

# Inclusive Workforce, Student Talent Pipeline

*THE VALUE OF PERFORMANCE.*

***NORTHROP GRUMMAN***

**Briefing for San Diego & Imperial Counties Community  
College Association (SDICCCA)**

**November 8, 2019**

**Fiona Hamann**  
Public Relations,  
Northrop Grumman  
San Diego Autonomous Design Center of Excellence

# Our Shared Commitment to San Diego

- **WHAT:** Contribute to 20,000 New Skilled Workers in San Diego by 2030.
- **WHY:** To ensure the region's future competitiveness, and support Northrop Grumman's growing business in San Diego, we must double the number of local, STEM-degree holding talent.
- **HOW:**
  - Provide work-based learning opportunities for students in San Diego.
  - Engage these students at multiple touch-points throughout their education to inspire their persistent pursuit of a STEM-based career.
  - Help offset some of the challenges students in under-served, under-represented communities experience when pursuing their education.
  - Provide students a pathway to qualification for careers in the aerospace and defense industries.



# Workforce Planning Strategy

## *Build an Inclusive, Local Student Talent Pipeline*

### To solve for:

- **Competitive innovation economy in SD**
- **Current & anticipated attrition/retirement**
- **Mitigate cost of bringing talent in from out of state**
- **The limited pool of qualified, cleared, diverse talent**

#### **Business Goal**

Grow the local talent pipeline of skilled workers.

#### **Communications Goal**

Raise awareness of Northrop Grumman and engage untapped talent.

#### **Strategy**

Establish a path to qualification for under-served students in under-represented communities in San Diego.

#### **Objective 1: LINK**

Connect existing NGC STEM programs and fill gaps.

#### **Objective 2: EDUCATE**

Educate students about Northrop Grumman careers.

#### **Objective 3: ENGAGE**

Drive talent to engage with Northrop Grumman.

# The Pathway to Qualification

**NGC Program:**  
High School  
Involvement Partnership  
(HIP)

**For:**  
High School Students

**Program Duration:**  
2-years

**Comp Model:**  
School Credit

**Participating School  
Districts:**

- San Diego Unified
- Poway Unified
- Oceanside Unified

Student  
Goes to  
Community  
College

**NGC Program:**  
Community College  
Work-Based Learning

**For:**  
STEM Degree-bound  
Students

**Program Duration:**  
Fall/Spring Semester

**Comp Model:**  
Hourly Wage +  
Internship Credit

**Pilot Colleges:**

- MiraCosta
- Palomar
- San Diego City  
College District

Student  
Graduates w/  
2-yr  
STEM degree

Graduate applies for a  
full-time Asst.  
Engineer/Technician  
position; once gaining  
full-time employee status  
can utilize NGC Ed Assist  
benefit to complete 4-year  
STEM degree

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University student  
participates in summer  
internship program; when  
nearing graduation  
student can apply for a  
full-time position with  
NGC recommendation  
and professional  
reference

Student  
Goes to  
4 yr.  
University

**NGC Program:** University Internship Program  
**For:** Bachelor and Masters STEM/Business students  
**Program Duration:** Summer  
**Comp Model:** Hourly Wage + Internship Credit  
**Participating Schools:** UCSD, SDSU, CSU San Marcos

During  
Jr./Sr. Univ.  
Year

**A student candidate, regardless of age and hiring source, must meet ALL of the below criteria. The candidate must:**

- Be enrolled in a community college and pursuing an Associate degree from an accredited community college with a STEM (science, technology, engineering, mathematics) emphasis such as: math and science, computer programming, mechanical design, engineering technology or computer-aided drafting and design
- Be recommended by a Department Head for the program
- Maintain an overall cumulative GPA of 3.0/4.0 or higher (academic transcripts must be provided at the end of each semester to the NG manager)
- Prepare a personal statement describing their future engineering intentions and articulating why they want to work at Northrop Grumman
- Be available to work part-time (up to 20 hours per week)

# Example Areas of Knowledge

- Physics
  - Principals and/or Advanced
- Math
  - Algebra
  - Calculus
  - Statistics
  - Geometry
  - Trigonometry
- Engineering
  - Mechanical
  - Vehicle
  - Software
- Computer Science / Programming
  - Fundamentals and/or advanced: C++, Python, JAVA, C
- Business, Communications, Economics, Leadership

# Generating Public Awareness & Support

## Northrop Grumman Partners with Local Colleges to Prime Talent Pipeline

By Elise Reuter

Thursday, October 17, 2019

**SAN DIEGO BUSINESS JOURNAL**

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Aerospace and defense giant Northrop Grumman is partnering with two San Diego community colleges to develop programs for future talent.

The company is partnering with MiraCosta College and Palomar College, with plans to launch the pilot phase of the new program in the 2019-2020 school year. The program will provide students with STEM (science, technology, engineering and math) degrees with paid opportunities to learn on the job.

"Establishing a framework to collaborate with education systems is necessary for building a strong local talent pipeline and supports a long-term workforce planning strategy," Northrop Grumman Vice President of Engineering Alfredo Ramirez said in a news release. "Our decision to develop a community college pilot fills a critical gap bridging K-12 and university programming, allowing us to reach and engage students in San Diego throughout their education journey."

For the program's first cohort, a small group of college students were selected to work as part-time engineering assistants and technicians at Northrop Grumman's San Diego Autonomous Design Center of Excellence. They will also earn credit at their respective schools.

Northrop Grumman's effort dovetails with the San Diego Regional Economic Development Corporation's inclusive growth initiative, which set a regional goal of creating 20,000 new jobs by 2030. Headquartered in Falls Church, Virginia, Northrop Grumman has nearly 5,000 employees in San Diego.

## Palomar STEM students start internship at Northrop Grumman

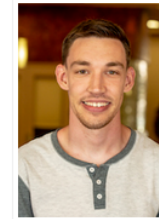


Denise Fernandez and Jacob Zeferino were selected by the aerospace and defense technology company for a new "talent pipeline" program.

**WINDY BREVARD** — For six years, Denise Fernandez attended Palomar College as a military spouse, balancing a growing family and military life (with demanding STEM classes, one a recent Monday morning, all of her hard work began to pay off).

On Oct. 28, the 26-year-old mother of two reported for her first day at Northrop Grumman, a large technology company and defense contractor with several locations situated around Palomar College's Ramona Branch Education Center.

## Groundbreaking program secures MiraCosta College students work-based learning with Northrop Grumman



Matthew Sheehan



Jeannelle Balilo

MiraCosta College student Matthew Sheehan is making history. Sheehan, a 26-year-old Marine Corps veteran, is among the first cohort of students taking part in a groundbreaking Northrop Grumman Corporation-led program offering community college students enrolled in science, technology, engineering, and mathematics (STEM) with paid, work-based learning opportunities and a pathway to qualification for careers in the aerospace and defense industries.

Sheehan, a Temecula resident and computer science major, began working part-time at Northrop Grumman in September as an engineering assistant/technician, putting his software skills to use automating various testing procedures with a team assigned to high-altitude, autonomous aircraft.

"I'm getting relevant experience and a foot in the door, and the fact that I will be able to put the Northrop Grumman name on my resume is pretty valuable in and of itself," Sheehan said. "That Northrop Grumman is a defense contractor makes it even more valuable for this line of work."

The pay, a competitive hourly wage, isn't bad, either. At the moment, he is working 14 hours per week.

MiraCosta College student Jeannelle Balilo has never shied away from a challenge. It's one of the reasons she enlisted in the Navy, it's why she is seeking a career in a male-dominated STEM field and it's why she is taking part in the groundbreaking, Northrop Grumman-led, work-based learning opportunity.

Balilo, 26, is learning to write computer programs and test state-of-the-art software for an unmanned helicopter being developed by the defense contractor. "It is fun, but it is challenging, too, and there is nothing better for me than to be challenged," Balilo said. "They're allowing me to do things I never thought an intern would be allowed to do. I'm definitely not making coffee or cleaning up the offices. I love it there," she added. "It's amazing and I feel like I fit in really well."

Northrop Grumman's talent pipeline program evolved through the company's involvement with San Diego Regional Economic Development Corporation's Inclusive Growth Steering Committee and support for the Advancing San Diego initiative aimed at aligning local industries with workforce development programs and regional education systems.



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## Northrop Grumman Pilots New Student Talent Pipeline Program in San Diego

POSTED BY SERGIO L. SAGAR ON OCTOBER 16, 2019 IN EDUCATION | 3 OPINIONS | 0 COMMENTS | LEAVE A COMMENT

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**TIMES** of SAN DIEGO



Jeannelle Balilo, pictured center, is a student from MiraCosta College, participating in Northrop Grumman's new talent pipeline program. She is joined by Northrop Grumman engineers, Elyse Falkenstein and Ryan Coleburn. Photo courtesy Northrop Grumman Corp.

Northrop Grumman Corp. launched a new talent pipeline program in San Diego that provides community college students enrolled in science, technology, engineering and mathematics degrees



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## GROUNDBREAKING PROGRAM SECURES MIRACOSTA COLLEGE STUDENTS WORK-BASED LEARNING OPPORTUNITY WITH NORTHROP GRUMMAN

10/31/2019

Working with a leading San Diego employer is a goal for many students. For two MiraCostans, Sheehan and Balilo, this opportunity will be part of a work-based learning program established by Northrop Grumman, a global aerospace and defense technology company.

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- Northrop Grumman will select 2-3 colleges from the San Diego City College District to participate in the Spring 2020 work-based learning opportunity in addition to MiraCosta and Palomar colleges – we will coordinate this process through Mollie Smith
- Northrop Grumman will open up the application process for students in December
- Selection of student cohort will take place in January
- Student onboarding in February 2020; their time with Northrop Grumman would last between 8-16 weeks depending on the internship course offered at the student's college



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