

ISP
innovation
certificate

ispinnovation.wordpress.com



what this is

The ISP Inquiry & Innovation Certificate engages students in unique, personalized learning experiences.

With this certificate students are given the opportunity to develop 21st century skills. This is the type of learning for innovation that is increasingly recognized as critical for success in today's collegiate programs, careers, and workplaces.

A photograph of two students in a library. On the left, a young man with glasses and a maroon polo shirt is looking down. On the right, a young woman with glasses and a dark striped shirt is looking at a book. The background shows bookshelves filled with books.

why is this important?

At the conclusion of the Innovation Certificate students will develop 21st century thinking skills

- address complex, authentic problems
- think interdependently
- develop research and reasoning skills
- understand how to gather and analyse data
- develop innovative and creative solutions
- develop clear communication skills



what other schools do this?

We researched many different schools and programs to develop this certificate. Some of the schools we researched include:

High Tech High, San Diego California

Singapore Polytechnic

Singapore American

Franklin Delano Roosevelt, Lima Peru

Leading Public Schools in Rhode Island and Ohio

Texas STEM Capstone

IB & AP



Roberto Esquenazi's inquiry project, "How can Panamanian Hospitals incorporate 3d printers to improve treatment in the fields of orthotics and prosthetics?"



Vanessa Richani's inquiry project, "can YouTube, blogging and social media make for full-time jobs? If so, can they help alleviate problems such as unemployment and provide a stable solution for people with unconventional interests or limited access to the business world in Panama?"

A close-up, slightly blurred photograph of a student with freckles writing in a notebook. The student is wearing a dark blue hoodie. A yellow pencil is visible in the lower left foreground. The background shows stacks of books in various colors like pink, blue, and green. The overall lighting is soft and focused on the student's face and hands.

who this is for

The ISP Innovation certificate is a two-year program offered during the junior and senior year.

Students apply at the end of their Sophomore year. This track is considered a full 2-year commitment.

18

8am BVR Math Morning

History Paper due

3-4-5-5p ballet

5-6-7-7p Jazz rehearsal

6-8p swim practice

6-7-8p Lyrical rehearsal

25

Administrative Professionals Day

BVR Math Morning

how does this fit in?

ISP at a glance

- Current student body is approximately 1230
- High School student body is approximately 340
- IB Program is offered in 11th and 12th grades
- Sports, Band, Drama, Student Council, and many other Co-curricular Activities
- 24 Credits are required to graduate (majority receive 28-32)

curriculum sample IB Diploma

| Year 1 | 8cr | Year 2 | 7cr | Year 3 | 8cr | Year 4 | 8cr |
|------------------|-----|-------------------|-----|-----------------------|-----|-----------------------|-----|
| English | 1cr | English | 1cr | IB Eng Lang Y1 | 1cr | IB Eng Lang Y2 | 1cr |
| Spanish | 1cr | Spanish | 1cr | IB Spanish Y1 | 1cr | IB Spanish Y2 | 1cr |
| World History | 1cr | M & C History | 1cr | IB Global Politics Y1 | 1cr | IB Global Politics Y2 | 1cr |
| Geometry | 1cr | Math Adv Topics | 1cr | IB Economics Y1 | 1cr | IB Economics Y2 | 1cr |
| General Biology | 1cr | General Chemistry | 1cr | IB Math Y1 | 1cr | IB Math Y2 | 1cr |
| Drama | 1cr | General Physics | 1cr | IB Physics Y1 | 1cr | IB Physics Y2 | 1cr |
| Computer Studies | 1cr | Computer Science | 1cr | IB Research | 1cr | IB TOK | 1cr |
| Phys Ed | 1cr | | | CAS | 1cr | CAS | 1cr |

One credit is granted for each full year course, and is equal to approximately 125 hours of class, lab or field study. 24 credits are required for to graduate.

curriculum sample **With Inquiry & Innovation Certificate**

| Year 1 | 8cr | Year 2 | 7cr | Year 3 | 7cr | Year 4 | 7cr |
|------------------|-----|-------------------|-----|---------------------------------|-----|---------------------------------|-----|
| English | 1cr | English | 1cr | IB Eng Lang Y1 | 1cr | IB Eng Lang Y2 | 1cr |
| Spanish | 1cr | Spanish | 1cr | IB Spanish Y1 | 1cr | IB Spanish Y2 | 1cr |
| World History | 1cr | M & C History | 1cr | IB Global Politics Y1 | 1cr | IB Global Politics Y2 | 1cr |
| Geometry | 1cr | Math Adv Topics | 1cr | IB Economics Y1 | 1cr | IB Economics Y2 | 1cr |
| General Biology | 1cr | General Chemistry | 1cr | IB Math Y1 | 1cr | IB Math Y2 | 1cr |
| Drama | 1cr | General Physics | 1cr | Inquiry & Innovation | 1cr | Inquiry & Innovation | 1cr |
| Computer Studies | 1cr | Computer Science | 1cr | Service Learning | 1cr | Research and Reflection | 1cr |
| Phys Ed | 1cr | | | | | | |

One credit is granted for each full year course, and is equal to approximately 125 hours of class, lab or field study. 24 credits are required for to graduate.



what will they do?

Design a product, service, or system

This approach involves identifying needs that could be met with new products, services, or systems; and creating solutions to meet those needs.

Improve a system

This involves developing an understanding of the way systems of people, machines, and processes work, identifying problems within that system; and developing a strategy to improve that system.

program overview

| Year 1 | | Year 2 | | | |
|-------------------------------------|---|--|----------------------|---|---|
| 2cr | | 2cr | | | |
| Summer Pre-Program Activities | Seminar: Research Fundamentals <i>.5 credits</i> | Seminar: Evaluating & Addressing Problems <i>.5 credits</i> | Summer Field Trip | Seminar/Studio: Developing a Project Proposal <i>.5 credits</i> | Working Studio Finalizing your Main Project <i>.5 credits</i> |
| | Service Learning: Identifying and Shadowing an external Mentor/Advisor. <i>1 credit</i> | | | Research & Reflection: External evaluation and Design Testing Mentor/Advisor. <i>1 credit</i> | |

all in-class meetings occur during 1 block of the student's semester. "Service Learning" and "Research & Reflection" will occur outside of class.

program overview

| Year 1 | | Year 2 | |
|-------------------------------------|---|--------|---|
| 2cr | | 2cr | |
| Summer Pre-Program Activities | Seminar: Research Fundamentals <i>.5 credits</i> | | |
| | Service Learning: Identifying and Shadowing an external Mentor/Advisor. <i>1 credit</i> | | Research & Reflection: External evaluation and Design Testing Mentor/Advisor. <i>1 credit</i> |

Year 1 Seminar: Research Fundamentals
This course focuses on research fundamentals and problem solving. Students will be exposed to different types of research methods and how they are applied in various real world situations.

all in-class meetings occur during 1 block of the student's semester. "Service Learning" and "Research & Reflection" will occur outside of class.

program overview

| Year 1 | | Year 2 | |
|-------------------------------|--|--|---|
| | 2cr | | 2cr |
| Summer Pre-Program Activities | Seminar: Research Fundamentals <i>.5 credits</i> | Seminar: Evaluating & Addressing Problems <i>.5 credits</i> | |
| | Service Learning: Identifying and Shadowing an external Mentor/Advisor. <i>1 credit</i> | Sum Field | External evaluation and Design Testing Mentor/Advisor. <i>1 credit</i> |

Year 1 Seminar: Evaluating and Addressing Problems
Students will learn to develop case studies on an assigned topic. They will learn how to frame a problem, connect with stakeholders or end users, assess available resources, and propose a solution.

all in-class meetings occur during 1 block of the student's semester. "Service Learning" and "Research & Reflection" will occur outside of class.

program overview

| Year 1 | | Year 2 | | | |
|-------------------------------------|--|---|----------------------|--|--|
| 2cr | | 2cr | | | |
| Summer Pre-Program Activities | <i>Seminar:</i> Research Fundamentals .5 credits | <i>Seminar:</i> Evaluating & Addressing Problems .5 credits | Summer Field Trip | <i>Seminar/Studio:</i> Developing a Project Proposal .5 credits | <i>Working Studio</i> Finalizing your Main Project .5 credits |
| | <i>Service Learning</i> Identifying and Shado external Mentor/Ad 1 credit | | | | |

Year 2 Seminar/Studio: Developing a Project Proposal
 This course marks the beginning of a student's individual research project. Students will be expected to developing a proposal, locate an external advisor, develop a Gantt chart or timeline, and present a project proposal pitch to a committee.

all in-class meetings occur during 1 block of the student's semester. "Service Learning" and "Research & Reflection" will occur outside of class.

program overview

| Year 1 | | Year 2 | | | |
|-------------------------------------|--|---|----------------------|--|--|
| 2cr | | 2cr | | | |
| Summer Pre-Program Activities | <i>Seminar:</i> Research Fundamentals .5 credits | <i>Seminar:</i> Evaluating & Addressing Problems .5 credits | Summer Field Trip | <i>Seminar/Studio:</i> Developing a Project Proposal .5 credits | <i>Working Studio</i> Finalizing your Main Project .5 credits |
| | <i>Service Learning</i> Identifying and Shado external Mentor/Ad 1 credit | | | | |

Year 2 Working Studio: Research and Reflection
 This course marks the end of a student's individual research project. Students will be expected to focus on project creation, finishing their journal, finalizing their research paper, and preparing for their final defense and presentation.

all in-class meetings occur during 1 block of the student's semester. "Service Learning" and "Research & Reflection" will occur outside of class.

According
following

**critic
think**

5 (A)
Demonstrates
analyzing
information
perspective
demonstrates
problem-solving
scholarly
terminology
information

4 (B)
Demonstrates
analyzing
information
perspective
the ability
logically,
methods
and empirical

3 (C)
Demonstrates
analyzing
information
perspective
demonstrates
problem-solving
scholarly
terminology
information

2 (D)
Demonstrates
analyzing
information
perspective
demonstrates
problem-solving
scholarly
terminology
information

1 (F)
Demonstrates
analyzing
information
perspective
the ability
logically,
methods
and empirical

documentation

*effective
communicator
rubric*

working documents:

rubric criteria

project brief

report log

presentation review

final capstone report

Project Statement:

Lorem ipsum dolor
nonummy nibh euismod
volutpat. Ut
ullamcorper suscipit

No more than two to three sentences.

project statement will evolve to become the student's basic project statement—what they will do, for what purpose, for whom and how to measure the performance.

Working Title:

Lorem Ipsum Dolor Amet

Consect Tuer Adipiscing

Sed Diam Nonummy:
Dolore Magna Aliquam

Project Description:

Lorem ipsum dolor sit amet
tincidunt ut laoreet
nostrud exerci tation
more than two sentences
nonummy nibh euismod
minim veniam, quis nostrud
commodo consequat. No more than two sentences.

project description the student provides more detailed background information about their capstone problem. This includes relevant design factors, media choice, etc.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod
tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis
nostrud exerci tation ullamcorper
more than two sentences
nonummy nibh euismod
minim veniam, quis nostrud
commodo consequat.

desired result the student provides their project's desired result. What does the user walk away with after experiencing the project? This will be a key measure.

09.01.09

Interview:

Met with Ms. Ashley Bonner, Associate Professor, Anthropology department.

We discussed my tentative capstone topic regarding information displays in natural history museums.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi

enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis aute irure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum doloremque id mauris dolore te feugait nulla facilisis. I will provide me with some good resources and publications and online.

Readings:

This week I checked out from the library Victor Margolin's book, *The Struggle for Utopia: Rodchenko + Lissitzky*. I was particularly interested in reading about El Lissitzky's ideas about exhibition design. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

Site Visit:

Drove up to the Chicago Art Museum where they

09.27.09

Interview:

Met with Ms. Ashley Bonner, Associate Professor, Anthropology department.

We discussed my tentative capstone topic regarding information displays in natural history museums. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad

Report Log serves as a record between the senior student and instructor of all research activities conducted throughout either the quarter. It will be continuously be updated.

Readings:

This week I checked out from the library Victor Margolin's book, *The Struggle for Utopia: Rodchenko + Lissitzky*. I was particularly interested in reading about Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

Next Week:

working title:

A Mopedaler's Resource

Community and self-sufficiency are hallmarks of the growing mopedaler culture and moped resurgence in America. However, resources for today's mopedalers are limited.

Midterm Presentation

Project Statement

Desired Results

Audience/User Profile

Visual References

Attended by Faculty &
Guest Critics

Innovation and Inquiry Rubrics

critical thinking

5 (A)

Demonstrates **excellence** in analyzing, synthesizing, and evaluating information and ideas from multiple perspectives. **Consistently** demonstrates the ability to solve problems, argue logically, apply scholarly and scientific methods, use terminology accurately, and employ information literacy skills.

4 (B)

Demonstrates **proficiency** in analyzing, synthesizing, and evaluating information and ideas from multiple perspectives. **usually** demonstrates the ability to solve problems, argue logically, apply scholarly and scientific methods, use terminology accurately, and employ information literacy skills.

3 (C)

Demonstrates **adequacy** in analyzing, synthesizing, and evaluating information and ideas from multiple perspectives. **Frequently** demonstrates the ability to solve problems, argue logically, apply

effective communicator

5 (A)

Demonstrates **excellence** in understanding and conveying ideas in diverse contexts, especially through reading, writing, speaking, and listening. **Consistently** demonstrates the ability to use resources, technology and skills appropriate to the aural, visual and/or language arts.

4 (B)

Demonstrates **proficiency** in understanding and conveying ideas in diverse contexts, especially through reading, writing, speaking, and listening. **Usually** demonstrates the ability to use resources, technology and skills appropriate to the aural, visual and/or language arts.

3 (C)

Demonstrates **adequacy** in understanding and conveying ideas in diverse contexts, especially through reading, writing, speaking, and listening. **Frequently** demonstrates the ability to use resources, technology and skills appropriate to the aural, visual and/or language arts.

social responsibility

5 (A)

Demonstrates **excellence** in historical ethical reasoning and in knowledge of contemporary social and ethical issues. **Consistently** demonstrates knowledge, skills, and attitudes that are conducive to responsible civic engagement.

4 (B)

Demonstrates **proficiency** in historical ethical reasoning and in knowledge of contemporary social and ethical issues. **Usually** demonstrates knowledge, skills, and attitudes that are conducive to responsible civic engagement.

3 (C)

Demonstrates **adequacy** in historical ethical reasoning and in knowledge of contemporary social and ethical issues. **Frequently** demonstrates knowledge, skills, and attitudes that are conducive to responsible civic engagement.

2 (D)

Demonstrates **limitations** in historical ethical reasoning and in knowledge of contemporary social and ethical issues.

knowledge integration

5 (A)

Demonstrates **excellence** in fusing information and concepts from multiple disciplines from personal, professional, and civic enhancement. **Consistently** demonstrates the ability to evaluate critically one's own views and those of others and the ability to access, judge and compare diverse fields of knowledge.

4 (B)

Demonstrates **proficiency** in fusing information and concepts from multiple disciplines from personal, professional, and civic enhancement. **Usually** demonstrates the ability to evaluate critically one's own views and those of others and the ability to access, judge and compare diverse fields of knowledge.

3 (C)

Demonstrates **adequacy** in fusing information and concepts from multiple disciplines from personal, professional, and civic enhancement. **Frequently** demonstrates the ability to evaluate critically one's own views and those of others and the ability to access, judge and compare diverse fields of knowledge.

しかたがない

SHIKATA GA NAI
(it can't be helped)

On December 7th, 1941, the Japanese Empire attacked Pearl Harbor, spurring the United States to war.

As a result of previous anti-Japanese sentiment on the West Coast and the perceived threat of internal sabotage, Japanese Americans were relocated to internment camps across the nation.

My grandmother, Toshi Kadawaki, was one such internee. This is her story and the story of a nation's unchecked fears.



BEGIN

1920

FARM LIFE

のうじょうせいかつ



1920

What on the farm life?

My grandmother, Toshi Kadawaki, was born in Gardens, California, in 1918.

click and drag immigrant farmers that emigrated to America in hopes of a better future.

The senior children, she has strawberries and tomatoes off of since anything helps.

1920

FARM LIFE

SCHOOL AND MUSIC

LOVE AND WAR

1941

1942

EVACUATION

ADAPTING

1943

1944

1945

COMPLICATIONS

AFTER CAMP

EPILOGUE

1920

FARM LIFE

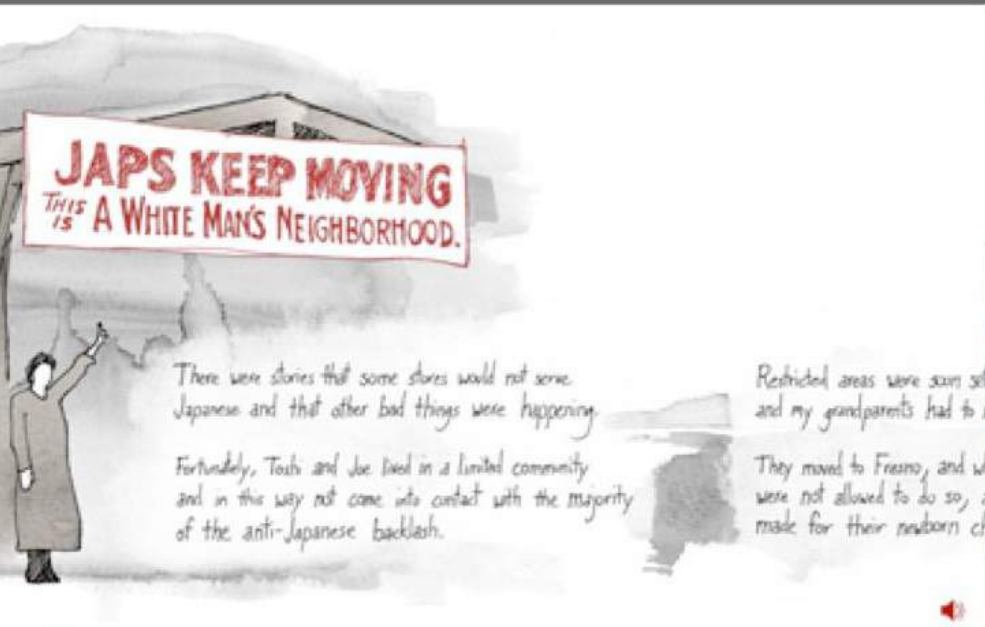
SCHOOL AND MUSIC

The Denial of Land

To impede the success of Japanese immigrant farmers, the second Alien Land Law is passed. These two laws forbid the leasing and ownership of land by "all aliens ineligible for citizenship." While this does not effect European immigrants, those of Asian origin are barred from citizenship and thus land.

Barred

In Takeo O... rules that c... aliens of A... from citizen...



| | | | | | | | | | | | |
|--------------|-----------------------|---------------|------------|----------|---|---|-----------------------|---------------|------------|----------|------|
| 1941 | 1942 | 1943 | 1944 | 1945 | 1920 | 1920 | 1941 | 1942 | 1943 | 1944 | 1945 |
| LOVE AND WAR | EVACUATION ADAPTING | COMPLICATIONS | AFTER CAMP | EPILOGUE | FARM LIFE SCHOOL AND MUSIC LOVE AND | FARM LIFE SCHOOL AND MUSIC LOVE AND WAR | EVACUATION ADAPTING | COMPLICATIONS | AFTER CAMP | EPILOGUE | |

Restricted

Curfews are enacted in specific areas on the West Coast. Japanese immigrants and Japanese Americans are allowed to travel only to work, which cannot be more than 5 miles away.



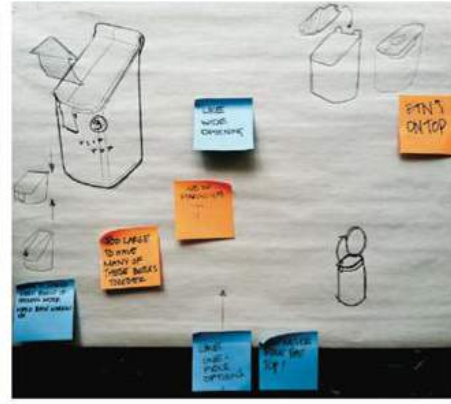
Closure

The War Relocation Authority announces plans to close all relocation centers within a year. These plans would not come to pass.



Darren Burton, National Program
Associate of Technology for the AFB.





USER TESTING INSIGHTS:

- + DEFINED TEXTURES ON A SMOOTH-ROUGH SCALE
- + NOTICED OVERALL SIZE OF PILL BOTTLES (TOO BIG TO HAVE MANY)
- + PREFER POP-OFF TOPS ATTACHED TO THE BOTTLE
- + LABELING TEXTURES W/ BRaille DOTS TO NUMBER (1-6)
- + USE COLOR IN ADDITION TO TEXTURE + DOTS
- + POSITIVE FEEDBACK TO ADDING AUDIO OPTION

TESTING ANALYSIS:

- USERS COULDN'T UNDERSTAND MODELS THAT DON'T OPEN YET
- FORMS W/OUT TEXTURE WOULD HAVE IT...
- CONVEX VS. CONCAVE TEXTURES
- AUDIO: PLAY/PAUSE (DOT) PLAY/STOP PLAY (HOLD DOWN)



