



WILLIAM E. BOEING

DEPARTMENT OF AERONAUTICS & ASTRONAUTICS

UNIVERSITY *of* WASHINGTON

2022–2026 A&A Strategic Plan



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We believe that we have a responsibility to prepare students to innovate with collaborative solutions for a more sustainable and just world. As part of the College of Engineering, we are committed to excellence for the public good. For aerospace, we are looking at being better stewards of our societal and environmental systems.

We are starting here in the Department with our efforts to enhance our community and improve in the areas of Justice, Equity, Diversity and Inclusion. We are committed to higher standards and mechanisms for recognition and creating a world that improves life with more efficient transportation, efficiency and solutions for environmental challenges, safer materials, and more. And above all, we strive to create a positive and excellent holistic education for our students.



Our Vision

We will catalyze aerospace engineering education and research to innovate collaborative solutions for a more sustainable and just world.



Our Values

We promote excellence in education, research and service.

We are committed to a welcoming culture that actively promotes the academic, professional and personal well-being of all members of the community regardless of individual background.

We apply standards and expectations equitably to all members of our community.

We practice respectful, ethical conduct at all times.

We practice the highest standards of safety in all activities and spaces.

We recognize, respect and defend the dignity of all members of our community.

We remove barriers and practice behavior to ensure the academic, professional and personal well-being of all members of our community.

Excellence
Diversity
Equity
Inclusion
Collaboration
Innovation
Integrity
Community



Pillars

Holistic Education

Strengthen content, structure and access of curricular and extracurricular opportunities that foster technical and professional skills and advance innovations.

Research

Define and invest in our research identity in terms of scholarship and creative activity in alignment with next generation aerospace.

Community

Build our culture to create a community that inspires and empowers us.

DEI Integration

Operationalizing diversity, equity and inclusion as a sustained effort with ongoing assessment and strategic focus in each Pillar.



Other Integrated Themes

A&A will work with the upcoming College of Engineering guidance on these additional three crosscut themes.

Creating a healthier and more just world through our work.

- Focusing on high-impact interdisciplinary research and incentivizing collaborations that serve the public good.
- Curriculum grounded in technical excellence.
- Translation of discoveries into application.

Translating innovation into impact

- Expand cross-disciplinary collaboration
- Grow opportunities for students and researchers to engage in social and commercial entrepreneurship
- Deepen our industry partnerships.

Investing strategically in our future

- Strengthen our financial foundation and physical infrastructure
- Raise our visibility and enhance our brand
- Invest in our staff's well-being and professional development
- Increase operational efficiencies through data-driven assessment.



HOLISTIC EDUCATION

Effective content in, structure of, and access to curricular and extracurricular opportunities that foster technical and professional skills and advance innovations.

STRATEGIES

- **Enhance our curriculum and extracurriculars with additional new A&A offerings and established offerings from other departments.**
- **Engagement with pre-A&A students to introduce aerospace engineering and department research.**
- **Active alumni and industry network to prepare students for technical careers.**

A long-exposure photograph of a starry night sky, showing curved light trails from stars. The trails are predominantly white and blue, set against a dark blue background. The bottom of the image shows the dark silhouettes of trees and a mountain range.

HOLISTIC EDUCATION

Effective content in, structure of, and access to curricular and extracurricular opportunities that foster technical and professional skills and advance innovations.

STRATEGY 1

Enhance our curriculum and extracurriculars with additional new A&A offerings and established offerings from other departments.

FIVE-YEAR GOALS (Pending analysis by UG committee)

- BS curriculum with strength in fundamentals and flexibility for emerging areas of innovation
- BS: 95% career placement at graduation
- MS: 95% career placement at graduation
- BS: 2 internships/REU experiences before senior year
- Annual graduate program student data analysis
- Strong mentoring program for PhD students with feedback mechanisms throughout doctoral program
- Strong student onboarding and ongoing engagement with frequent, informal exchanges
- Bridge to MS program with at least 10 students directed toward A&A MS/MAE per year
- Formal professional development program for all students
- Increase continuing education offerings



HOLISTIC EDUCATION

Effective content in, structure of, and access to curricular and extracurricular opportunities that foster technical and professional skills and advance innovations.

STRATEGY 2

Engagement with pre-A&A students to introduce aerospace engineering and department research.

FIVE-YEAR GOAL

- **Formal integration of sophomores into department curriculum including potential transfer students**



HOLISTIC EDUCATION

Effective content in, structure of, and access to curricular and extracurricular opportunities that foster technical and professional skills and advance innovations.

STRATEGY 3

Active alumni and industry network to prepare students for technical careers.

FIVE-YEAR GOAL

- Intentional industry engagement program at all degree levels

RESEARCH

Define and invest in our research identity in terms of scholarship and creative activity in alignment with next generation aerospace.

STRATEGIES

- **Clearly defined goals and values for excellence in research**
- **Active partnership planning and matching**
- **Strong system for research recognition**

RESEARCH

Define and invest in our research identity in terms of scholarship and creative activity in alignment with next generation aerospace.

STRATEGY 1

Clearly defined goals and values for excellence in research

FIVE-YEAR GOALS

- 5 yr hiring plan updated annually
- Clear definition of Department's research values incorporated into merit review
- At least 75% of MS students engaged in research
- At least 50% of BS students engaging in at least one research quarter
- Graduate 0.75 PhDs per faculty member per year
- Regular achievement of awards by current / graduating students at all levels

RESEARCH

Define and invest in our research identity in terms of scholarship and creative activity in alignment with next generation aerospace.

STRATEGY 2

Active partnership planning and matching

FIVE-YEAR GOALS

- Average annual RCR units of 2 per PI
- At least 30% of RCR coming from industry on average
- Strong faculty research mentoring program including research and collaboration exchanges among junior and senior faculty
- Strong mentoring program for MS and PhD students with feedback mechanisms throughout degree program
- Strong student onboarding and ongoing engagement with frequent, informal research and collaboration exchanges
- Technology taxonomy assessment for A&A, UW, WA to inform partnerships

RESEARCH

Define and invest in our research identity in terms of scholarship and creative activity in alignment with next generation aerospace.

STRATEGY 3

Strong system for research recognition

FIVE-YEAR GOALS

- Research awards program for faculty based on research values (complementing student awards)
- Annual series of formal and informal events and presentations to share research and promote attendance and exchange of ideas

COMMUNITY

**Build our culture to create a community
that inspires and empowers us.**

STRATEGIES

- **Foster a **caring** department community where we support each member and all feel a sense of belonging**
- **Establish a **just** departmental process that honors our contributors with a holistic strategy of diversity, equity and inclusion**
- ****Celebrate** and affirm our department legacy, advances, and shared accomplishments**
- **Encourage a culture of **openness** where we protect free speech and affirm working collaboratively**
- **Develop a **disciplined** department where we accept our obligations to the group and governance norms to guide behavior for the common good**

COMMUNITY

Build our culture to create a community that inspires and empowers us.

STRATEGY 1

Foster a **caring department community where we support each member and all feel a sense of belonging.**

FIVE-YEAR GOALS

- Peer mentoring program for all levels
- Improve the current onboarding process for all groups (students, staff, faculty)
- Expand mentorship and ideas exchange in our community in formal and informal ways
- Develop a communications plan for timely response to community, campus, and national issues
- A clear approach to welcoming all new members to the department so that they feel supported and our values are understood and internalized
- Enhance the well-being and professional development of all members of our community (specifics will be needed)

COMMUNITY

Build our culture to create a community that inspires and empowers us.

STRATEGY 2

Establish a **just departmental process that honors our contributors with a holistic strategy of diversity, equity and inclusion.**

FIVE-YEAR GOALS

- All community members engaged with annual DEI discussions
- 25-50% increase in all diversity metrics of faculty, staff, students
- Building connections between faculty and broader community (industry and community groups connected with impact)
- Grow the breadth of communities that are positively impacted by and interact with our community by supporting and rewarding efforts in this area
- Acknowledge great examples of governance and the stewardship of department improvements
- Equity in publicity/acknowledgement (break down into faculty, staff, and student considerations)
- Broader acknowledgement of diverse backgrounds and accomplishments of our community members
- Continue to increase transparency of department processes to promote fairness and understanding of resource allocation (break down into faculty, staff, and student issues)



COMMUNITY

**Build our culture to create a community
that inspires and empowers us.**

STRATEGY 3

**Celebrate and affirm our department legacy, advances,
and shared accomplishments.**

FIVE-YEAR GOALS

- Grow inspirational programs: Stronger partners and ties of research to applications broader community can recognize
- Feature department history/heritage/legacy on our website and department displays
- Develop a slate of light-hearted events that celebrate our department, our work, our values and each other
- Public celebration of successes at all levels of the department

COMMUNITY

Build our culture to create a community that inspires and empowers us.

STRATEGY 4

Encourage a culture of **openness where we protect free speech and affirm working collaboratively.**

FIVE-YEAR GOALS

- Internalize a process of committee/meeting guidelines for interaction - the atmosphere we want with each other, how we ensure we thrive, and how we have difficult conversations
- Set up or clarify processes by which issues that affect sections of our population can be raised and addressed, especially for those that may not feel the agency to speak up
- Use transparent, understandable and data-driven analytics to assess and improve the College's performance and align incentives with our priorities. Align incentives with our strategic priorities and community building (COE goal)

COMMUNITY

Build our culture to create a community that inspires and empowers us.

STRATEGY 5

Develop a **disciplined department where we accept our obligations to the group and governance norms to guide behavior for the common good.**

FIVE-YEAR GOALS

- All members of our department remember and internalize our values in everything we do
- Improve the interfaces between departmental groups to build understanding of everyone's role and expectations and foster empathy
- Elevate the role of RSOs within the department for both social and career development
- Elevate the experiences and sense of belonging of students in the research lab community

DEI

**Operationalizing diversity, equity and inclusion
as a sustained effort with ongoing assessment
and strategic focus in each Pillar.**

STRATEGIES

- **Attract, recruit, select and retain diverse students, faculty and staff**
- **Develop structures, practices and people skills that embed and leverage the value of DEI in all department activities**
- **Build a robust department community culture where all members thrive, are valued and feel a sense of belonging**

DEI

**Operationalizing diversity, equity and inclusion
as a sustained effort with ongoing assessment
and strategic focus in each Pillar.**

STRATEGY 1

Attract, recruit, select and retain diverse students, faculty and staff

FIVE-YEAR GOALS

- Establish ARSR (attract, recruit, select and retain) goals and best practices for underrepresented groups and/or specific dimensions of diversity. Review ARSR systems with diversity, equity and inclusion (DEI) and intercultural competency lenses
- Increase our transparency by coordinating with the College on a diversity data collection to document, evaluate and share our recruitment and retention efforts

DEI

Operationalizing diversity, equity and inclusion as a sustained effort with ongoing assessment and strategic focus in each Pillar.

STRATEGY 2

Develop structures, practices and people skills that embed and leverage the value of DEI in all department activities.

FIVE-YEAR GOALS

- Develop and actualize an integrated DEI structure to increase communication and collaboration programs and plans for leaders and staff
- Engage with the College's plan for a DEI leadership training and development program to enhance knowledge and skills to facilitate organizational change
- Leverage the College's intercultural development manager's training program and integrate intercultural development in our curriculum and orientation programs
- Develop and implement a Department-wide DEI communications plan
- Recognize, amplify and reward DEI and social good leadership in the Department
- Participate in College sustainable Inclusive Excellence (IE) Fellowship program for faculty and graduate students to spend one quarter with the OIE learning how to integrate DEI into curriculum. Coordinate with WASG fellows

DEI

**Operationalizing diversity, equity and inclusion
as a sustained effort with ongoing assessment
and strategic focus in each Pillar.**

STRATEGY 3

**Build a robust department community culture where all members
thrive, are valued and feel a sense of belonging.**

FIVE-YEAR GOALS

- Increase dialogue and shared understanding around DEI through systems to increase awareness, prevention, reporting, response and resolution of bias and harassment incidents
- Identify, highlight, support and develop best practices on welcoming and supporting underserved or underrepresented faculty, staff and students
- Develop and put into action specific measures to acknowledge and support sovereignty and increase collaboration with tribal communities
- Deepen and expand practices that increase the voice and involvement of underserved or underrepresented groups in decision-making processes
- Prioritize the health and wellness of all our students, staff and faculty by listening, offering information and resources, creating flexibility when needed and ensuring no one feels they must choose between health and productivity



**View our [🔗 dashboard](#) to see
our planned actions and
progress.**