you understand the “point” (learning objectives) of the ACE(s)? |
| | Online Outreach | Did the team show effort in their planning and execution of online outreach? Did the team provide their online audience with meaningful information? |
| Team Presentation (6 Points) | Interaction with Judges | Did the team engage you in discussions? Did they answer your questions appropriately? |
| | Appropriate Attire | Was the team appropriately dressed for this review? Did they seem professional in their appearance? |
| | Team Integration | Did the team seem integrated? Did multiple students engage you when you approached? |
| Overall Impression (3 Points) | Judge’s Discretion | Did the team have a “wow factor”? Did the team stick out in the judge’s mind? Did the team go above and beyond in one or more categories, more so than other teams? Each judge has 3 points which they can award as they see fit (all three points to one team, one point to three different teams, etc.) |

Final Review Board Judging Criteria (50 Points Total)

| Presentation Component (Points) | Template Slides | Explanation |
|--|--|---|
| Presentation Introduction (2 Points) | <ul style="list-style-type: none"> Title Team Team Identity | <ul style="list-style-type: none"> Is the title slide pleasing? Does it have the team name, logo and the high school name on it? Did the team get introduced? Did the team provide their logo and slogan? Did they adequately describe the logo and slogan and how it relates to the science objective? |
| UAH Baseline Mission (1 Points) | <ul style="list-style-type: none"> UAH Baseline Mission | <ul style="list-style-type: none"> Did the team describe the UAH mission and how they complement the mission? |
| Science Objective and Instrumentation (4 Points) | <ul style="list-style-type: none"> Potential Science Objectives Science Objective Trade Study Science Objective Chosen Science Traceability Matrix Instrument Requirements Support Equipment | <ul style="list-style-type: none"> Do you understand the science objective? Is the trade study used to select the science objective easily understood? Is the science traceability complete? Was it adequately explained? Is the instrument requirements table complete? Was it adequately explained? Is the support equipment table complete? Was it adequately explained? |
| Payload Design Requirements (2 Points) | <ul style="list-style-type: none"> Payload Design Requirements Payload Destination | <ul style="list-style-type: none"> Are the payload design requirements explained adequately? Have they explained the functional, environmental, and project requirements? Is the payload's destination easily identifiable? Did the team describe the environment at the destination? |

| | | |
|---|--|--|
| Alternative Concepts (5 Points) | <ul style="list-style-type: none"> • Concept slides (multiple) | <ul style="list-style-type: none"> • Were at least two concepts presented? Were the key features of each described? Was a figure included of each concept? |
| Concept and Material Selection Trade Study (5 points) | <ul style="list-style-type: none"> • Concept Selection TS • Material Selection TS • Chosen Alternative | <ul style="list-style-type: none"> • Was the method for the trade studies adequately explained? Did the team use the trade study technique correctly? Do their weightings make sense? |
| Payload Concept of Operations (2 Points) | <ul style="list-style-type: none"> • Payload Concept of Operations | <ul style="list-style-type: none"> • Did the team describe the payload concept of operations from when the spacecraft says “go”? Do you understand how this payload functions? |
| Engineering Analysis (8 Points) | <ul style="list-style-type: none"> • Engineering Analysis: Initial Conditions • Engineering Analysis: Deployment • Engineering Analysis: Trajectory • Engineering Analysis: Ending Conditions • Engineering Analysis: Batteries | <ul style="list-style-type: none"> • Is the engineering analysis easily understood? • Did the team provide the calculations for (at a minimum): initial conditions, deployment from the UAH vehicle, their payload’s trajectory, ending conditions, and the required battery mass? • Did the team do the correct sequence of calculations for their engineering analysis? |
| Final Design (3 Points) | <ul style="list-style-type: none"> • Final Design • The Team’s Mission • Mass Table • Requirements Compliance • Risk Analysis | <ul style="list-style-type: none"> • Did the team provide sufficient detail to understand their proposed mission? Did they provide details for the changes from preliminary to final design? • Did the team provide a mass table that outlines the mass breakdown by function? Does it make sense? |

| | | |
|--|---|--|
| | | <ul style="list-style-type: none"> • Did the team provide the requirements compliance table and describe how they showed compliance? • Did the team provide the risk analysis table? Did they explain how they performed the analysis? |
| Activities for Community Engagement Summary (5 points) | <ul style="list-style-type: none"> • ACE Summary Slides | <ul style="list-style-type: none"> • Does the team adequately explain each of their ACEs? Do they explain each activity's learning objectives and ties to the overall mission? Do they provide audience size and grade level? Do they provide pictures for each of their activities? |
| Online Outreach Summary (5 Points) | <ul style="list-style-type: none"> • Online Outreach Summary | <ul style="list-style-type: none"> • Does the team adequately explain the content of their Online Outreach? Do they explain the tie between the posts and their mission? • Does the team explain the platforms they used to conduct their outreach? Do they provide their plan for reaching their audience? • Does the team provide a summary of their audience analytics data? |
| Lessons Learned (3 Points) | <ul style="list-style-type: none"> • Lessons Learned | <ul style="list-style-type: none"> • Did the team explain what they learned from the project, what was unexpected and what they would do differently next time? |
| Summary (2 Points) | <ul style="list-style-type: none"> • Summary | <ul style="list-style-type: none"> • Did the team summarize the design and provide the details of the payload design? • Did the team summarize their Online Outreach? |
| Slides (1 Point) | | <ul style="list-style-type: none"> • Are the slides graphically pleasing? Are they too cluttered? |
| Overall Presentation (1 Point) | | <ul style="list-style-type: none"> • Does the presentation tell a story? Is it understandable? Did the team members answer questions appropriately? |
| Overall Impression (1 Point) | | <ul style="list-style-type: none"> • What's your overall impression of the team's presentation? Did they seem engaged? Were they dressed appropriately? |

Table 8: Summary of InSPIRESS Deliverables and Reviews

| Name | Pts | Type | Description | Submit By | Evaluated On | Evaluated By | Consequence for Omission |
|---------------------------------|-----|--------------|---|--|--|---------------------------------|--|
| Payload Concept Review (PCR) | N/A | Presentation | 25-minute presentation, 10 min discussion, practice for FR | 5pm, day prior to PCR | Week 12 | UAH IPT Students and professors | Lost practice, experience, and information. Angry teacher. |
| Monthly Analytics Reports (MAR) | 3 | Online Form | Screenshots of analytics pages from profiles | Feb 29 th Mar 29 th April 29 th | Feb 29 th Mar 29 th April 29 th | Numerical | Loss of 1 point per MAR |
| Payload Concept Proposal (PCP) | 20 | Document | 8 pages content maximum, plus title page | April 10 th | April 11 th – 23 rd | UAH IPT Students | Possible disqualification from entire competition |
| Open House Poster Session (OH) | 20 | Poster | 36x24 or 24x36 poster (ppt or pub, for example) | April 26 th | May 3 rd | Local professionals | Disqualified from OH |
| Online Outreach Evaluation | 7 | Online Form | Links to each of the social media profiles used to conduct outreach | April 26 th | April 20 th – 24 th | UAH Board | Possible disqualification from entire competition |
| Final Review (FR) | 50 | Presentation | 25-minute presentation, 10 min discussion | April 29 th | May 3 rd | Local professionals | Disqualification from Final Review |

Acceptable formats:

- Document: Microsoft Word or PDF
- Presentation: Microsoft PowerPoint or PDF
- Poster: Microsoft PowerPoint, Publisher, PDF, or image format (jpeg, png, tif)