

UAS operations Technician Education Program (UASTEP)

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Mission

*Educate tomorrow's drone
entrepreneurs and drone professionals*

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National Science Foundation's

UAS Operations Technician Education Program (UASTEP)

- 1. Program and Curriculum Development*
- 2. Professional Development Workshops for Educators*
- 3. Strengthening Students' Business and Workplace Competencies*
- 4. Public Outreach and Student Summer Camps*

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National Science Foundation's

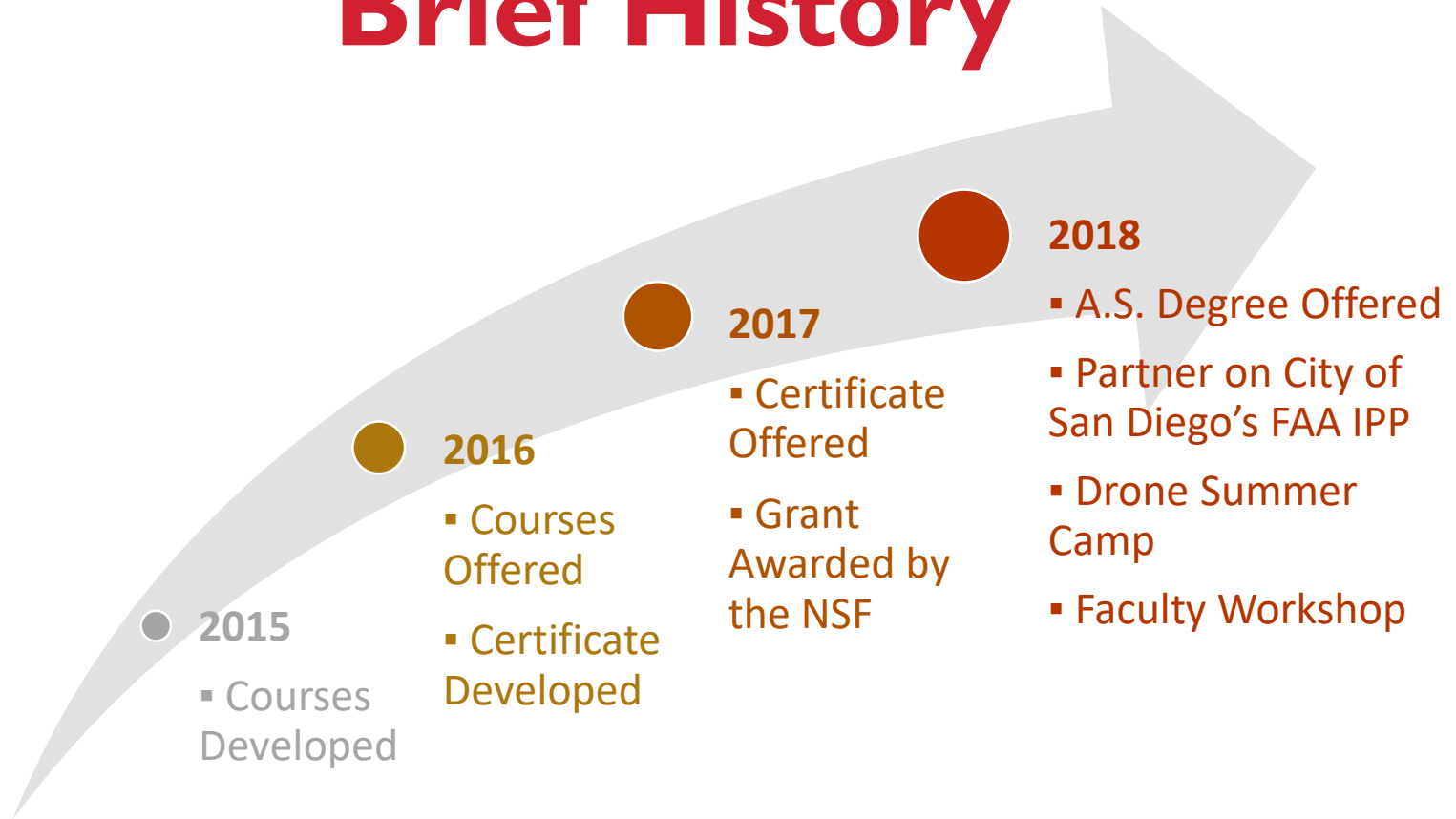
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Brief History



Certificate of Achievement

www.palomar.edu/gis/uav

- *Two semesters*
- *Six courses*
- *Focus*
 - *Drones for mapping and videography*
 - *Data analysis and processing*
 - *Certificate and licensing*
 - *Service learning projects*

Associate's Degree

www.palomar.edu/gis/uav

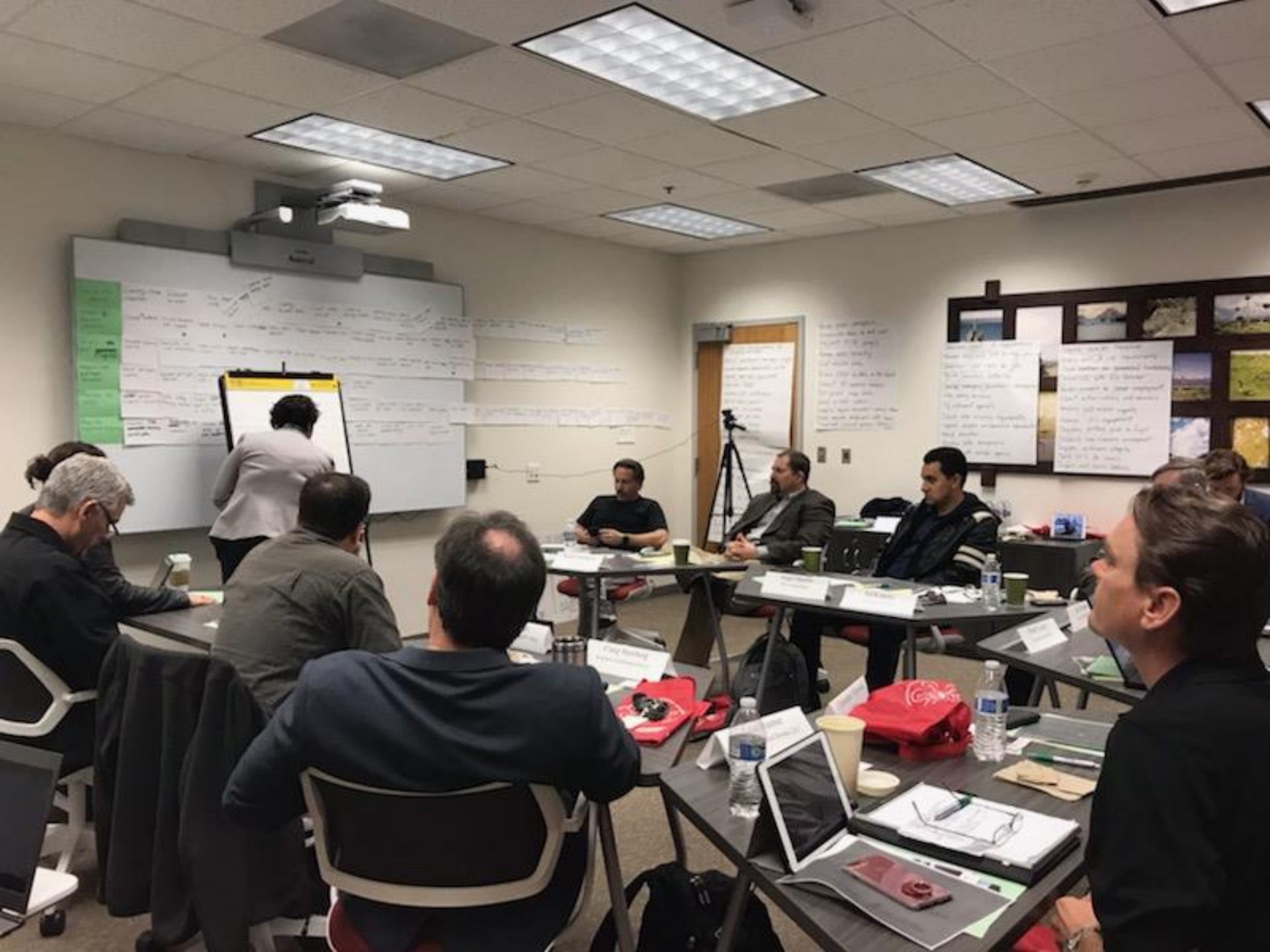
- *Four semesters*
- *Ten courses + GE courses*
- *Focus*
 - *Drones for mapping and videography*
 - *Data analysis and processing*
 - *Certificate and licensing*
 - *Service learning projects*
 - *Internship*
 - *Entrepreneurship*
 - *Pick two electives: engineering, marketing, LiDAR, veterans, more...*



Goal

*Strengthening Business and Workplace
Competencies*

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DACUM

- *Developing a Curriculum (DACUM) focus group (3/8/19-3/9/19)*
- *12 industry professionals*
 - *Archaeology*
 - *Construction, Inspection, Utilities*
 - *Defense*
 - *GIS and Surveying*
 - *Law Enforcement*
- *“...capture the major duties, tasks, knowledge, skills, traits, tools, and related information for a specific occupation.”*

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DACUM

- *Six major duties:*
 1. *Plan the UAS Operation*
 2. *Prepare for the UAS Operation*
 3. *Perform the UAS Flights*
 4. *Perform UAS Post-flight Procedures*
 5. *Maintain the UAS*
 6. *Maintain Professional Proficiency*

DACUM

- *Tasks within each of the six major duties*
 1. *Plan the UAS Operation*
 - *Interpret airspace*
 - *Plan flight route*
 - *Identify mission accuracy needs (such as GCPs)*
 - *Develop emergency contingency plan*
 - *Many more...*
- *Future trends, general knowledge, and skills*
- *See the entire DACUM chart at <http://bit.ly/uasdacum>*



Goal

Public Outreach and Student Summer Camps

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Summer Camp

- *Six day conservation-focused service learning summer camp with the Escondido Creek Conservancy*
 1. *UAS safety and regulations*
 2. *UAS sensors and applications*
 3. *Manual and autonomous UAS operations*
 4. *Field data collection*
 5. *Data processing and GIS analysis*
 6. *Presentation*



Summer Camp

- *Highlights*
 - 100% of participants reported knowing more about **drone careers** and **drone applications** in different industries
 - 89% of participants reported greater interest in **drone careers**
- “To be honest, I knew little to nothing on the subject of geography and geographical data. However, the camp really sparked more interest in the area for me.”
- See presentations at <http://uastep.org/summer-camps/>

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Best Practices

- 1. Connect with other ATE projects and centers*
- 2. Start recruitment as soon as possible*
- 3. Constant communication with community partners*

Related Resources in Directions Magazine

- *What makes a good UAS/Drone Operations Technician?*
<https://www.directionsmag.com/article/8906>
- *What does the FAA Reauthorization Act Mean for Educational and Recreational Flyers?*
<https://www.directionsmag.com/article/8933>

Thank you!

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