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# Advancing AI and Technical Integration for California Community Colleges

A Collaborative Initiative Across SDCCCD | LACCD | RCCCD

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6NRP, January 2025.





How did this  
all start?

# CENIC

THE RIGHT CONNECTION





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## Numbers at a Glance

- LACCD
  - 225,000 student
  - 13,000 employees
- SDCCD
  - 100,000 students
  - 6,000 employees
- RCCD
  - 60,000
  - 3,500 employees

# What Are We Solving?

- Preparing Students for Emerging Careers
- AI-enhanced Learning Experiences
- Integration into the NRP



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# Access and Equity

- Challenges Addressed
  - Bridging the digital divide
  - Working towards diverse participation
- Solutions Implemented
  - Resources
  - Faculty development



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LOS ANGELES CITY COLLEGE  
**LACC**  
The City's College.



LOS ANGELES HARBOR COLLEGE  
**LAHC**

LOS ANGELES MISSION COLLEGE

LOS ANGELES PIERCE COLLEGE

LOS ANGELES SOUTHWEST COLLEGE

LOS ANGELES TRADE TECHNICAL COLLEGE  
**LATTC**

LOS ANGELES VALLEY COLLEGE  
**LVC**

LOS ANGELES WEST COLLEGE  
**West**

**RCCD**

RIVERSIDE COMMUNITY COLLEGE DISTRICT

MORENO VALLEY COLLEGE

NORCO COLLEGE

RCC RIVERSIDE CITY COLLEGE

## DISCOVER AI Initiatives @SDCCCD

### Welcome to the SDCCCD DISCOVER AI Initiative

At the San Diego Community College District, we are excited to launch the Data, Infrastructure, Science, Computing, Opportunities, Virtual, Exploration and Research (DISCOVER) Artificial Intelligence Initiative, a collaborative initiative spearheaded by the ITS Division in partnership with UC San Diego, San Diego State University, CENIC, LA Community College District, SD County of Education, California Community College Chancellor's Office, our esteemed faculty, and dedicated students. Our goal is to harness the transformative power of artificial intelligence to enhance educational outcomes and foster innovative research across our campuses.



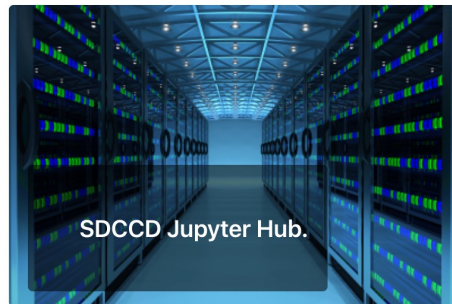
## SDCCCD DISCOVER

# Building Knowledge Types

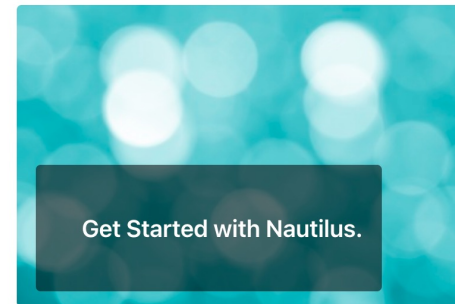
Declarative (What)  
Procedural (How)  
Conceptual (Why)  
Metacognitive (thinking about thinking)



Accelerate scientific discovery with the National Research Platform, a cutting-edge network that connects researchers nationwide, fostering collaboration and driving innovation through high-speed data exchange and advanced computing resources.



Unleash the power of collaborative computing with Jupyter Hub, your gateway to innovation in data science and education, enabling seamless collaboration and resource management across diverse environments.



Explore the depths of data with Nautilus, the robust data management platform designed to streamline your workflows, enhance security, and unlock actionable insights in real-time.



The screenshot displays the JupyterLab interface. On the left, a table titled '> Manage Groups' lists server configurations. The table has columns for 'Admin', 'Server', 'Last Activity', 'Running', and 'Actions'. The 'Running' column contains 'Start Server' and 'Spawn Page' buttons. The 'Actions' column contains 'Edit User' buttons. Above the table are buttons for 'Start All', 'Stop All', and 'Shutdown Hub'. On the right, the 'Launcher' sidebar shows options for 'Notebook' (Python 3 (ipykernel)), 'Console', and 'Other' (Terminal, Text File, Markdown File, Python File, Show Contextual).

Admin	Server	Last Activity	Running	Actions
		Start All Stop All	Shutdown Hub	
admin		3 months ago	Start Server Spawn Page	Edit User
admin		Never	Start Server Spawn Page	Edit User
admin		18 hours ago	Start Server Spawn Page	Edit User
		Never	Start Server Spawn Page	Edit User
		Never	Start Server Spawn Page	Edit User
		2 months ago	Start Server Spawn Page	Edit User
		Never	Start Server Spawn Page	Edit User
		Never	Start Server Spawn Page	Edit User

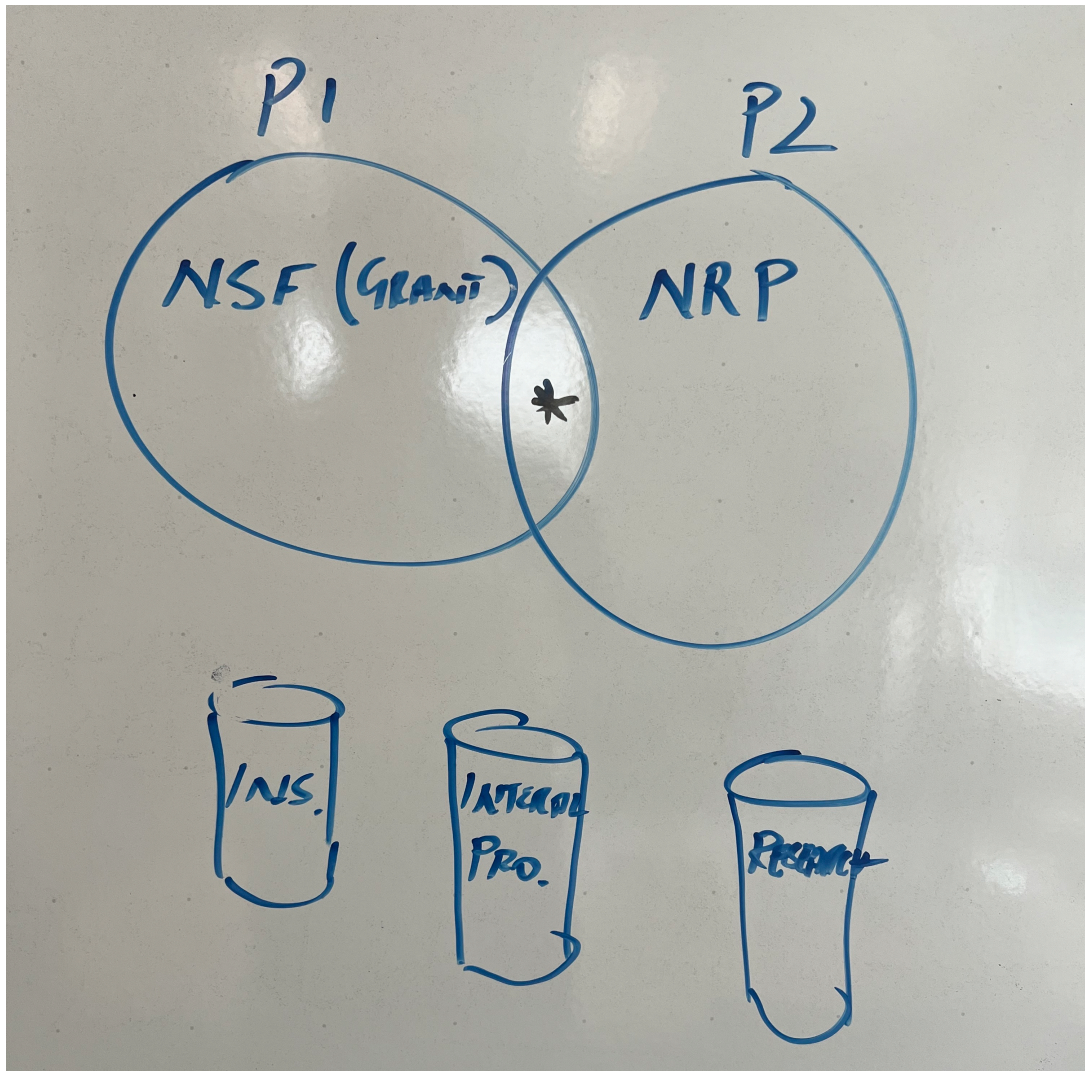
# Administration

## Security, Access, and Workflow (ERP to Jupyter Hub)



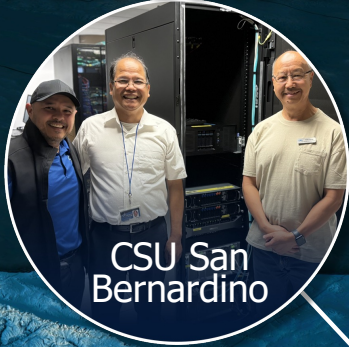
## California's Research & Education Campuses Are Regionally Organized





Driven Idea

# CENIC AIR Hosting Campuses: CSUs & CCCs – The Next Generation





# Insights and Takeaways





Macro Business  
Aspects of AI in  
Education

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Agentic AI at  
SDCCD



SDCCD Ai Tutor

Chat Files

$[\Delta S = \frac{Q}{T}]$

Given:

- (  $Q = 500$  ) J
- (  $T = 400$  ) K

Substitute the values into the formula:

$[\Delta S = \frac{500}{400}]$

$[\Delta S = 1.25 \text{ J/K}]$

So, the entropy change for the system is (  $1.25 \text{ J/K}$  ).

# SDCCD AI-Tutor

Could you explain

SDCCD Ai Tutor AI generated 11:20 AM



To calculate the entropy change for a system that absorbs heat at a constant temperature, follow these steps:

- 1. Identify the amount of heat absorbed by the system, denoted as (  $Q$  ).**
  - In this case, (  $Q = 500$  ) J.
- 2. Determine the constant temperature at which the heat is absorbed, denoted as (  $T$  ).**
  - In this case, (  $T = 400$  ) K.
- 3. Use the formula for entropy change:**  $[\Delta S = \frac{Q}{T}]$
- 4. Substitute the values of (  $Q$  ) and (  $T$  ) into the formula to calculate the entropy change.**
  - Substitute (  $Q = 500$  ) J and (  $T = 400$  ) K into the formula:  $[\Delta S = \frac{500}{400}]$
- 5. Perform the division to find the entropy change:**  $[\Delta S = 1.25 \text{ J/K}]$

So, the entropy change for the system is (  $1.25 \text{ J/K}$  ).



# Improvements to Staff and Faculty

Monday 4:35 PM

how can I get reimbursed for travel expenses?

SDCCD ITS AI Agent AI generated Monday 4:35 PM



To get reimbursed for travel expenses, ensure that the travel is approved and identified in the current year Perkins plan. Allowable travel expenses include instructor travel, meals, lodging, and transportation costs associated with excursions or extended learning opportunities tied directly to CTE coursework. Proper documentation and adherence to basic cost principles are required.

Today

11:23 AM

What are the enrollment numbers for the spring term for the Fire Science program at Miramar College. Show the results in tabular format.

Last read

SDCCD ITS AI Agent AI generated 11:23 AM



The enrollment numbers for the Fire Science program at Miramar College for the Spring term are as follows:

Course	Enrollment
FIPT 343 Command Operations	20 students
FIPT 344 Wildland Operations	32 students
FIPT 345 Instructor I (Justin Matsushita)	30 students
FIPT 345 Instructor I (Jonathan Strickland)	16 students
FIPT 350 Chief Fire Officer 3	23 students
FIPT 352B Fire Inspector 2B	0 students
FIPT 352C Fire Inspector 2C	0 students
FIPT 353A Plan Examiner 1A	0 students
FIPT 353B Plan Examiner 1B	0 students

# Creating Opportunities

- Workforce Ready.
- Informed students, faculty, and administrators on the platform(s).
- Continuous growth within the CCC system, 116 colleges for 2M students – Funding (CC\*, NAIRR, CCCCCO).



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What Starts Here Changes  
California.

What Starts Here Changes the  
World.





Thank You

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