



# Clark College

## Board of Trustees Work Session Packet

Wednesday, March 13, 2024, at 3:30 pm

<https://clark-edu.zoom.us/j/89584011826?pwd=Z3EveXNDQU9nNDJ1cEV3TXF0VmN2UT09>

Meeting ID: 895 8401 1826

Passcode: 420422

Dial in: 1 (253) 215 8782

**Physical Location:**

**Gaiser Hall, Room 213**

## Board of Trustee Work Session Packet, March 13, at 3:30 pm

- I. Call to Order/Agenda Review – Chair Canseco Juarez
- II. Public Comment – Chair Canseco Juarez  
Public comment will be limited to two minutes each.
- III. Clark College Financial Overview and 2024-25 Budget Planning Outlook  
Presented by Sabra Sand, Vice President of Operations
- IV. Sabbatical Requests - Dr. Tina Redd, Interim Vice President of Instruction
- V. Adjournment – Chair Canseco Juarez



# FY 2025 Budget Kickoff

Presented by:

Sabra Sand, Vice President of Operations

Tanya Kerr, Director of Business Services

# A few notes first

- We are not proposing that the college take a budget reduction next year
- This presentation is being recorded and will be posted on Clarknet once captioning is complete
- Tanya Kerr will monitor questions in chat

# What I will cover

- Where do the dollars come from
- Current year Full Time Enrollment (FTE) & revenue budget to actual
- Fiscal Year (FY) 2025 FTE & revenue projections
- FY 2025 must fund items
- FY 2025 Budget
- Projecting ahead: 5-year projections
- Final thoughts

# Where the dollars come from

Four funding sources that make up the College's operating budget

- State funds
  - Appropriated by legislature; allocated to individual colleges by SBCTC
- Operating funds – tuition revenue
- Running Start – revenue from high schools
  - Reimbursement rates are set by OSPI
  - Rates are different for vocational vs. non-vocational
- Dedicated Revenue – various sources
  - Class fees, matriculation fee, tech fee, testing fee, etc...

# 2023-24 Funding distribution

Revenue Source	Amount	% of Total
State Allocation	\$50,365,211	60.27%
Tuition	14,820,411	17.73%
Running Start	11,493,298	13.75%
Fund Balance Backfill	2,717,277	3.25%
<u>Dedicated Student Fees</u>	<u>4,173,059</u>	<u>5.0%</u>
<b>Total Operating Budget</b>	<b>\$83,569,256</b>	

# Current FY 2024 FTE: budget to actual

- State FTE Target 4,429

State FTE Target	Budgeted	Projected Actual	Difference
General FTE	4,219	4,487	268
BAS FTE	160	198	38
International FTE	50	56	6

- Running Start FTE Target 1,380

Running Start FTE Target	Budgeted	Projected Actual	Difference
Running Start	1,380	1,485	105



# Fiscal Year (FY) 2025 Projections

# FY 2025 Projections

- Full Time Equivalency (FTE) Projections
- State Allocation Projections
- Bills in the Legislature
- Expenditure projections for must fund items

# FTE Projections for FY 2025

- Project State FTEs and Running Start independently
- State FTEs
  - Unemployment rate
  - Annual population ages 15-44
  - Fall to Fall retention rate
- Running Start
  - Consistent growth trend since 2007
  - Saw first decline in 2019-20
  - Historical proportionate share of high school enrollments

# FY 2025 Projections (cont.)

- State FTE Target

State FTE Target	2023/24 Budget Target	2024/25 Budget Target	Difference
General FTE	4,219	4,683	464
BAS FTE	160	200	40
International FTE	50	60	10

- Running Start FTE Target

Running Start FTE Target	2023/24 Budget Target	2024/25 Budget Target	Difference
Running Start	1,380	1585	205

# FY 2025 Revenue projections

<b>FY 2025 Projected Revenue Changes</b>	<b>Budget</b>
Tuition – General FTES	\$1,408,611
Tuition – BAS FTES	267,486
Tuition – International FTES	65,925
Running Start	2,090,152
<u>Carryforward of revenue shortfall 23-24</u>	<u>(2,717,277)</u>
<b>Total Revenue - Operating</b>	<b>\$1,114,897</b>

# Other revenue considerations

- The College expects a small tuition increase, but it will likely be minimal
- The College anticipates a small Running Start rate increase
- Additional revenue projections will be added once values are known

# What else impacts the budget

- Salaries and benefits
  - Approximately 86% of budget is tied up in personnel costs
  - Faculty wages negotiated locally, classified statewide
  - State doesn't fully fund wage/benefit increases
- Must fund items
  - Contractual changes to salaries
  - Benefit changes passed on by the state
  - Other unavoidable or fixed cost increases
- Must fund items compound year over year, which means they will always increase, not go down

# State funded wage increases

- State does not fund increases for salary or benefit costs paid from non-state funds such as Running Start
- State does not fund locally bargained salary increases, or the compounding impact of them
- Since Running Start accounts for about 15% of our operating budget (not all is salary), we must locally fund the salary and benefit increased costs associated with that fund, and other local funds
- When enrollment is declining, and/or tuition rates aren't increasing at the same rate that expenditures are increasing, the college is unable to bring in sufficient revenue to cover the salary and benefit increases charged to non-state funds
- In other words, state wage increases for faculty and staff are an (un-fully) funded mandate



# What are must fund items?

- Must fund items include expenses the college is obligated to pay for, such as:
  - Employee increments
  - Tenure promotions
  - Unfunded portion of state-mandated wage adjustments
  - Minimum wage increases
  - Changes in state benefits (health care, retirement, family leave)
  - Doctoral and vocational stipends
  - Any new additional CTClick Costs

# FY 2025 Must Fund Estimates

FY 2025 Must Fund Estimates	Estimate
Increments - all groups	\$905,000
Tenure awards	30,000
Benefit cost increases	425,850
COLA increases	2,991,150
<u>Utility Rate Increase</u>	<u>147,846</u>
<b>Total must fund estimates</b>	<b>\$4,499,845</b>

\* These amounts will change based on Legislative changes

# FY 2025 Estimates Net

FY 2025 Estimates Net	Estimate
Tuition revenue change	\$1,742,022
Running Start revenue change	2,090,152
Revenue Backfill built into 23-24 Budget	(2,717,277)
<u>Estimate State Allocation Increase for must fund items</u>	<u>2,986,422</u>
<b>Total Change in Revenue</b>	<b>\$4,101,319</b>
<u>Must fund expenditure increases</u>	<u>4,499,845</u>
<b>Total Deficit 24-25 Budget</b>	<b>(\$398,526)</b>

\* These amounts will change based on legislative changes

# Projecting ahead

- Working together with the Budget Committee, Business Services developed a 5-year budget projection model based on historical 5-year and 10-year trends
- Trends indicate that expenditures will continue to increase, while the college is also projecting some gains in revenues
  - Expenditures are largely salary and benefits
  - Enrollment continues appears to be trending upward
- Based on these projections, the college will need to continue to closely monitor revenue, as well as reallocate funding to areas where needed based on the college's Strategic Plan

# 5 Year budget projection based on FY 2023

Using 10-Years Actual History

Revenue by Source	Budget 2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
State Appropriation	50,365,211	50,922,283	51,485,516	52,054,979	52,630,741	53,212,871
Tuition	14,820,411	14,786,576	14,752,819	14,719,139	14,685,535	14,652,008
Fees/Excess	4,173,059	4,054,918	3,940,122	3,828,576	3,720,187	3,614,868
Running Start	11,493,298	11,559,177	11,625,433	11,692,070	11,759,088	11,826,490
<b>Total Revenue</b>	<b>80,851,979</b>	<b>81,322,954</b>	<b>81,803,891</b>	<b>82,294,763</b>	<b>82,795,552</b>	<b>83,306,237</b>
Expense by Category	Budget 2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Salary & Benefits	72,996,090	74,026,718	75,071,897	76,131,834	77,206,735	78,296,813
Goods, Travel, Misc	10,092,760	10,082,419	10,072,088	10,061,767	10,051,458	10,041,158
Equipment	480,406	488,042	495,800	503,681	511,688	519,822
<b>Total Expenses</b>	<b>83,569,256</b>	<b>84,597,179</b>	<b>85,639,785</b>	<b>86,697,282</b>	<b>87,769,881</b>	<b>88,857,793</b>
<b>Difference</b>		<b>2024/25</b>	<b>2025/26</b>	<b>2026/27</b>	<b>2027/28</b>	<b>2028/29</b>
<b>Revenue less Expense</b>		(3,274,225)	(3,835,895)	(4,402,519)	(4,974,329)	(5,551,556)

\*These projections are based on a 10-year historical compounding average change

# FY 2025 Budget Slide 1

- Based on contractual obligations, our overall expenditures increase on average between \$1 - \$2 million per year in unfunded mandates
- We will continue to make adjustments to our assumptions as additional information is available
- The College currently has about \$9.4 million in uncommitted fund balance
- It is important to be forward looking as well as responsive

# FY 2025 Budget Slide 2

- The College has sufficient fund balance to continue to offset the current projected budget gap
- Projected numbers will be updated as we receive more information from the Legislature

# FY 2025 Budget – Next Steps Slide 1

- Executive Cabinet will begin identifying areas of need for potential investments that will allow the college to maximize our efficiency and better serve our students in alignment with our Strategic Plan
- All updated numbers and proposals will be shared with the Budget Committee in an open meeting in early spring to gather feedback



# FY 2025 Budget – Next Steps - Slide 2

- The Budget Committee will then provide feedback to Executive Cabinet on proposed budget
- Executive Cabinet will finalize proposed budget
- President will submit the budget to the Board of Trustees for their approval

# Final thoughts

- We will be watching the Legislature closely this year, monitoring any bills that impact the college (the session is scheduled to end next week)
- We likely will also continue to experience losses in our State Allocation particularly once other College's begin to increase their enrollment
  - We are the most under-enrolled college in our system, which makes us significantly over-funded
  - When the state allocation shifts funding to over-enrolled schools, Clark will lose FTE funding
- Staff and faculty across campus have been working extremely hard to bring back our students. We see those efforts paying off in our increase in student enrollments.
  - THANK YOU FOR ALL YOUR HARD WORK!!!!

# Budget Committee

## **AHE representative**

Jim Wilkins-Luton  
Valerie Cline

## **WPEA representative**

Courtney Braddock  
Jessica Cerise

## **Adjunct faculty member**

Shannon McCombs  
Jennifer Ward

## **Full-time faculty member**

Helen Martin  
Don Ludwig

## **Classified staff**

William Thompson  
Jennifer Lea

## **Part time/hourly staff**

Leslie Mahon  
Vacant

## **Administrator/exempt (non-EC member)**

Shelley Ostermiller  
Cecelia Martin

## **At large member**

Mike Silva  
Aaron Campbell (advising)

## **Student**

Zoe Thomas  
Alex Rose

## **Build Member**

Scarlett Knight  
Rhianna Johnson

## **VP of Operations (non-voting)**

Sabra Sand

## **Note Taker (non-voting)**

Traneesa Frazier

## **Director of Business (non-voting)**

Tanya Kerr

# Where to find information

- Budget documents (will include this presentation, and prior years info)
  - [Budget page on ClarkNet](#)
- Monthly budget status reports in the Board of Trustees packets
  - [Clark Monthly Board packets webpage](#)

# Questions?



# MEMORANDUM

DATE: March 6, 2024  
RE: **Sabbatical Requests for the 2024-2025 Academic Year**  
FROM: Dr. Tina Redd, Interim Vice President of Instruction  
TO: The Board of Trustees

Attached are sabbatical leave applications for the 2024-2025 academic year. The Professional Placement Advancement Committee (PPAC) recommended approval of the following applicants. In addition, I met with the Instructional Deans and the Associate Deans on March 6, 2024 and recommend the approval of the following applicants:

Faculty Member	Department	Quarters	Recommended Quarters
Becky Engle	ASL	1	Spring 2025
Travis Kibota	BIOL	2	Fall 2024 & Winter 2025
John Mitchell	MATH	1	Fall 2024
Paul Cassilas	MATH	1	Winter 2025

**TOTAL** **5**

I recommend that all of the applicants on this list be awarded sabbatical leave. My recommendation constitutes a total of five (5) quarters for the 2024-2025 academic year. Please let me know if you have any questions or need additional information.

Enclosures

Cc:

- File
- Human Resources

# Professional Placement and Advancement Committee (PPAC) Clark College Sabbatical Application



## Personal Information

1. Full Name: Rebecca (Becky) Engel
2. Department/Division: American Sign Language
3. Unit: BEECH
4. Please summarize your proposal in 1-3 sentences. Clark College is situated in an area with a large number of Deaf and hard of hearing students. Many of these students feel intimidated about the prospect of attending Clark, and they often struggle once they arrive. A transitional course similar to College 101, taught in ASL, could be extremely beneficial in their success.
5. Term(s) and Year Requested: 1 term; Spring 2025
6. Have you been awarded sabbatical previously? If yes, please list terms: No
7. What date did you begin teaching full time at Clark College? 2010 (?)

## Project Information

8. Provide a detailed description of your proposal, objectives, and plan (travel, formal study, research, where, etc.) According to the National Deaf Center, studies have shown that the Deaf and Hard of hearing student population attained lower levels of education than their hearing peers. Once enrolled at Clark, these students face an ongoing myriad of obstacles. I believe Clark has all the resources to ensure our Deaf and hard of hearing students succeed here and beyond. With the CARS New Course as a guide, it's my goal to create an introductory class for first term Deaf and Hard of hearing students that would be taught by a Teacher of the Deaf in the target language of American Sign Language. While it would be very similar to College 101, there are other critical bits of information that will assist this student population in being successful at Clark. SouthWest College for the Deaf, located on Howard College campus in Texas, is the only self-contained community college that serves deaf and hard of hearing students in the country. While mirroring a program like this would be a lofty goal, I believe by exploring their program, visiting the campus and learning what they have to offer could assist Clark and our deaf students. While most of my work would be completed locally, through email and videophone calls, I would like to involve the Deaf Education programs at Evergreen and Vancouver School Districts, as well as Center for the Deaf and Hard of Hearing Youth (Washington School for the Deaf). Ideally, a trip to Big Spring, TX, to see how they set up their program and align under the umbrella of Howard College.
9. Provide a detailed time sequence for completion of the project: An initial email has already been sent to National Deaf Center on Postsecondary Outcomes to set up an informational meeting in January 2024. I have also been in touch with Washington School for the Deaf, and I have the contact information for those at Vancouver and Evergreen School Districts. My goal is to initiate

conversations with at least one or two organizations per term leading up to the sabbatical. Additional research, meetings and visits can occur during sabbatical, as well as writing up a proposal.

10. Describe how your project will support Clark College's Core Themes (Academic Excellence, Social Equity, Economic Vitality, and/or Environmental Integrity) Disabilities do not discriminate. With that in mind, our Deaf and Hard of hearing population consist of first generation students, students of color, veterans and students with additional disabilities. Such a course would strengthen ties with Advising, ASCC, Financial Aid, Instructional Faculty, Tutoring, Counseling & Health, Diversity Center and DSS. Such a project would support both Academic Excellence and Social Equity. It would allow the college to student-ready and align with guided pathways.
11. Describe how your sabbatical activities will benefit yourself (consider increased knowledge in discipline, skills, inspiration or perspective, ability to produce new work and/or strengthening understanding for issues related to diversity, equity, and inclusion) Teaching College 101 has given me a deeper understanding to not only what Clark has to offer, but also what our deaf and hard of hearing students are missing out on. I see my students with disabilities struggle and I know our deaf and hard of hearing students are struggling just as much, plus there's the language barrier that results in so much information being lost. This sabbatical project would tie my ASL teaching background and experience with my Deaf Education degree. I can think of no better way to bring the two together; to serve our Deaf and Hard of Hearing students and create an inclusive community for them at Clark. Just by teaching College 101 this term, I've felt a sense of rejuvenation and I feel there's so much potential if we could create a transitional type of course for our deaf students in ASL.
12. Describe how your sabbatical activities will benefit your department: Of 5 faculty members in the ASL Department, four of us have MEd in Deaf Education. But we have all experienced obstacles at the college/universities we attended, and we can relate to students who struggle at Clark. Faculty within the English and Math Departments historically have asked us for advice on how to work with and teach our deaf and hard of hearing students. Creating a transitional course for our Deaf and hard of hearing students will strengthen our ties with other instructional units.
13. Describe how your sabbatical activities will benefit the student experience at Clark College: By learning this information directly in their natural language, American Sign Language (rather than through English and an interpreter), students will be better equipped to learn, navigate the college system, and know where to find resources they may need. They will also benefit the student by having direct communication, in a small group setting, which is what the majority of deaf and hard of hearing students experience in the K-12 system.
14. Has any work been done specifically in preparation for the sabbatical leave project? I have been in touch with National Deaf Center on Postsecondary Outcomes to set up an informational meeting in January 2024. I have done research on various programs throughout the country, including Gallaudet University and National Technical Institute of the Deaf (under RIT), to see which might be a good model for Clark College to follow.
15. List any institutions or other organizations which will be affiliated with the project: Vancouver and Evergreen School Districts, Center for the Deaf and Hard of Hearing Youth (Washington School for the Deaf), SouthWest College for the Deaf, and Washington State Department of Social and Health Services (Vocational Rehabilitation), Washington Advocates of the Deaf and Hard of Hearing, and National Deaf Center on Postsecondary Outcomes.
16. List all expenses and modes of payment (e.g. grants, organization sponsorships, stipends, college funding, IFDF, personal funding, etc. While most work can be done via email or videophone, I



would plan a visit to SouthWest College of the Deaf in Big Spring, TX to view how their classes are set up and meet some teachers. Funds for travel; flight, car and lodging, can come from my IFDF funds. At today's rate, allowing for potential increases in 2025, I estimate this trip would cost \$1200-1500.

Documentation and Terms

Please upload a Word Document or PDF "Statement of Support" from your Dean (question 2 in Canvas)

Please upload any supporting documentation including validation of funds awarded by outside organizations (question 2 in Canvas)

By checking the "confirm" box below you have completed the following

- Reviewed Article V – Leaves, Section N – Sabbatical Leave – of the AHE Contract for details and policies related to sabbatical leave (linked in the PPAC/Sabbatical Canvas Shell)
- Discussed your sabbatical leave with your Dean and Dept. Head/Division Chair
- Attached any supporting documentation in question 2 in Canvas

X

By checking this box I confirm that I accept the following policies:

- I understand that, should I fail to meet the provisions of returning to the College as specified in the Sabbatical Leave Policy, I will reimburse the College for the amount of remuneration received during the period.
- I understand that I am obligated to carry out the activity/activities outlined in the Sabbatical Leave Proposal or must gain approval for an alternative.
- I understand that I am required to submit a Post-Sabbatical Report no later than the end of the first term after returning to the College. Email [ppac@clark.edu](mailto:ppac@clark.edu) for details on the expectations of the Post-Sabbatical Report.
- I understand that no additions, revisions, or editing of my application will be accepted after the final application deadline.

X

# Professional Placement and Advancement Committee (PPAC) Clark College Sabbatical Application



## Personal Information

1. Full Name: **Travis Kibota**
2. Department/Division: **Biology Department/Life Science Division**
3. Unit: **STEM-WPTE**
4. Please summarize your proposal in 1-3 sentences. **I propose to continue an analysis of the impacts of course-taking patterns on bachelor's degree attainment for transfer-intent Biology students. This analysis will provide the base of evidence upon which a five-year Biology transfer pathways strategic plan will be developed.**
5. Term(s) and Year Requested: **Fall 2024 and Winter 2025**
6. Have you been awarded sabbatical previously? If yes, please list terms: **No**
7. What date did you begin teaching full time at Clark College? **September 1994**

## Project Information

8. Provide a detailed description of your proposal, objectives, and plan (travel, formal study, research, where, etc.) **My sabbatical request is to dedicate focused time on an analysis of the impacts of pre-transfer course-taking patterns on equity in bachelor's degree attainment among Clark College transfer-intent biology students. PROJECT OUTCOMES: I expect to identify pre-transfer Biology-intent course-taking patterns that are more likely, and those that are less likely, to lead to bachelor's degree attainment and whether these patterns differ among different student groups (similar to Wang, 2020). This will provide a well-reasoned, data-informed basis for further equity-centered development of the Clark College STEM transfer pathways strategic plan. PROJECT PLAN: I am the lead on a Clark College team, partnered with a WSU-Vancouver team, that is focused on improving the Clark-WSUV Biology transfer pathway (our partnership is called the Southwest Washington Regional Alliance for Inclusive Science Education, SW RAISE). Preliminary SW RAISE analyses revealed that Biology-intent students who transfer without first completing required lower division science courses (BIOL& 221-223 and CHEM& 141-143) have 29% success in earning Biology bachelor's degrees whereas among students who complete the required lower division science courses prior to transfer, 70% successfully earn Biology bachelor's degrees. This, in itself, was not surprising and affirmed the high quality of our Biology and Chemistry courses. Much more surprising was the discovery that roughly 50% of Biology-intent students DO NOT enroll in the lower division science requirements prior to transfer. Thus, not only do HALF of Biology-intent students NOT take the science courses that would set them up for successful transfer, we realized that we DO NOT know how or where or when to communicate with and advise those students. To**

develop a more fine-grained analysis of who the Clark College Biology-intent students are, our Office of Assessment and Institutional Research compiled a dataset of all of the Clark College students who filed intent to earn a Biology associate's degree from 2010 to 2023 (a sample size of 1981 students). For each student, we have socioeconomic information, zip code, grades for all courses they took, and whether or not they successfully earned Biology or other associate degrees. My sabbatical time will be spent analyzing these data to search course-taking patterns that lead to equity gaps in transfer and Bachelor's degree attainment. It will be based on STEM transfer student course-taking analyses of national data, performed by Dr. Xueli Wang (from her book, *On My Own*, 2020). This Clark College Biology Transfer Student Course-Taking Analysis will guide data-informed improvement projects.

9. Provide a detailed time sequence for completion of the project: **January to June 2024: Work with the Clark College Office of Planning and Effectiveness to validate existing Biology-intent student database and to compile a dataset of Clark College Biology transfer students to WSU-Vancouver (either through a data sharing agreement or by way of the National Student Clearinghouse). Confer with quantitative educational data researchers (Xueli Wang, University Wisconsin-Madison and Rachel Henderson, Michigan State University) on course-taking analytical methodology. September 2024 through February 2025 (sabbatical leave): Course-taking data clean up, validation, and analysis. March 2025: Compilation of analysis results and conclusions.**
10. Describe how your project will support Clark College's Core Themes (Academic Excellence, Social Equity, Economic Vitality, and/or Environmental Integrity) **My project will support the core theme of Social Equity by contributing to the knowledge base on STEM equity gaps locally, at Clark College, and nationally, within the STEM education ecosystem. Preliminary data indicate that historically underrepresented students are more likely to not enroll in required lower division science classes (53.8% of Historically Underrepresented Students of Color (HUSOC) compared to 42.6% of non-HUSOC students; 53.1% of Low-Income Students compared to 45.3% of non-Low Income Students). Learning about student course-taking, in a more fine-grained manner, will help us to identify barriers in our pathways (which may vary among different student groups). Most directly, my project will support the Equity-Centered Strategic Plan--Institutional Effectiveness and Equity Priority 2: Practice equitable, data-informed transparent decision-making; Community Partners Engagement Priority 1: Create educational pathways that reduce barriers to student achievement in collaboration with educational partners; Equitable Student Experience Priority 2: Partner to remove barriers and provide inclusive support to increase student success, Priority 3: Improve student transfer and employment opportunities.**
11. Describe how your sabbatical activities will benefit yourself (consider increased knowledge in discipline, skills, inspiration or perspective, ability to produce new work and/or strengthening understanding for issues related to diversity, equity, and inclusion) **I will learn new analytical techniques. I expect that this analysis may lead to publication in an undergraduate education journal and will help me to become further engaged in STEM undergraduate educational leadership at the state and national level. I participated on the conference planning team for the Transforming Institutions conference (organized jointly by the Accelerating Systemic Change Network ([ascnhighered.org](http://ascnhighered.org)) and the Association of Public Land Grant Universities**

(apl.u.org)) and the HHMI IE3.0 2023 National Convening, and I expect that my sabbatical project will contribute to more opportunities for this type of national service.

12. Describe how your sabbatical activities will benefit your department: **All project activities are intended to develop an evidence-based approach for improving educational attainment for the various populations of students that the Biology department serves. Biology transfer students are the direct focus of my sabbatical project. The learning that I accomplish will provide experience with techniques to analyze factors affecting goal attainment in our other areas of departmental service, such as to our pre-Nursing/pre-Dental Hygiene students, and towards other STEM-based career pathways.**
13. Describe how your sabbatical activities will benefit the student experience at Clark College: **During the 13-year period from 2010 to 2022, 1981 students filed intent to earn a biology associate degree (150 students per year). Based on preliminary WSU-Vancouver transfer analysis, the actual annual number of Clark College “biology-intent students” may be considerably higher. If we are currently only serving half of the students that we should be serving, then identifying where the unserved half is located, and developing initiatives to better support them will not only benefit those students but also has the potential to double our high-demand STEM FTES production.**
14. Has any work been done specifically in preparation for the sabbatical leave project? **We have compiled a database of 1981 biology-intent students, their demographic characteristics, and their course loads from 2010-2023. We are working closely with colleagues at WSU-Vancouver that will enable us to map out the educational fates of our biology-intent students to determine whether or not they transfer and if they are successful in earning a Biology bachelor’s degree after transfer. I am working, in partnership, with quantitative educational researchers from many universities (Michigan State University, Western Michigan University, Portland State University, University of California-Irvine) who can provide advice and support for this project.**
15. List any institutions or other organizations which will be affiliated with the project: **Washington State University-Vancouver Natural Science Departments (Gretchen Rollwagen-Bollens, Associate Professor School for the Environment; Deb Wilmington, Biological Sciences) and Lower Columbia College (Louis LaPierre, Biology; Devin Hendricks, Career Pathways Advisor).**
16. List all expenses and modes of payment (e.g. grants, organization sponsorships, stipends, college funding, IFDF, personal funding, etc.) **EXPENSES: Supplementation to Bring Teaching Salary up to 100% (roughly \$18,000 plus \$5,000 benefits); Laptop and secure VPN (roughly \$3000). Total expenses: \$21,000. MODES OF PAYMENT: University of Washington Community College Research Initiatives grant = roughly \$20,000; Howard Hughes Medical Institute Grant by way of WSU-Vancouver = roughly \$14,000.**

### Documentation and Terms

Please upload a Word Document or PDF “Statement of Support” from your Dean (question 2 in Canvas)

Please upload any supporting documentation including validation of funds awarded by outside organizations (question 2 in Canvas)

By checking the “confirm” box below you have completed the following

- Reviewed Article V – Leaves, Section N – Sabbatical Leave – of the AHE Contract for details and policies related to sabbatical leave (linked in the PPAC/Sabbatical Canvas Shell)
- Discussed your sabbatical leave with your Dean and Dept. Head/Division Chair
- Attached any supporting documentation in question 2 in Canvas



By checking this box I confirm that I accept the following policies:

- I understand that, should I fail to meet the provisions of returning to the College as specified in the Sabbatical Leave Policy, I will reimburse the College for the amount of remuneration received during the period.
- I understand that I am obligated to carry out the activity/activities outlined in the Sabbatical Leave Proposal or must gain approval for an alternative.
- I understand that I am required to submit a Post-Sabbatical Report no later than the end of the first term after returning to the College. Email [ppac@clark.edu](mailto:ppac@clark.edu) for details on the expectations of the Post-Sabbatical Report.
- I understand that no additions, revisions, or editing of my application will be accepted after the final application deadline.



## Professional Placement and Advancement Committee (PPAC) Clark College Sabbatical Application



### Personal Information

1. Full Name: John Mitchell
2. Department/Division: Mathematics
3. Unit: WTPE+STEM
4. Please summarize your proposal in 1-3 sentences.

Data Science is emerging as one of the highest demand fields over the next ten years. My proposal is for a one-term sabbatical to further develop my data science expertise; to develop introductory data science activities for our statistics courses, and to assess how Clark College can develop new courses or programs – or adapt existing ones – to attract those wishing to pursue careers in data science or related fields.

5. Term(s) and Year Requested: Fall 2024
6. Have you been awarded sabbatical previously? If yes, please list terms: Fall 2015
7. What date did you begin teaching full time at Clark College? 09/01/2004

### Project Information

8. Provide a detailed description of your proposal, objectives, and plan (travel, formal study, research, where, etc.)

#### **Background**

The field of “data science” looks at how data – and increasingly, large-scale, multivariable data – can be used to guide decision making. It is a broad, interdisciplinary field, incorporating mathematical methods (primarily from statistics and linear algebra), programming skills (in languages such as “R” and “python”), and domain-specific expertise. The demand for data scientists is projected to grow by 35% over the next decade, and with a median salary in Washington state of over \$130K [1], it’s an exciting and rewarding field to pursue.

To meet this need, most four-year colleges in the Pacific Northwest have developed undergraduate or graduate programs in data science or data analytics<sup>1</sup> (see e.g. [2]) and several local community colleges have developed transfer degrees (such as [3]). There is an opportunity and need for our college to also adapt its courses and programs to meet this growing demand.

### **Proposal and Objectives**

This proposal is for one-term of sabbatical leave in Fall 2024 to explore data science techniques and statistical methods; to develop activities for our students; and to compile a report on trends in data science education for our college faculty and staff.

Specific objectives:

- Further develop my data science expertise through self-study and online course work, so I can contribute expertise to future Clark College initiatives.
- Develop a set of course activities for our introduction to statistics (MATH& 146) course<sup>2</sup> to expose students to basic data science methods.
- Explore how Clark College could adapt its programs and courses to attract those wishing to pursue careers in data science and develop a report outlining options.

### **Plan for the Sabbatical Period**

Prior to the sabbatical I will use my personal time to develop a foundation in data science skills and its statistical methods. This will ensure that I can make optimal use of the sabbatical period. Details of the work completed, and further work planned are listed under item 14.

During the sabbatical I will focus on the three objectives outlined above.

The first area of focus is to deepen my data science expertise. I anticipate my primary study areas will be current statistical learning methods: looking at how state-of-the-art statistical methods can be applied to large, multidimensional data sets. I will also investigate tools to apply these methods, particularly those that show potential for use in classroom activities.

The second area of focus is developing course activities for MATH& 146, our introduction to statistics course. Data science can be an intimidating field, with complex tools that often need programming expertise in R or python. However, I believe it is possible to develop activities that expose students to elementary data science techniques without requiring technical expertise – indeed, many high schools are already doing so. I will develop a set of suitable activities or adapt open-source options as appropriate. I will also ensure that these activities resonate with systemically non-dominant (SND) students by ensuring that they prominently feature data sets

---

<sup>1</sup> The terms “data science” and “data analytics” tend to emphasize different aspects of the discipline, but there is a lot of variation – and overlap - in practical usage. For simplicity and brevity the term “data science” will generally be used in this proposal to refer to the field.

<sup>2</sup> MATH& 146 is Clark College’s highest-demand college-level math course: it has a common course curriculum across Washington and thus is accepted for transfer by many regional degree programs.

with an equity-minded focus – there are many inspiring examples that I would love our students to be aware of.

While statistics activities are the primary focus, I will also look for suitable activities to use in my linear algebra (MATH 215) classes: applying matrix methods from that course to large, real world data sets.

The third component of the sabbatical plan is to perform a comprehensive assessment of regional data science programs at third level institutions and develop a set of models for how data-science (or data-science related) courses and programs could look at Clark College in the future.<sup>3</sup> The results will be compiled into a report to share with faculty and administration that will hopefully inform future data science initiatives.

### **Summary of Sabbatical Deliverables**

In addition to the required post-sabbatical report, I will deliver:

- A “Introduction to Data Science” canvas module, containing introductory videos and set of data science activities, suitable for incorporation into MATH& 146 – either as a regular part of the course or for extra credit. The activities can be used in a variety of modalities (face-to-face, hybrid, or fully online).
- A report assessing regional data science programs and future trends and outlining potential course and program models for Clark College to develop in the future.

### **Post-Sabbatical work (Winter 2024 and beyond)**

- Prototype the Data science module and activities in my statistics classes: class-test and fine-tune them, including class surveys to get feedback.
- Host the module in a shareable Canvas shell for use by other teachers.
- Host an “Introduction to Data Science” seminar for faculty wishing to develop their own skills. The seminar will be supported by additional materials in Canvas for further self-study.
- Distribute the assessment of data science programs.
- Organize interdepartmental meetings to discuss the assessment and plan future work.

### **References**

- [1] Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Data Scientists, at <https://www.bls.gov/ooh/math/data-scientists.htm>.
- [2] WSU Data Analytics degree program, <https://data-analytics.wsu.edu/>.
- [3] Green River CC, Data Analysis and Software development, AAS-T.
- [4] Mathematics for Machine Learning (Deisenroth, M.P. et al., 2020). Cambridge University Press.
- [5] Introduction to Statistical Learning with R (Hastie, G. et al., 2021). Springer.
- [6] Introduction to Data Science: Data Wrangling and Visualization with R (Irisarrry, R.A. et al., 2019). CRC Press.
- [7] Advanced R (Wickham, H., 2019). CRC Press.

---

<sup>3</sup> Our BAS in cybersecurity has one such course: NTEC 365: Big Data and Analytics Foundation, which looks specifically at data analytics as it relates to computer networking applications.



9. Provide a detailed time sequence for completion of the project:

**Winter/Spring/Summer 2024**

Complete pre-sabbatical preparatory work. See item 14 for details.

**Fall 2024**

The projected timelines for the deliverables are:

- Weeks 1 – 12 (throughout the term): Ongoing study of statistical learning methods; investigation of applications and tools.
- Weeks 1 – 3: Survey of local courses and outreach to other data science teachers.
- Weeks 4 – 6: Complete design of “Introduction to Data Science” module and introductory videos (such as an introduction to R).
- Weeks 7 – 11: Completion of activities – approximately one per week, and integration into module.
- Weeks 9 – 12: Compilation of report assessing trends in data science education and potential directions for Clark College.

**Winter 2024 (post-sabbatical)**

- Week 2: Distribution of assessment and invitation to meet in week 4.
- Week 4: Interdepartmental meeting and discussion: schedule follow up actions as needed.
- Week 6 (Projected): Seminar on data science for STEM faculty. Additional resources for self-study will be hosted in Canvas.

10. Describe how your project will support Clark College’s Core Themes (Academic Excellence, Social Equity, Economic Vitality, and/or Environmental Integrity)

**Academic Excellence:** By ensuring that our courses and programs include state-of-the-art data science methods, and thus are relevant - and inspiring - to future data scientists.

**Social Equity:** As a new, interdisciplinary field, data science has opportunities for those from systemically non-dominant backgrounds to forge an exciting career. I will develop equity-minded data science activities that will encourage them to explore this possibility.

**Economic Vitality:** By ensuring that in the future Clark College taps into the enrollment potential of those interested in pursuing data science or related careers.

11. Describe how your sabbatical activities will benefit yourself (consider increased knowledge in discipline, skills, inspiration or perspective, ability to produce new work and/or strengthening understanding for issues related to diversity, equity, and inclusion)

I was a first-generation college student; neither of my parents went to high school, but they believed in the value of an education and encouraged me. I have been fortunate enough to have an education and believe in the transformative value of one. I love teaching mathematics and am increasingly drawn to mathematics courses – such as statistics and linear algebra – that connect with real-world applications to data. By further expanding my skills to include state-of-the-art data science methods and applications, this sabbatical would help me take my teaching and my courses to the next level: to not just motivate students with my passion for mathematics, but to inspire them with my love of the wonderful ways mathematical skills – coupled with programming skills – allow us to analyze, visualize, and extract meaning from complex data.

12. Describe how your sabbatical activities will benefit your department:

By providing our department with high-quality introductory data science materials to plug into their courses and helping them develop their expertise. This will ensure our department is ready to play its part in future mathematics curriculum enhancements that incorporate data science.

13. Describe how your sabbatical activities will benefit the student experience at Clark College:

In the near term, it will provide students richer experiences in their statistics course, by incorporating real-world data science techniques and tools into it. In the longer term, I hope my work will lead to programs and courses that attract and inspire those intending on careers in data science and related fields.

14. Has any work been done specifically in preparation for the sabbatical leave project?

I have been investing personal time in 2023 to build a foundation in data science tools and mathematical techniques and will continue to do so in 2024. Preparation completed and planned work include:

### **2023**

- Studied basic mathematical foundations of data science and machine learning ([4],[5]).
- Developed basic programming skills in “R” ([6],[7]) and “python”. While I will continue to develop python skills, my primary focus is on “R” – a widely used, open-source statistical analysis language. Further, both R and “Rstudio” (the hosting environment that is used to run R programs, display graphs, and so on) have excellent accessibility support, and have been approved for use at Clark College.
- Joined the recently formed Washington SBCTC “Data Science Faculty Learning Community”, for mathematics teachers interested in developing their expertise in the field.

**2023 (continued)**

- After extensive research on low-cost, high-quality course offerings suitable for those with a strong mathematics background, I am currently taking a 10 course “Data Science Specialization” series online (Johns Hopkins/Coursera) in my personal time. The suggested timeline for the course series is 7 months with a 10 hour/week investment. I am taking the peer-reviewed, not-for-credit track. I have completed 25% of the program including the “R programming” course.

**2024 – winter, spring, and summer terms**

- Complete the “Data Science Specialization” or other graduate-level equivalent courses, including courses in topics such as cleaning up data, machine learning<sup>4</sup>, regression models and statistical inference. I will augment the courses with further study on the mathematical underpinnings of data science and will explore connections with our statistics and linear algebra courses.
- Further self-study in machine learning techniques, focusing on statistical learning.
- Participation in the SBCTC “Data Science Faculty Learning Community” and building a community of like-minded teachers.
- Outreach to other departments within STEM to initiate discussion and identify faculty interested in future data science initiatives.

15. List any institutions or other organizations which will be affiliated with the project:

None, though the learning community (see item 14) will be a valuable resource.

16. List all expenses and modes of payment (e.g. grants, organization sponsorships, stipends, college funding, IFDF, personal funding, etc.)

Anticipated costs will be within my IFDF allocation for 2024/25: continued enrollment in Coursera data science courses (\$196 for four months), additional textbooks (approximately \$175).

I may decide to convert the courses to “for-credit” to obtain an official certificate of completion or enroll in other equivalent courses for credit. If so, I will use personal funds to do so.

---

<sup>4</sup> The field of “machine learning” looks at how algorithms can be developed – often using statistical methods - to extract meaning from data. Data scientists use machine learning algorithms as part of their toolkit. A basic machine learning algorithm is linear regression – finding the line of best fit to a data set - as covered in a basic statistics course.

## Documentation and Terms

Please upload a Word Document or PDF “Statement of Support” from your Dean (question 2 in Canvas)

Please upload any supporting documentation including validation of funds awarded by outside organizations (question 2 in Canvas)

By checking the “confirm” box below you have completed the following

- Reviewed Article V – Leaves, Section N – Sabbatical Leave – of the AHE Contract for details and policies related to sabbatical leave (linked in the PPAC/Sabbatical Canvas Shell)
- Discussed your sabbatical leave with your Dean and Dept. Head/Division Chair
- Attached any supporting documentation in question 2 in Canvas



By checking this box I confirm that I accept the following policies:

- I understand that, should I fail to meet the provisions of returning to the College as specified in the Sabbatical Leave Policy, I will reimburse the College for the amount of remuneration received during the period.
- I understand that I am obligated to carry out the activity/activities outlined in the Sabbatical Leave Proposal or must gain approval for an alternative.
- I understand that I am required to submit a Post-Sabbatical Report no later than the end of the first term after returning to the College. Email [ppac@clark.edu](mailto:ppac@clark.edu) for details on the expectations of the Post-Sabbatical Report.
- I understand that no additions, revisions, or editing of my application will be accepted after the final application deadline.



# Professional Placement and Advancement Committee (PPAC) Clark College Sabbatical Application



## Personal Information

1. Full Name: Paul Casillas
2. Department/Division: Mathematics
3. Unit: STEM/WPTE
4. Please summarize your proposal in 1-3 sentences. Many of our students do not know how to be successful in their math classes. My project is to draft a set of documents, activities, and reminders that address student attributes/study skills with an emphasis on mathematics learning. Instructors will share these with students at a number of key points before, during and after the quarter.
5. Term(s) and Year Requested: Winter 2025
6. Have you been awarded sabbatical previously? If yes, please list terms: Yes; winter, spring 2002
7. What date did you begin teaching full time at Clark College? 1990

## Project Information

8. Provide a detailed description of your proposal, objectives, and plan (travel, formal study, research, where, etc.) My plan is to draft and make accessible a number of documents and activities that mathematics instructors can share and work through with students at key times throughout the quarter. The majority of our math students have little idea what they need to do to be successful in a mathematics course. This problem has only increased as the College enrolls more and more students who were in middle and high school during the pandemic, and has now reached a critical juncture. Simply put, students are having a difficult time engaging in the myriad behaviors needed to succeed in math classes. In most cases, this difficulty is not due to lack of effort on the part of the students, but instead is simply because they have never been taught effective learning skills, and have not cultivated attributes that will help them be successful. My sabbatical proposal is to create a wide variety of documents and activities that instructors can share and work through with students at key times during the quarter. The objective of the proposal is to teach math students how to study, learn, and reflect effectively and efficiently, and practice these skills throughout the quarter. My project will address five general areas with emphasis on the teaching and learning of mathematics:
  1. Current and future course selection, and meeting and reviewing content prerequisites
  2. In-class and pre- and post-class study attributes
  3. Completing mathematics assignments
  4. Exam preparation and exam follow-up
  5. Seeking help

A sample of specific topics to be addressed include . . . What to do before a quarter starts; The importance of reading and understanding the course syllabus; What to do before beginning, and after completing, written and online homework; How to take notes and actively participate in class lessons – both online and face-to-face; How to communicate mathematics clearly and correctly; How to outline course material; How to ask questions; How to engage in “productive struggle;” How to self-monitor course learning and effort; How to prepare for exams; How to engage in productive follow-up after an exam; How to use instructor office hours productively; Where, and where not, to get help; Availability of campus-wide resources such as the Tutoring Center, Advising, Career Center, Success Coaches, MESA, Counseling, etc.

9. Provide a detailed time sequence for completion of the project: I will draft documents and activities throughout the ten-weeks of sabbatical, with the plan of addressing one general area every two weeks. I will share my work with members of the Mathematics Division and other interested faculty in the two quarters following the end of the sabbatical.
10. Describe how your project will support Clark College’s Core Themes (Academic Excellence, Social Equity, Economic Vitality, and/or Environmental Integrity)  
ACADEMIC EXCELLENCE: Students often need to be taught how to be good students. Even earnest students often spend an inordinate amount of time engaging in practices that have little to no impact on their success in a math class. The documents and activities drafted in my project should help all mathematics students become better, more engaged learners – and help instructors become more engaged teachers and facilitators as well.  
SOCIAL EQUITY: This is the major thrust on the project. Some students come to Clark knowing how to navigate the College, classroom and learning environment, but many, many students do not – simply because of lack of information. This project will address this head-on. The goal is to teach skills and student attributes that ALL students can use to be successful in mathematics courses at any level.
11. Describe how your sabbatical activities will benefit yourself (consider increased knowledge in discipline, skills, inspiration or perspective, ability to produce new work and/or strengthening understanding for issues related to diversity, equity, and inclusion) Simply put, my project will make me a better teacher and facilitator. I will also help me think carefully about those key times and course “mile markers” where students need help with study and engagement skills. Additionally, it will help me find areas in my own teaching and student engagement that implicitly and explicitly introduce bias or hinder equitable teaching practices.
12. Describe how your sabbatical activities will benefit your department: The Mathematics Division cares deeply about student success. The items I produce during the sabbatical should help all math instructors become better, more engaged teachers, and should help them reflect on their own teaching and learning practices.
13. Describe how your sabbatical activities will benefit the student experience at Clark College: The project should help all math students become better, more active learners. It should help students complete their math courses - and hence degrees or certificates – in a more timely manner, should increase the amount of material they master in their math courses, should help them in courses where they need to apply the mathematics they learned, and should give them a more positive experience at the College. Further, the skills students learn as a result of the project will be transferable to courses throughout the College and will be useful for life-long learning as well.

14. Has any work been done specifically in preparation for the sabbatical leave project? For many years, I have taught numerous “Math Success Sessions” to students that focus on some of the core habits students need to succeed in a math course. This project will be a major extension to these topics. Also, over the past many months, I have asked math instructors to detail skills, habits, and attributes that they wish their students knew and practiced. I’ve drafted a list of these and have also made a rough draft of ways to help students attain these skill, habits, and attributes. A major part of the project will be to add to this list and craft detailed items that will help instructors and students address these areas. Further, as part of an Outcomes Assessment project, I have already completed some documents relating to communicating mathematics clearly and correctly, and as part of the Math Success Sessions, I’ve drafted documents on time management and several study skills.
15. List any institutions or other organizations which will be affiliated with the project: I will use some information from the National Council of Teachers of Mathematics, The American Mathematical Association of Two-Year Colleges, and the Mathematical Association of America. However, none of these organizations will be directly affiliated with the project. I will also work with Clark College Advising.
16. List all expenses and modes of payment (e.g. grants, organization sponsorships, stipends, college funding, IFDF, personal funding, etc.) Other than some printing costs – paid for by the Mathematics Division – there will be no costs associated with this project.

#### Documentation and Terms

Please upload a Word Document or PDF “Statement of Support” from your Dean (question 2 in Canvas)

Please upload any supporting documentation including validation of funds awarded by outside organizations (question 2 in Canvas)

By checking the “confirm” box below you have completed the following

- Reviewed Article V – Leaves, Section N – Sabbatical Leave – of the AHE Contract for details and policies related to sabbatical leave (linked in the PPAC/Sabbatical Canvas Shell)
- Discussed your sabbatical leave with your Dean and Dept. Head/Division Chair
- Attached any supporting documentation in question 2 in Canvas



By checking this box I confirm that I accept the following policies:

- I understand that, should I fail to meet the provisions of returning to the College as specified in the Sabbatical Leave Policy, I will reimburse the College for the amount of renumeration received during the period.
- I understand that I am obligated to carry out the activity/activities outlined in the Sabbatical Leave Proposal or must gain approval for an alternative.
- I understand that I am required to submit a Post-Sabbatical Report no later than the end of the first term after returning to the College. Email [ppac@clark.edu](mailto:ppac@clark.edu) for details on the expectations of the Post-Sabbatical Report.
- I understand that no additions, revisions, or editing of my application will be accepted after the final application deadline.

