

The background is a dark, textured surface with various white sketches. In the top left, there's a large 'V' and a globe. Below the globe is a microscope. In the bottom left, there's a stack of books. In the bottom center, there's an open book with some handwritten text. In the bottom right, there are mathematical symbols like a percentage sign, an exclamation mark, and a less-than sign.

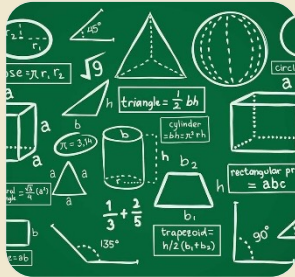
Math, Sciences, and Business

Carol Hernandez, EdD.

College of Marin's Mission

- College of Marin's commitment to educational excellence is rooted in providing equitable opportunities and fostering success for all members of our diverse community by offering:
 - preparation for transfer to four-year colleges and universities
 - associate degrees and certificates
 - career technical education
 - basic skills improvement
 - English as a second language
 - lifelong learning
 - community and cultural enrichment
- College of Marin responds to community needs by offering student-centered programs and services in a supportive, innovative learning environment that promotes social and environmental responsibility.

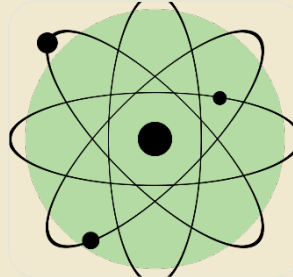
Area Departments and Programs



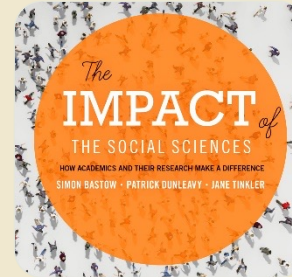
Math



Biology
Geography
Geology
Natural History
Environmental
Sciences



Chemistry
Physics
Engineering
Astronomy
Computer
Science



Economics
Ethnic Studies
History
Political
Sciences



Anthropology
Sociology
Psychology
Behavioral
Sciences



Business
Real Estate
Hospitality

Area Departments (Faculty and Staff)

Math	Life and Earth	Physical Sciences	Social Sciences	Behavioral Sciences	Business
<ul style="list-style-type: none">• 9 FT• 3 PT• 2 Math Instructional Specialist• 1 Math Lab Coordinator	<ul style="list-style-type: none">• 9 FT• 8 PT• 3 Laboratory Technicians	<ul style="list-style-type: none">• 7 FT• 11 PT• 2 Laboratory Technicians	<ul style="list-style-type: none">• 3 FT• 10 PT	<ul style="list-style-type: none">• 6 FT• 5 PT	<ul style="list-style-type: none">• 4 FT• 9 PT

Summary of Math, Sciences, and Business Faculty and Staff

One Administrator

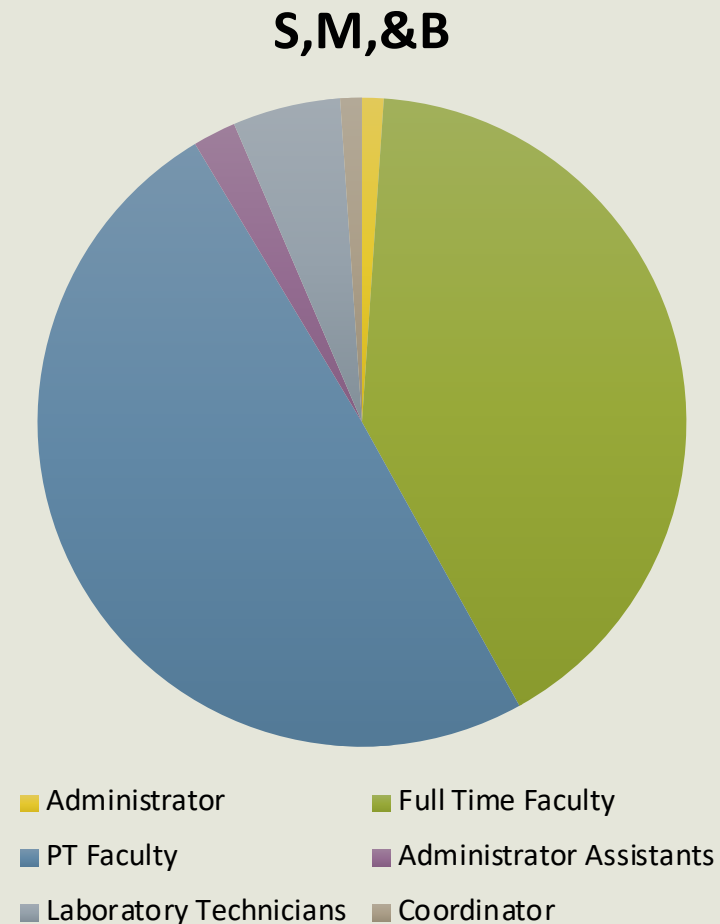
38 Full Time Faculty

46 Part Time Faculty

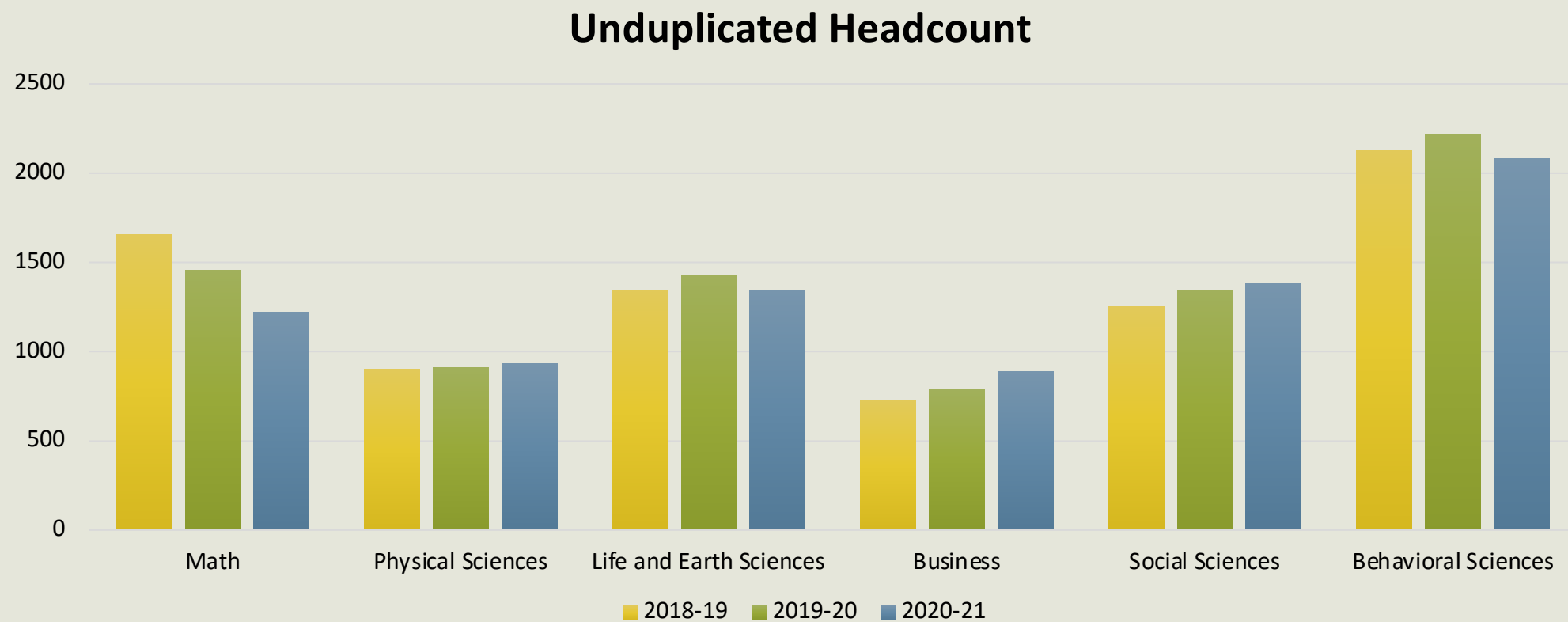
2 Administrative Assistants

5 Laboratory Technicians

One Coordinator



Unduplicated Headcount Across Departments



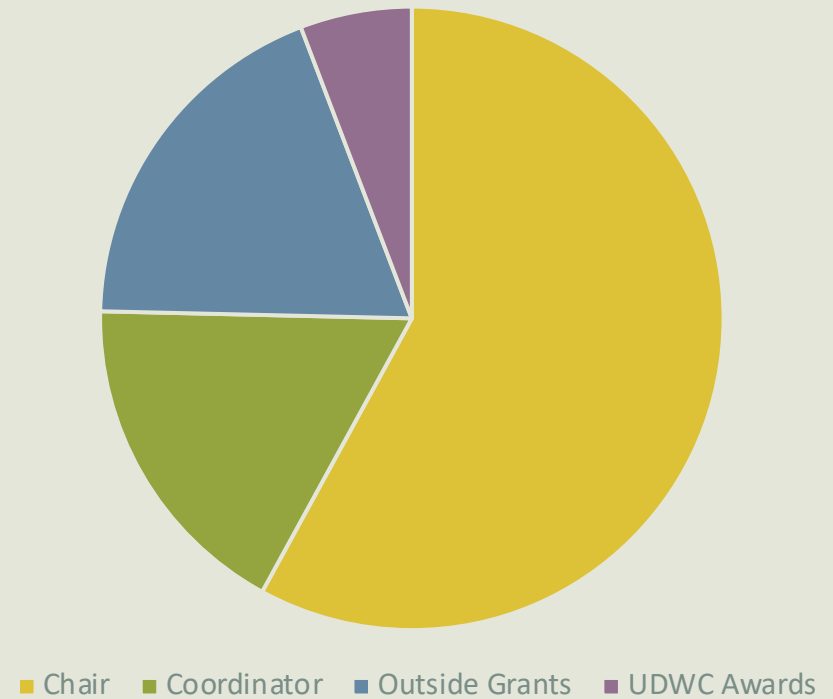
Instructional Units

Department	Fall	Spring	Summer	Total
Behavioral Sciences	123.43	129.43	27	279.86
Social Sciences	94	97	18	209
Life and Earth	192.11	186.11	19.47	397.69
Math	168.5	179.24	21	368.74
Physical Sciences	166.72	168.93	27.45	363.1
Business	103	92.5	20.5	216

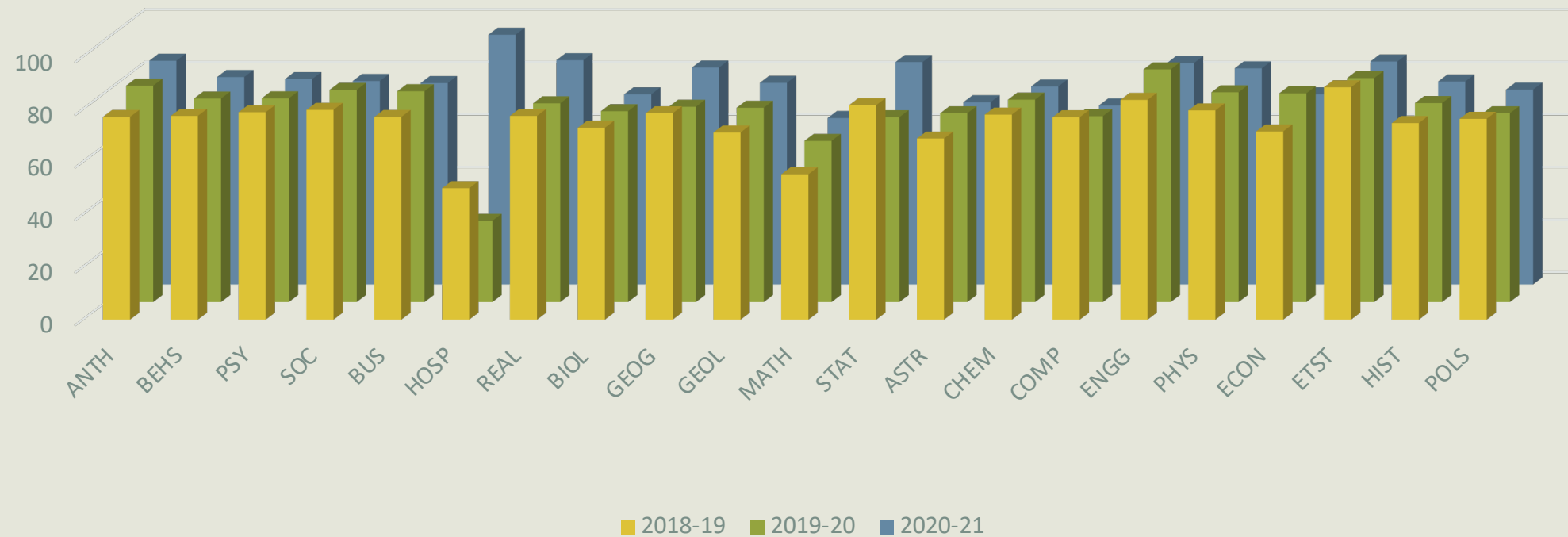
Non-Instructional Units

- Fall
 - Chair: 20
 - Coordinator: 6
 - Outside Grants: 6.5
 - UDWC Awards: 2
- Spring
 - Chair: 20
 - Coordinator: 6
 - Outside Grants: 6.5
 - UDWC Awards: 2.25

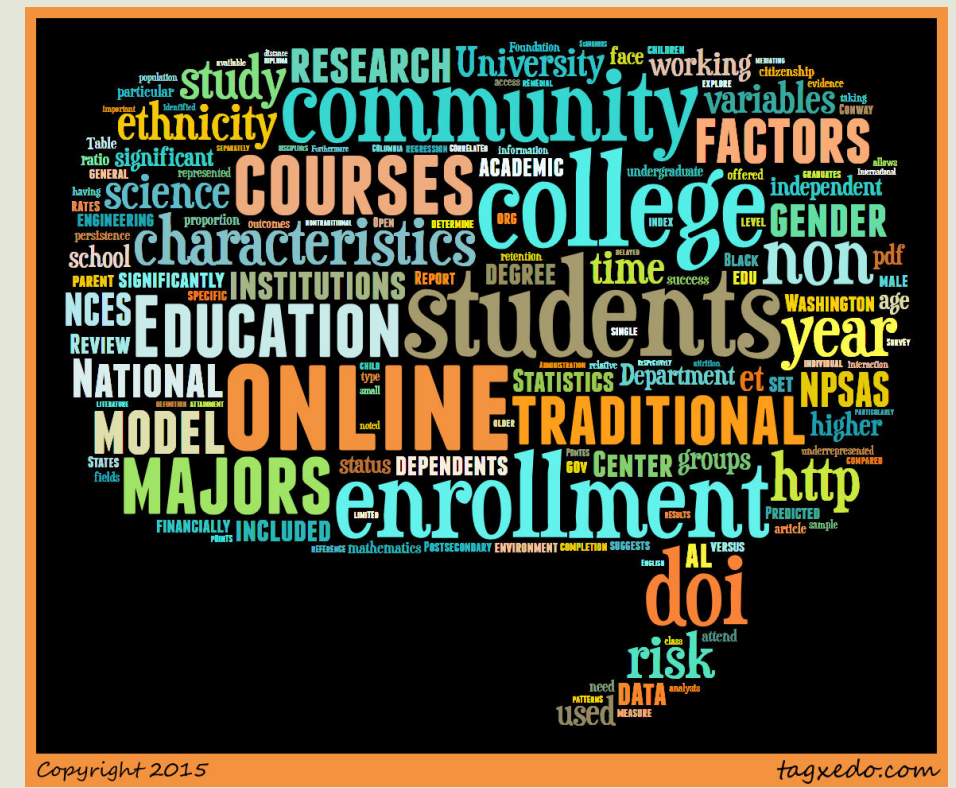
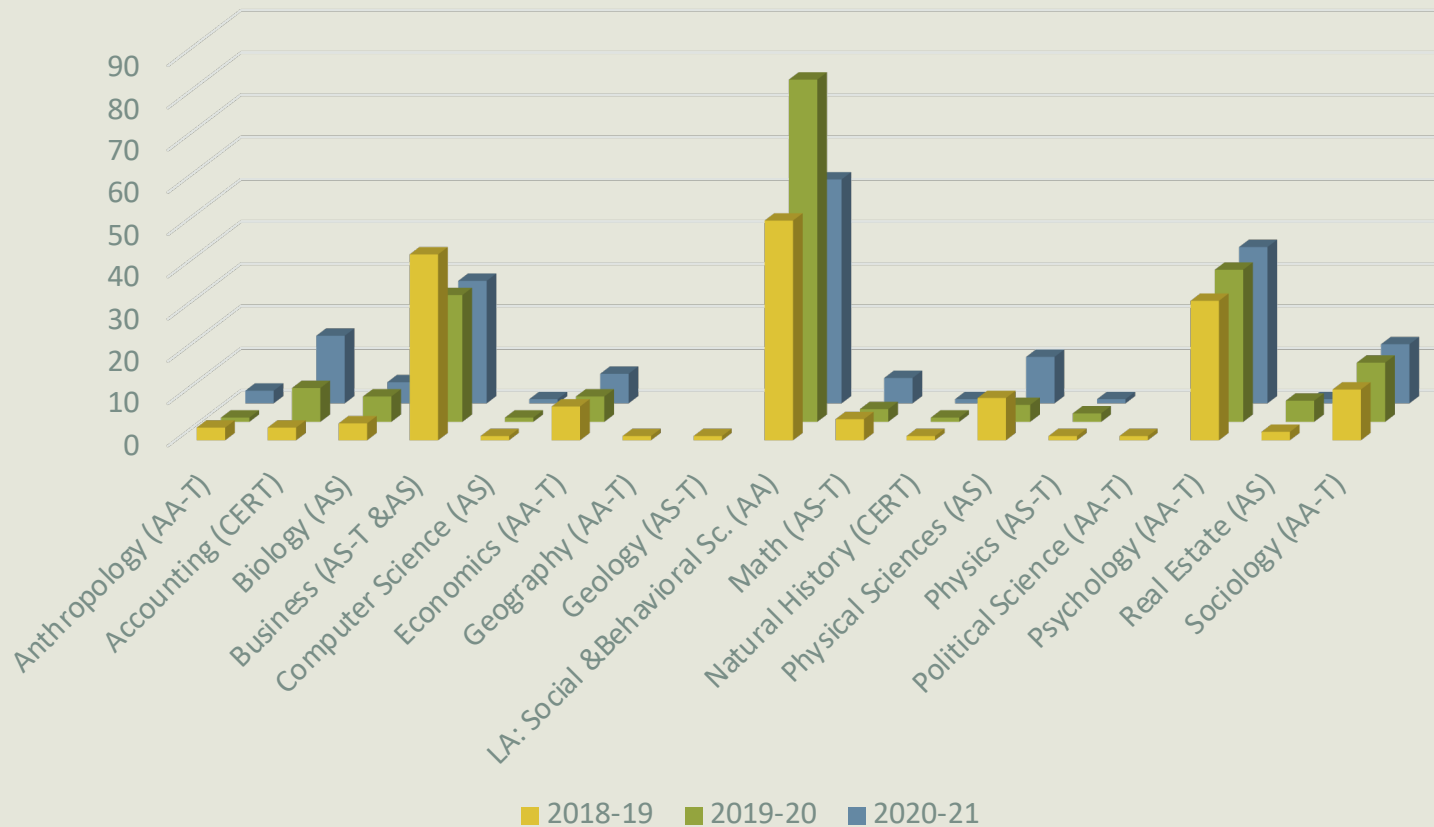
Non-Instructional Units



Successful Course Completion by Subject 2018-19 through 2020-21



Awards 2018-2019 through 2020-2021



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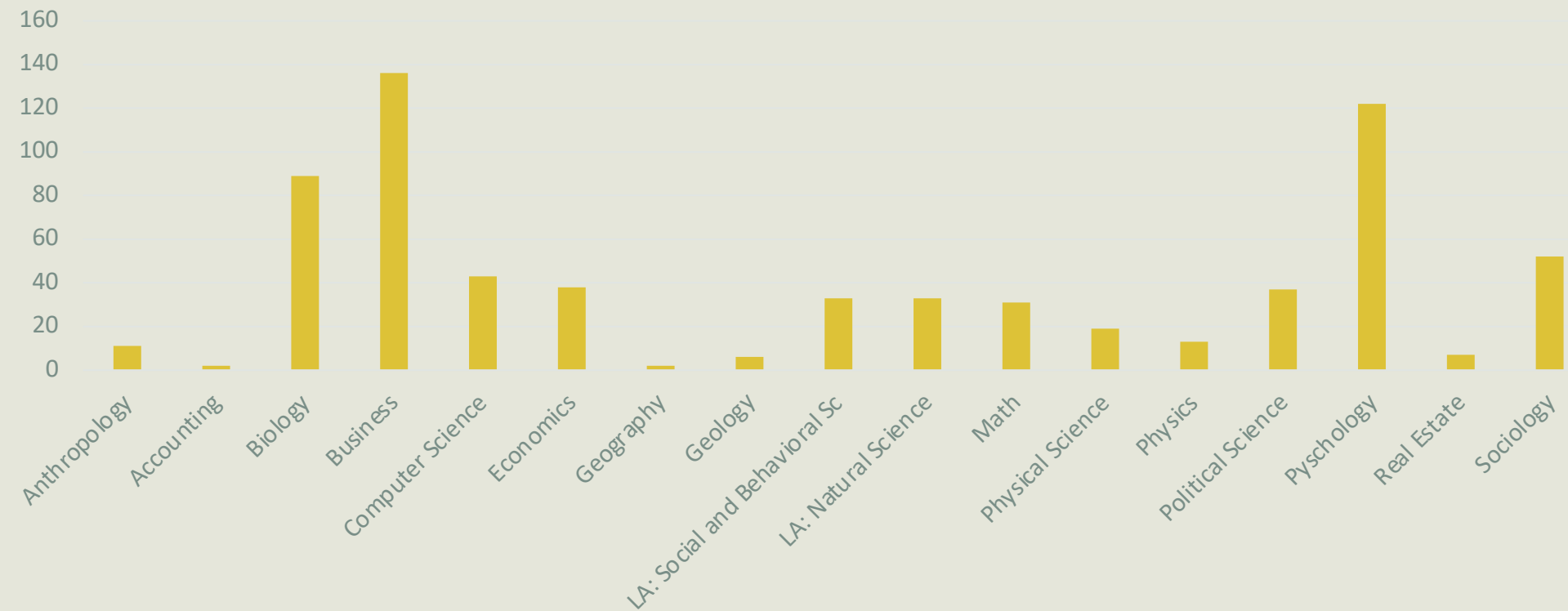
Awards 2018-2019 through 2020-2021

Degrees	2018-19	2019-20	2020-21
Anthropology (AA-T)	3	1	3
Accounting (CERT)	3	8	16
Biology (AS)	4	6	5
Business (AS-T & AS)	44	30	29
Computer Science (AS)	1	1	1
Economics (AA-T)	8	6	7
Geography (AA-T)	1		
Geology (AS-T)	1		
LA: Social & Behavioral Sc. (AA)	52	81	53
Math (AS-T)	5	3	6
Natural History (CERT)	1	1	1
Physical Sciences (AS)	10	4	11
Physics (AS-T)	1	2	1
Political Science (AA-T)	1		
Psychology (AA-T)	33	36	37
Real Estate (AS)	2	5	1
Sociology (AA-T)	12	14	14



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Students Transferred to a 4-year Institution 2018-2021



Students Transferred to a 4-year Institution 2018-2021

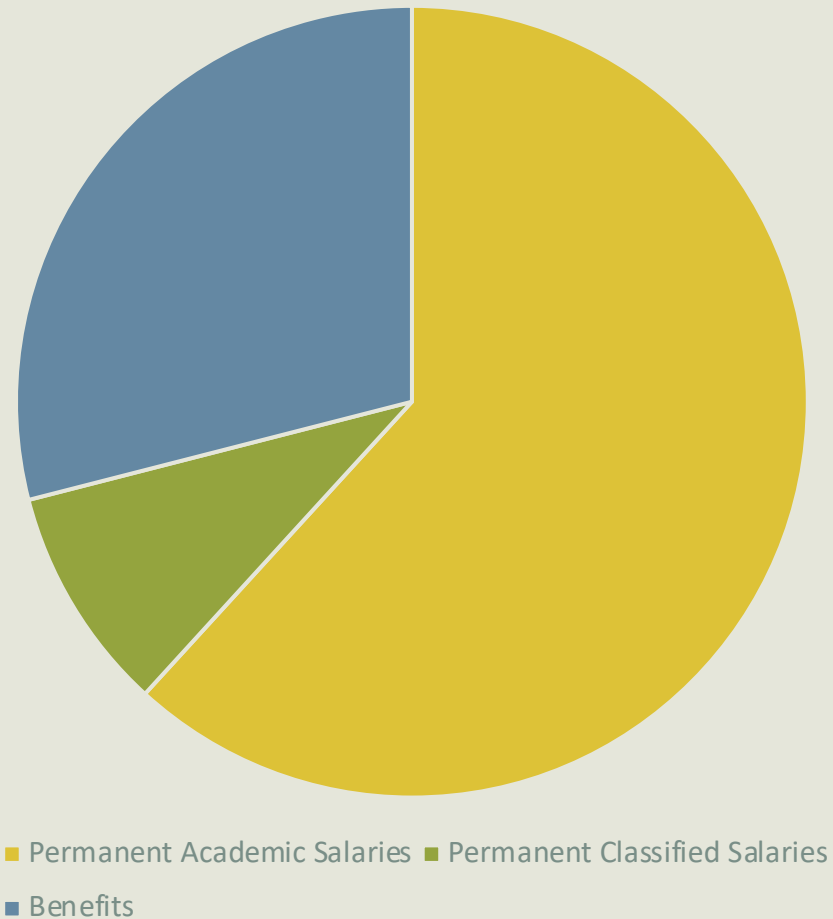
Majors	2018-2021
Anthropology	11
Accounting	2
Biology	89
Business	136
Computer Science	43
Economics	38
Geography	2
Geology	6
LA: Social and Behavioral Sc	33
LA: Natural Science	33
Math	31
Physical Science	19
Physics	13
Political Science	37
Pyschology	122
Real Estate	7
Sociology	52



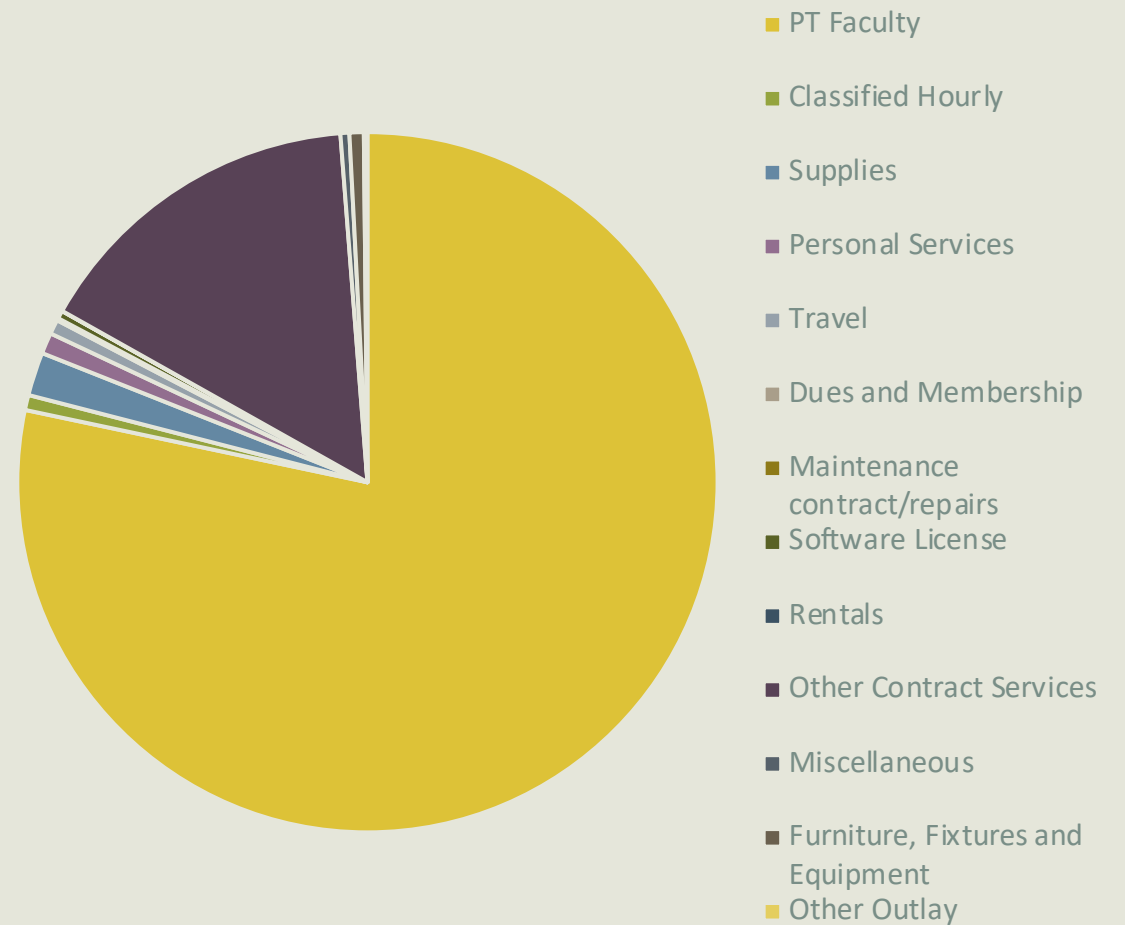
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Overall Budget

Non-Discretionary Budget



Discretionary



Behavioral Sciences

Description	Budget
Permanent Academic Salaries	\$629,474.00
Permanent Classified Salaries	\$15,997.00
Benefits	\$271,746.00
Total Non-discretionary	\$917,217.00
PT Faculty	\$308,174.00
Supplies	\$2,584.00
Personal Services	\$400.00
Total Discretionary	\$311,158.00
Total Budget	\$1,228,375.00

Social Sciences

Description	Budget
Permanent Academic Salaries	\$369,273.00
Permanent Classified Salaries	\$15,997.00
Benefits	\$160,723.00
Total Non-discretionary	\$545,993.00
PT Faculty	\$333,787.00
Supplies	\$1,343.00
Travel	\$1700.00
Total Discretionary	\$336,830.00
Total Budget	\$882,823.00

Life and Earth Sciences

Description	Budget
Permanent Academic Salaries	\$1,029,533.00
Permanent Classified Salaries	\$211,664.00
Benefits	\$514,074.00
Total Non-discretionary	\$1,755,271.00
PT Faculty	\$821,446.00
Classified Hourly	\$7,906.00
Supplies	\$32,135.00
Travel	\$2,885.00
Software Licenses	\$2,880.00
Other Contract Services	\$20,926.00
Furniture, Fixtures and Equipment	\$7,800.00
Total Discretionary	\$895,978.00
Total Budget	\$2,651,249.00

Math


Description	Budget
Permanent Academic Salaries	\$1,190,416.00
Permanent Classified Salaries	\$90,577.00
Benefits	\$446,537.00
Total Non-discretionary	\$1,727,530.00
PT Faculty	\$774,690.00
Classified Hourly	\$17,460.00
Supplies	\$549.00
Software Licenses	\$1,000.00
Total Discretionary	\$793,699.00
Total Budget	\$2,521,229.00

Physical Sciences

Description	Budget
Permanent Academic Salaries	\$886,130.00
Permanent Classified Salaries	\$154,766.00
Benefits	\$439,715.00
Total Non-discretionary	\$1,480,611.00
PT Faculty	\$618,070.00
Supplies	\$29,703.05
Personal Services	\$35,000.00
Travel	\$16,450.00
Software Licenses	\$8,580.00
Rentals	\$381.95
Other Contract Services	\$544,214.00
Miscellaneous	\$15,000.00
Furniture, Fixtures and Equipment	\$16,240.00
Outlay	\$6,000.00
Total Discretionary	\$1,289,639.00
Total Budget	\$2,770,250.00

Business

Description	Budget
Permanent Academic Salaries	\$466,605.00
Permanent Classified Salaries	\$89,285.00
Benefits	\$252,782.00
Total Non-discretionary	\$808,672.00
PT Faculty	\$28,800.00
Supplies	\$9,992.00
Travel	\$4,500.00
Dues and Membership	\$2,900.00
Software Licenses	\$1,000.00
Other Contract Services	\$4,626.00
Total Discretionary	\$51,818.00
Total Budget	\$860,490.00

The background features a dark, textured collage of white line-art icons representing various educational fields: a globe, a microscope, a book, a compass, a ruler, and a pencil.

Program discussions & directions

Retirements (within next 5 years) and Full Time and PT Faculty Requests

- Life and Earth Sciences: 1 retirement
- Behavioral Sciences: ~ 1 retirement
- Mathematics: ~ 3-5 retirements
- Political Science: 1 retirement
- Lab Tech: ~ 1 retirement
- Life and Earth: 1 Full Time Faculty request (retirement replacement)
- Physics: 1 Full Time Faculty request (resignation replacement)
- Geology: PT Pool
- Political Sciences: PT Pool
- Natural History Program: 1 extra class every other year (4.5 units)
- Ethnic Studies: 24 units

Math Discussions

- Full Implementation of AB705
- Fall pilot: Math 109/109c linked to a counseling course
- Shifting approach to companion courses: Unlinking the companion course for all 109 sections except the 109/109c fall pilot.
- Discussing whether to offer something else besides Statistics for non-STEM majors such as a Quantitative Reasoning course or College Algebra for Liberal Arts majors.
- Contemplating bringing back Math 114 (Finite Math).
- **Supports EMP Focus Area Instructional Programs**

Identification of Math Skills in Core STEM Courses

- Research strategies to support students around math skills in content STEM courses by connecting with other colleges and with key constituents at COM, such as STEM faculty, counselors, tutors, students etc.
- **Product:** Report that identifies math skills that students need to succeed in STEM content courses and recommendations about ways to best support students who do not come into STEM classes with those skills.
- **Support EMP Focus Area Instructional Programs**

Business Discussions

- **Learning the Entrepreneurial Mindset (BUS 128)**

- Student success program, teaching growth mindset and self-efficacy, resulting in markedly increased retention, procession, and graduation rates in community colleges
- Inspired by the life story of Pulitzer nominee Clifton Taulbert and the influence of his Uncle Cleve, *Who Owns the Ice House? Eight Life Lessons from an Unlikely Entrepreneur* is the companion text to this course.

- **Partnership with University of Redlands**

- The BUS department is leading this large initiative to offer COM students a full pathway to transfer to a private, not-for-profit, liberal arts university to earn a BS and even a MS in as short as 5 years (2+2+1) without ever needing to leave Marin County. Undergrad courses would be taught at COM, and graduate courses completed in San Anselmo.

- **Supporting local high schools**

- Satellite courses at Terra Linda High School and Marin Oaks High School.
- Piloted the Entrepreneurial Learning Initiative (ELI) “Ice House” course at Marin Oaks High School.

- **Exploring the possibility of launching ELI “Ice House” at San Rafael and Madrone High School**

- **Support EMP Focus Areas: Instructional Programs, Community Engagement and Responsiveness, and Student Access and Success**

Social Sciences Discussions

- Ethnic Studies is now a high school graduation requirement, and the department is working with local high schools to develop pipelines based on dual enrollment opportunities.
- During Fall 2022 Social Sciences will be offering one "satellite" course at San Rafael High School.
- A course in Ethnic Studies is now a CSU graduation requirement.
- The Social Sciences department has two courses that would allow students to meet these new graduation requirements. We have submitted Ethnic Studies 112 and Ethnic Studies 121 to the California Community College curriculum approval process.
- **Request:** Commitment to scale up the Ethnic Studies Program.
- **Request:** A commitment to building a Global Studies program at COM. There is an AA Degree in Global Studies through the California Community Colleges. Global Studies is an interdisciplinary program which would include offering of courses in Business, Geography, English, and Communications.
- **Supports EMP Focus Areas Equity and Community Engagement and Responsiveness**

Model UN

- Model UN conference at UC Santa Barbara (November 2021)
 - Participants of coalitions of "diplomats" who got their resolutions passed!
- Model UN Far West conference (April 8th)
- Model UN conference at UC Santa Cruz known as SlugMUN (May 6th-8th)
- Sponsored a successful debate and presentation about the war in Ukraine



Natural History Program

- Employment
 - Essential Skills for Field Surveys
- Natural History Program skills + experience -> 6-figure salary in science career
- Education
 - Competitive Transfers
 - Complement to 4-Year Programs
 - Filling gaps for Government Jobs and Grad School
- Internships
 - The hands on field skills they learn make them more competitive for internships and employment after graduation.
- Inspiration
 - Hands on experience
- Icing
 - Natural History Certificate is a bonus, but benefits from coursework are stand-alone
- **Supports EMP focus area Equity**



Tiny Earth Antibiotic Discovery Project

- College of Marin BIOL 240 students, in collaboration with researchers at University of Wisconsin, Madison, are engaging in scientific research in which they search for soil bacteria that produce natural antibiotics for further study.
- Antibiotic resistance is increasing all the time, which makes it imperative to discover new antibiotics. Antibiotic discovery through brute-force isolation and characterization of microbes is time consuming and expensive with no guarantee of success so most drug companies do not pursue this approach.
- By enlisting thousands of students in this research project, a large number of isolates can be screened. The students gain the experience of participating in a meaningful research project. The world, hopefully, will gain new antibiotics.
- <https://tinyearth.wisc.edu/>
- **Supports EMP Focus Area Instructional Programs**

Physical Sciences Discussions

- Piloting a Chemistry 114 Companion Course this Fall. The Chem 114C companion course is a "STEM mindset and math support course" designed to provide additional support and transition to prep incoming first year students with the habits of mind to succeed in a STEM trajectory.
- Department currently having preliminary discussions on whether to request a Chemistry FT hire in the future.
- Low Enrollments in ENGG over past several years. **Recommendation:** PRAC consider recommending to the Academic Senate that the program complete a revitalization procedure.
- **Supports EMP Focus Areas Equity and Instructional Programs**

STEM Learning Community

- **Learning Community Collaborations**

- Co-sponsored two STEM MAPS mentors (trained with MAPS, but mentoring STEM students)
- Ongoing conversations/engagement with Umoja Learning Community

- **Computer Science Club**

- Re-activated in the fall of 2021, with in-person meetings and 20+ participants in Spring 2022.

- **Community Hour**

- Hosted Women in STEM moderated panel to commemorate Women's History Month

- **Community Partnerships**

- AAUW-Marin awarded two \$1000 STEM Achievement scholarships for female transfer students
- 10,000 Degrees collaboration to strengthen incoming students

- **Mentoring (in-person and Zoom)**

- Increased student applications/acceptances to scholarships and selective internships

- **Supports EMP Focus Areas Equity and Instructional Programs**

Scaling Success RFP

Scaling Success to Expand Impact in STEM

- The California Learning Lab sponsored a grant in 2019 and they are launching a scale-up (continuation) grant for 2022-2024.
<https://calearninglab.org/grant/scaling-success-rfp/>
- STEM Center development
- Professional development for STEM faculty
- Curricular modules used to teach the pilot Chemistry Companion course (strategies for success in STEM).
- **Supports EMP Focus Areas Equity and Instructional Programs**

California Space Grant Consortium (CaSGC) Program

- Sponsored by NASA and involving about a dozen CCC's annually, program aims to enhance interest and success in STEM fields, especially among students from historically underrepresented groups.
- 9 to 12 students will work in teams over several months to develop micro-computer based projects that address interdisciplinary topics of interest to NASA (e.g., environmental sampling, physiological monitoring, robotics and autonomous navigation, etc.).
- Each student receives \$100 micro-computer electronics kit to keep, \$650 stipend, monthly webinars with NASA staff, site visit to NASA facility in August for project presentations, and priceless experience with programming, robotics, hardware, teamwork, and practical problem solving.
- **Supports EMP Focus Areas Equity**

MLK Science Classroom Visits

- Biology and Chemistry Faculty plan to perform science experiments with the two 8th grade classes. This is funded through BTBJ Grant.
- **Supports EMP Focus Areas Equity and Community Engagement and Responsiveness**

Summary

- ✓ **Main Takeaways**
 - ✓ **What we do:** We offer various degrees, transfer pathways, and certificates
 - ✓ **Top Priorities:**
 - ✓ Increase the number of Degrees, Transfers, and Certificates
 - ✓ Decrease time to degree and transfer
 - ✓ Increase support and opportunities for our underrepresented BSTEM students
 - ✓ Build equity across our curriculum
 - ✓ Continuing to strengthen our community and high school partnerships in an effort to create a stronger pipeline of diverse students.



Questions?