

Maya and Inca Mathematics

HSI Lanzamiento Community of Practice

FACILITATORS: TIM MELVIN AND SALVADOR RICO

Semester: Fall 2021

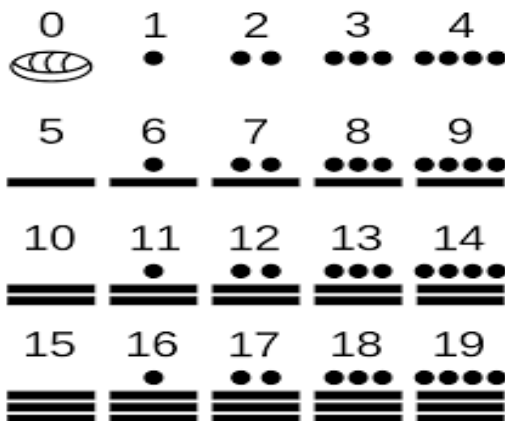
Duration: Four two-hour sessions from 1:00 PM to 3:00 PM on the following days:

Friday, September 3rd
Friday, October 1st
Friday, November 5th
Friday December, 3rd

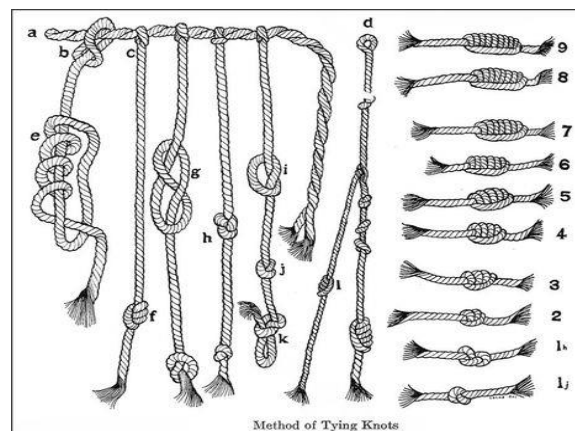
The two-hour session would consist of content exposition supplemented with activities where participants will practice with some of the mathematical concepts.

TOPICS

Maya numeral system



Inca numeral system



- 1) Historical counting systems
 - a) Introduction and basic number and counting systems
- 2) The number and counting system of the Inca civilization
 - a) Historical background
 - b) Counting boards
 - c) The Quipu

Hindu–Arabic numeral system

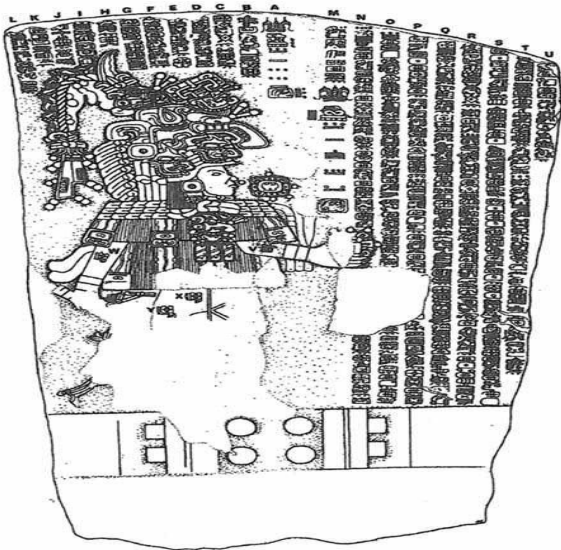
European (descended from the West Arabic)	0	1	2	3	4	5	6	7	8	9
Arabic-Indic	٠	١	٢	٣	٤	٥	٦	٧	٨	٩
Eastern Arabic-Indic (Persian and Urdu)	۰	۱	۲	۳	۴	۵	۶	۷	۸	۹
Devanagari (Hindi)	०	१	२	३	४	५	६	७	८	९
Tamil		௦	௧	௨	௩	௪	௫	௬	௭	௮

https://en.wikipedia.org/wiki/File:Arabic_numerals-en.svg

- 3) The Hindu – Arabic number system
 - a) Evolution
 - b) The positional system
 - c) Transmission to Europe
- 4) The development and use of different number bases
 - a) Introduction and basics
 - b) Decimal number systems
 - c) Base conversion

La Mojarra: One of the oldest Maya calendar

Friar Diego de Landa



- 5) The Mayan numerical system.
 - a) Historical background
 - i) Diego de Landa
 - ii) Act of Faith of Mani



- iii) The Dresden Codex
- b) The Mayan number system
- c) Operations with Mayan numbers
- d) Mayan calendars
 - i) 2012, the misinterpretation leading to the “Maya apocalypse”
 - ii) Ernst Forstemann
 - iii) The Tzolk’in Calendar
 - iv) The Haab Calendar

The Tzolk’in Calendar



The Haab Calendar



HSI Lanzamiento Community of Practice

FACILITATOR: ROBERTO ALVARADO

Semester: Fall 2021

Communities of Practice/*Prácticas de la Comunidad—Calpulli*

Fall Community of Practice:

Two hour Lecture by: Dr. Laura Rendón's at Bowdoin College on November 12, 2018, "Teaching and Learning for Wholeness and Social Change"



Laura Rendon.htm



Friday, September 24, 10:00-12:00 pm

HSI *Lanzamiento* Community of Practice

PETALUMA CAMPUS: LANZAMIENTO ACROSS DISCIPLINES

Facilitators:

Loretta Esparza

Matthew Martin

AC Panella

This CoP will occur over the summer with four two-hour sessions:

Wednesday, June 16, 10:00 am-12:00 pm.

Friday, June 18, 10:00 am-12:00 pm.

Wednesday, July 28, 10:00 am-12:00 pm.

Friday, July 30, 10:00 am-12:00 pm.

The purpose of this Community of Practice is to design and build student-facing activities and share curriculum, readings, themes, and materials in order to develop a collective vocabulary across disciplines on the Petaluma Campus. This work will serve to enhance faculty understanding and knowledge of the Latinx culture, history and experience and highlight the interconnectedness of the various disciplines represented in the *Lanzamiento* Learning Community. In doing so, we hope to build a more inclusive and enmeshed learning experience for our students.

The scope of the discussions will address, but is not limited to: Laura Rendon's theory of "sentipensante", authors such as Victor Rios, Gloria Anzaldúa, and Rigoberta Menchu, pre-contact cultures, developing a shared coordinated calendar of *Lanzamiento* events, exploring opportunities for students to develop leadership skills, and integrating technology (like podcasts and live streaming) into projects and instruction opportunities

HSI Lanzamiento Community of Practice

FACILITATOR: TONY RUIZ

GUEST SPEAKER: LORI KUWABARA

Semester: Fall 2021

Meeting 1: Paolo Ramos: *Finding Latinx: In Search of the Voices Redefining Latino Identity*

**Paola Ramos, "Finding Latinx: In Search of the Voice Redefining Latino Identity"
\$16.95 ISBN 9781984899095**



Friday, August 27, 10:00-12:00 pm

How might we understand the claim to Latinx identity? This CoP invites faculty to explore how we may understand Latinx identity through a series of readings by Paola Ramos and Gloria Anzaldua, film by Laura Guerrero, and in our own work with students to empower self-discovery in the classroom. A central objective is to appreciate the voices and stories of our own Latinx students in their multiplicity of identities.

Paola Ramos seeks to answer the question on Latinx identity in a collection of stories, from across America, in her book *Finding Latinx: In Search of the Voices Redefining Latino Identity*. Ramos, a Latina and queer journalist, reveals that Latinx identity is anything but monolithic by documenting the diversity of voices--indigenous, Afrolatinos, undocumented, Dreamers, LGBTQ, and from different national backgrounds--who are often overlooked and constitute an emerging and empowered identity. Ramos writes, the word "Latinx" "captured the stories of all these people under one umbrella, spanning so many separate identities." Ramos

offers an engaging and story-driven exploration on how we may understand Latinx identity today. (We read selected chapters from her book.)

Meeting #2: From Chicana to Latinx: Gloria Anzaldúa and Paola Ramos

Friday, September 24, 9:00-12:00 pm

Today, the word "Latinx" is as conflicted for many as "Chicano/a" post-1960s. In her experimental autobiography *Borderlands / The New Mestiza* (1987), Gloria Anzaldúa reimagined what it means to be Chicana for many who struggled to fit one identity. Anzaldúa challenged normative paradigms with a "new *mestiza* consciousness," characterized by hybridity, flexibility, and a plurality of cultural forces that shape experience. Her exploration of Chicana identity also required innovation in form, experimenting in storytelling, fiction, poetry, memoir, and cultural criticism. We will consider the relationship between Anzaldúa's ideas on a "new" Chicana consciousness and the contemporary conception of Latinx identity, reading selections from Anzaldúa and Ramos. Participants will also view the film *Mosquita y Mari*, written and directed by Laura Guerrero. A Latina filmmaker on the subject of young Latinas, this film offers a contemporary story on the subject of Latinx identity. (Film available through Kanopy and handout available for Anzaldúa.)



(Handout available for Anzaldúa readings.)

Meeting #3;

Friday, October 22, 9:00-11:00 am

This workshop invites faculty to share assignments and projects that empower students to explore, discover, or reimagine their own stories and identities. The parameters can remain broad in order to collect a variety of methods and practices, across disciplines. We may represent a variety of forms, from writing to media, from photography to the arts. The prompt, "What does it mean to be...?" can be a starting point for assignments that foster storytelling, with the objective to reflect on personhood, family, education, and social life among our Latinx students. However, we welcome discipline specific approaches that meet and exceed our objectives.

Laura Rendón on Validation



Facilitators: Lauren Servais & Freddy Martinez

Semester: Spring 2021

Date & Time: Friday, May 7, 1 - 3 pm

Validation theory argues for the centering and empowering of students of color. Historically, institutions of higher education have operated on models of suppression and *separation*, as Laura Rendón refers to it, whereby “non-traditional” students are asked to assimilate into Western ways of knowing.

In this Community of Practice, we hope to interrogate the manners in which our institutions and instructional methods may act to invalidate our students’ cultural backgrounds, histories, and subsequent self-valuation and intuitions about our world. But more importantly, we will seek to surface enabling practices, where students can come to understand themselves and their perspective as valid and valuable, as co-producers of knowledge in academia.

“My success is always limited,” [Tressie McMillan Cottom states](#), on her success in academia as a Black woman, “by how well other people can imagine the possibility of me.” Help us develop the social and institutional infrastructure necessary for student success, to develop the conditions for our students, in particular, our historically excluded students, to flourish in higher education.

Join us for dialogue and inquiry as we prepare to validate our students in Lanzamiento.

Culturally Responsive & Sustaining Pedagogies



Facilitators: Lauren Servais & Freddy Martinez

Semester: Fall 2021

Date & Time: Mondays, Sept. 13, 1 - 4 pm; Sept. 20, 1 - 4 pm; Oct. 4, 1 - 3 pm

What does it mean to be a culturally responsive and sustaining instructor? That is, how can we teach in a manner which speaks to our students' cultural backgrounds, their histories, and lived experiences? Moreover, how can we teach so that students are not *removed* from their communities through higher education, but rather enabled to extend and foster their communities within academia, to develop heterogeneous heuristics and epistemologies within our establishments, to allow us to *conocer* the world anew?

What has animated us as educators? We often speak of transforming our students' lives. Maybe, now is the time to let students transform our teaching, our institutions?

These are the questions we hope to explore in our Community of Practice. Join us to build knowledge, engage in reflection, and most importantly, weave both into critical action.

Creating a Transformative Syllabus

Community of Practice



General Resources

[Brené Brown on Empathy \(3 minutes\)](#)
[SRJC DRD Sample Syllabus Language](#)
[Puente: An Equity Minded Syllabus](#)



Canvas Resources

[Canvas Creative Commons for SRJC Student Services Information:](#)
Search for "Resources and Technology Support: Student Success Coaches"
[Broken Down Syllabus Using Canvas \(4-minute video\)](#)



Liquid Syllabus

[Create a Liquid Syllabus](#)
[Puente: Liquid Syllabus](#)

Facilitators:
Roberto Alvarado
Luz Navarrette García

SRJC Syllabus Requirements

[Message From AFA](#)

[Article 17: Job Descriptions](#) (see 17.05 A4 on page 3)

Board Policy: [BoardDocs](#)

Officially...

AFA Syllabus Requirements

Article 17 Syllabus Requirements:
Issue a syllabus at the start of each class that includes:

1. Course description and organization following the approved course outline of record
2. Reading and lecture schedule
3. Assignment structure
4. Written grading policy
5. An electronic link or direction to the approved course outline of record

Board Docs Syllabus Requirements

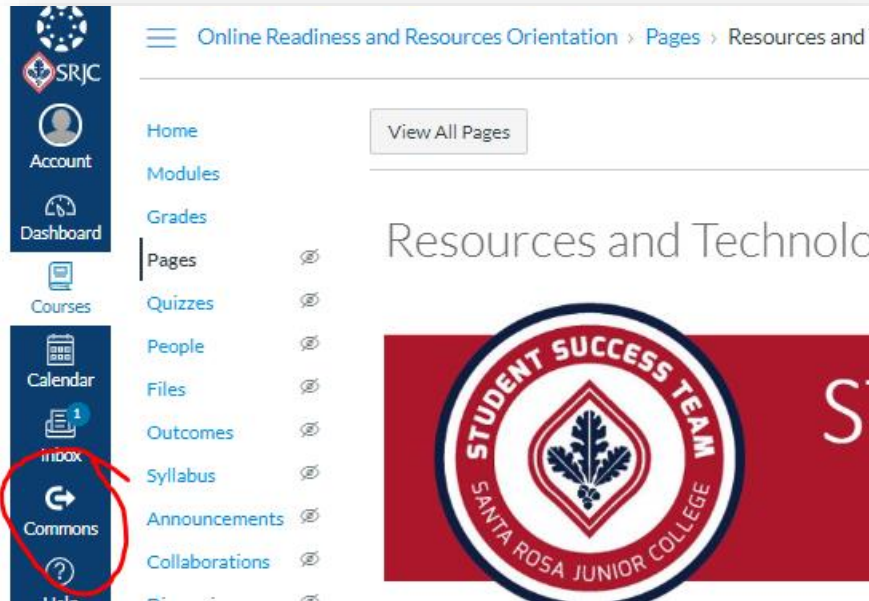
All instructors must provide a syllabus to students for every class they teach within the first week of each class. Each syllabus will include the following:

1. Course description including student learning outcomes, office location, office hours, alternative student contact hours, and instructor contact information
2. Required texts and supplemental materials
3. List of assignments
4. Grading policy including grading scales, late work policy
5. Attendance and lateness policy

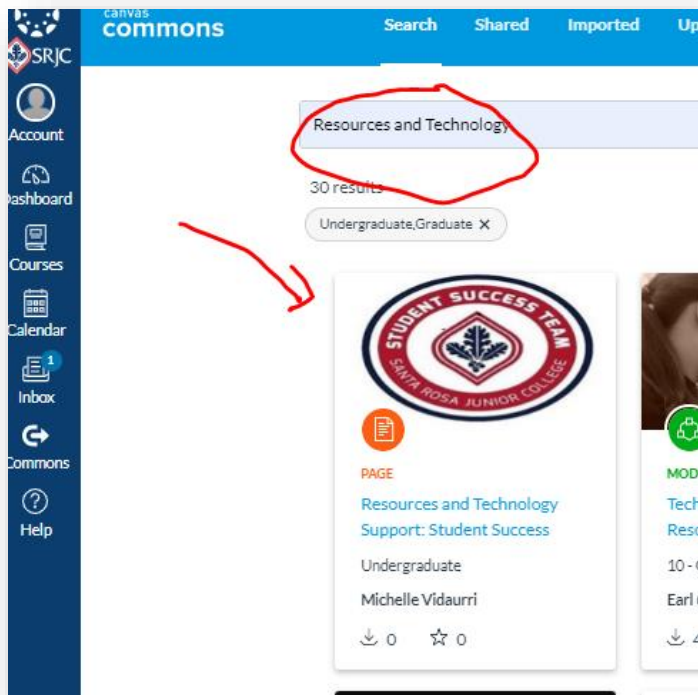
Optional Best Practices Listed in Board Docs: Overview of topics, Calendar of assignments with language indicating that dates are tentative, Instructor's pedagogical philosophy, Link course objectives with student learning outcomes (SLOs)

Check with your department for additional recommendations specific to your discipline.

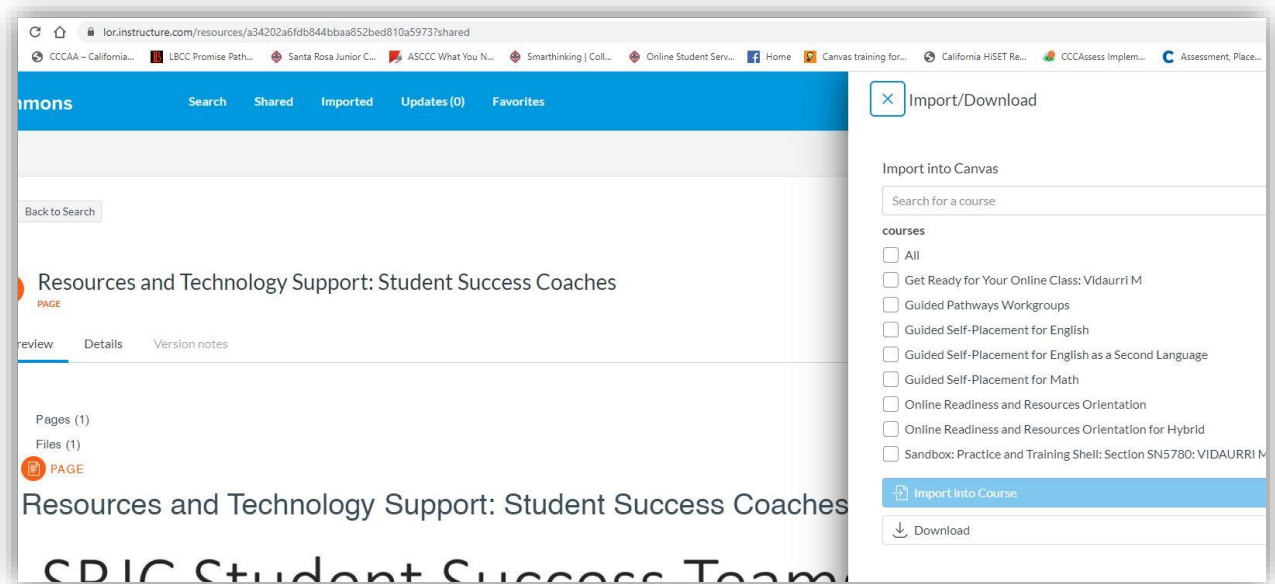
1. Open and log in to your Canvas account
2. Once your Canvas account is open, select the Commons icon on your left navigation menu



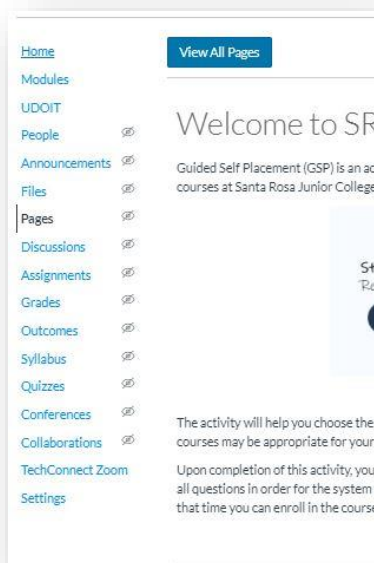
3. Once you Canvas Commons opens, search by the title "Resources and Technology Support: Student Success Coaches." Your view will appear as shown below. Select the page with our logo.



- Once you have selected the Import/Download button you will see the following options. Select the courses you wish to share the Resources and Technology Support page with. When done selecting, choose the blue button titled, Import into this Course.



- Open the courses you have selected in your Canvas account. Select view pages, and find the page by the title Resources and Technology Support. You can then link it to your course introduction, discussion or anywhere you wish that will allow students to find and reference it.



6. If you are unsure how to link to a page within your Canvas environment, you would open the page and select the URL as shown below.

