

**Wisconsin Space Grant Consortium**  
**2023 Spring Advisory Council Meeting**  
**Student Satellite Initiative Report – William Farrow, MSOE**  
Friday, Apr 14, 2023 (Lawrence University)

## 1. UAD Undergraduate Aerospace Design Project

- What: Expose early career engineering and science students to hands-on aerospace experience, that requires forming a cohesive team responsible for the design, build, test and execution of a science payload on a robotic platform.
- Who: Opportunity for six **(6) students** early in their academic programs.
- Obligation: 10-week summer internship. The team will present its results at the WSGC's Wisconsin Space Conference.
- Stipend: Housing in MSOE dorm and
- 1 team lead at \$5000, (intended to recruit an alumnus of the program to assist in aspects of training and project management)
  - 5 team members at \$4000 each.
- 2023 UAD Team members:
    - 4 applicants
    - Not enough applicants to form a cohesive team.

## 2. UAV Unmanned Aerial Vehicle Research

- What: Provides opportunities for undergraduate students to conduct earth-observing experiments using remote sensing technologies and techniques onboard Unmanned Aerial Platforms.
- Who: Opportunity for six **(4) students** early in their academic programs.
- Obligation: 9- week summer internship. The team will present its results at the WSGC's Wisconsin Space Conference.
- Stipend: \$4160 stipend and housing at Lawrence University.
- 2023 UAV Participants:
    - 6 applicants
    - 4 students accepted into the program
    - 3 women
    - Affiliates: Carthage, Lawrence Univ.

## 3. WSGC High Powered Rocketry

### 3.a WSGC 2023 Collegiate Rocket Launch Competition

- What: Student teams are required to design, construct and fly a high-power rocket that would fly to a specific altitude, land and deploy a Ground Excursion Module (GEM rover).  
<https://spacegrant.carthage.edu/funding-programs/undergraduate/rocket-competitions/collegiate/>
- Who: 8 teams comprised of students from WSGC affiliates are currently in the competition.  
**40 students** active in the competition across the 8 affiliate campuses.
- Obligation: Attendance by team representatives is required at a series of information and design review meetings throughout the competition cycle. A design report and presentation are delivered by the team prior to the launch. The winning teams present their results at the WSGC Annual Conference.
- Prizes: Mission Grand Champion (\$3000) – Highest scoring team that successfully completes the mission and all aspects of the competition.  
Second and Third prize – (\$2000 and \$1000 respectively) will be awarded to teams based only on scores.
- Stipend: The WSGC will fund project construction for participating teams with budgets of up to \$1000 each, and will also provide teams with specific hardware
- Important Competition Dates

- Team Presentations, Friday Apr 28<sup>th</sup> at Carthage College
- Competition Flights, Saturday Apr 29<sup>th</sup> at Richard Bong Wisconsin State Rec. Area, Kansasville, WI

- The eight teams competing this year:

<b>Carthage College</b>	<b>Marquette Univ</b>	<b>Milwaukee School of Engr</b>
<b>UW-Green Bay</b>	<b>UW Platteville</b>	<b>UW-River Falls</b>
<b>UW-Green Bay, Sheboygan</b>	<b>UW-Stevens Point</b>	

### 3.b Participation in: 2023 NASA’s Space Grant Midwest High-Power Rocket Competition

What: Student teams are challenged to design and construct a high-power rocket that will perform complex tasks as defined in the competition

Who: Teams comprised of students from regional Space Grant affiliates.  
**5 students** active in the competition from 1 **affiliate campus**.

Obligation: 1 team will be supported by the WSGC to compete in the SG Midwest High-Power Rocket Competition. A judge is to be supplied by each of the states that have teams in the competition.

Stipend: WSGC will support each team with \$2400/team to cover the registration fee and travel to a for all four teams plus the travel for one judge from Wisconsin

- Competition is scheduled for May 13-14, North Branch, MN.
- Team funded by WSGC this year:

<b>Milwaukee School of Engr</b>		
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