## Cañada College

## Science \& Technology Division

## Course Enrollments and Success by Modality

Prepared and presented by the Office of Planning, Research, and Institutional Effectiveness (PRIE)
February 2, 2024

# Student Instructional Modality Preferences Survey: Spring 2023 

PRESENTED TO THE PLANNING \& BUDGETING COUNCIL (PBC)
MAY 3, 2023
OFFICE OF PLANNING, RESEARCH \& INSTITUTIONAL EFFECTIVENESS

## Response Rates

3291 students were contacted

- 495 started the survey (15\%)
- 354 completed the survey (10.8\%)

The responding students were similar to the total list of students

- Hispanic students were slightly less likely to respond, while White and Asian students were slightly more likely to respond
- Female students were slightly more likely to respond than Male students
- Full-time students were slightly more likely to respond than part-time students


## race to тасе is tne preterrea modallty тor tne majority of subjects, followed by asynchronous online. Only in Digital media were preferences relatively even

| Subject Modality Preferences | Asynch <br> Online | Face to Face | Hybrid | Synch <br> Online |
| :--- | ---: | ---: | ---: | ---: |
| Art Studio | $23 \%$ | $42 \%$ | $19 \%$ | $16 \%$ |
| Business | $35 \%$ | $19 \%$ | $18 \%$ | $28 \%$ |
| Career Technical Classes | $24 \%$ | $30 \%$ | $20 \%$ | $25 \%$ |
| Computer Science | $31 \%$ | $26 \%$ | $18 \%$ | $24 \%$ |
| Counseling/Career | $33 \%$ | $23 \%$ | $18 \%$ | $26 \%$ |
| Digital Media/Computer Art | $29 \%$ | $25 \%$ | $20 \%$ | $27 \%$ |
| Health Sciences | $21 \%$ | $34 \%$ | $24 \%$ | $21 \%$ |
| Humanities | $31 \%$ | $29 \%$ | $21 \%$ | $19 \%$ |
| Lab activities | $16 \%$ | $55 \%$ | $17 \%$ | $13 \%$ |
| Languages | $27 \%$ | $30 \%$ | $20 \%$ | $23 \%$ |
| Lectures (general) | $33 \%$ | $23 \%$ | $21 \%$ | $23 \%$ |
| Math | $24 \%$ | $35 \%$ | $20 \%$ | $21 \%$ |
| Music Labs | $18 \%$ | $53 \%$ | $18 \%$ | $11 \%$ |
| Physical Education (P.E.) | $25 \%$ | $53 \%$ | $11 \%$ | $11 \%$ |
| Science Classes | $19 \%$ | $38 \%$ | $22 \%$ | $20 \%$ |
| Science Labs | $14 \%$ | $53 \%$ | $20 \%$ | $13 \%$ |
| Social Sciences | $38 \%$ | $21 \%$ | $21 \%$ | $21 \%$ |

## Departmental Overview:

Fall \& Spring 2023 and Fall 2022

|  | Enrollment Counts by Modality |  |  |  |  | Success Rates by Modality |  |  |  |  | Success - Percentage Point Difference Compared to Face-to-Face |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Subject | FACE TO FACE | HYBRID | ONLINE | SYNC | Total | FACE TO FACE | HYBRID | ONLINE | SYNC | Overall | HYBRID | ONLINE | SYNC |
| ASTR | 53 | 26 | 363 | 26 | 468 | 58\% | 54\% | 67\% | 65\% | 66\% | -4.6\% | 9.0\% | 6.9\% |
| BIOL | 351 | 980 | 1075 | 113 | 2519 | 67\% | 83\% | 75\% | 72\% | 77\% | 16.1\% | 8.4\% | 5.0\% |
| CHEM | 113 | 442 | 407 | 57 | 1019 | 79\% | 67\% | 67\% | 35\% | 66\% | -11.6\% | -12.2\% | -43.7\% |
| CIS | 143 | 25 | 615 | 11 | 794 | 77\% | 68\% | 67\% | 55\% | 69\% | -8.9\% | -9.4\% | -22.4\% |
| ENGR | 12 | 144 | 84 | 45 | 285 | 100\% | 78\% | 80\% | 69\% | 78\% | -21.5\% | -20.2\% | -31.1\% |
| ENVS | 105 |  | 113 |  | 218 | 82\% |  | 73\% |  | 77\% |  | -9.3\% |  |
| FSE. |  |  | 25 |  | 25 |  |  | 80\% |  | 80\% |  |  |  |
| GEOG |  | 38 |  |  | 38 |  | 66\% |  |  | 66\% |  |  |  |
| GEOL |  | 8 | 12 | 22 | 42 |  | 63\% | 42\% | 64\% | 57\% |  |  |  |
| MATH | 1397 | 289 | 1291 | 903 | 3880 | 67\% | 72\% | 70\% | 67\% | 68\% | 5.1\% | 3.5\% | 0.0\% |
| METE |  |  | 39 |  | 39 |  |  | 82\% |  | 82\% |  |  |  |
| OCEN |  |  | 344 | 199 | 543 |  |  | 88\% | 61\% | 78\% |  |  |  |
| PALT | 5 | 11 |  |  | 16 | 100\% | 100\% |  |  | 100\% | 0.0\% |  |  |
| PHYS | 27 | 57 | 350 | 46 | 480 | 56\% | 68\% | 84\% | 43\% | 77\% | 12.9\% | 28.7\% | -12.1\% |
| RADT | 358 | 11 | 11 |  | 380 | 95\% | 100\% | 100\% |  | 95\% | 5.0\% | 5.0\% |  |
| Grand <br> Total | 2564 | 2031 | 4729 | 1422 | 10746 | 72\% | 76\% | 73\% | 64\% | 72\% | 4.1\% | 0.9\% | -8.1\% |

## Departmental Overview: <br> Fall 2023 ONLY

|  | Enrollment Counts by Modality Fall 2023 only |  |  |  |  | Success Rates by Modality Fall 2023 only |  |  |  |  | Success - Percentage Point Difference Compared to Face-to-Face |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Subject | FACE TO FACE | HYBRID | ONLINE | SYNC | Total | FACE TO FACE | HYBRID | ONLINE | SYNC | Overall | HYBRID | ONLINE | SYNC |
| ASTR | 27 |  | 151 |  | 178 | 56\% |  | 68\% |  | 66\% |  | 12\% |  |
| BIOL | 112 | 386 | 352 | 37 | 887 | 60\% | 83\% | 74\% | 59\% | 75\% | 23\% | 14\% | 0\% |
| CHEM | 103 | 133 | 84 | 22 | 342 | 78\% | 73\% | 77\% | 41\% | 73\% | -5\% | 0\% | -37\% |
| CIS | 55 | 16 | 251 |  | 322 | 84\% | 63\% | 67\% |  | 70\% | -21\% | -16\% |  |
| ENGR |  | 28 | 27 | 23 | 78 |  | 82\% | 74\% | 70\% | 76\% |  |  |  |
| ENVS | 42 |  | 40 |  | 82 | 76\% |  | 80\% |  | 78\% |  | 4\% |  |
| FSE. |  |  | 23 |  | 23 |  |  | 78\% |  | 78\% |  |  |  |
| GEOG |  | 17 |  |  | 17 |  | 76\% |  |  | 76\% |  |  |  |
| GEOL |  |  |  | 22 | 22 |  |  |  | 64\% | 64\% |  |  |  |
| MATH | 541 | 112 | 430 | 305 | 1388 | 68\% | 64\% | 69\% | 66\% | 68\% | -4\% | 1\% | -2\% |
| METE |  |  | 25 |  | 25 |  |  | 80\% |  | 80\% |  |  |  |
| OCEN |  |  | 142 | 70 | 212 |  |  | 87\% | 61\% | 79\% |  |  |  |
| PALT |  | 3 |  |  | 3 |  | 100\% |  |  | 100\% |  |  |  |
| PHYS |  | 9 | 133 | 17 | 159 |  | 56\% | 81\% | 53\% | 77\% |  |  |  |
| RADT | 131 |  |  |  | 131 | 95\% |  |  |  | 95\% |  |  |  |
| Grand Total | 1011 | 704 | 1658 | 496 | 3869 | 73\% | 77\% | 73\% | 64\% | 72\% | 4\% | 1\% | -9\% |

## Division-wide Disproportionate Course Success by Population by Modality

| Student Population | Face to Face | Online | Hybrid | Synchronous |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Female |  |  |  |  |  |
| Asian |  |  |  |  |  |
| Black Non-Hispanic | YES |  |  |  |  |
| Filipino |  |  |  |  |  |
| Hispanic |  | YES |  |  |  |
| Multirace |  |  |  |  |  |
| Pacific Islander | YES |  |  |  |  |
| White Non-Hispanic |  | YES |  | YES |  |
| Ages 18-22 | YES | YES |  |  |  |
| Ages 23-28 | YES | YES |  |  |  |
| First Generation Student | YES |  |  |  |  |
| Low Income Student |  |  |  |  |  |

## Division-wide Disproportionate Access by Population by Modality

| Student Population | Face to Face | Online | Hybrid | Synchronous |
| :--- | :---: | :---: | :---: | :---: |
| Female | YES | YES | YES | YES |
| Asian |  |  |  |  |
| Black Non-Hispanic |  |  |  |  |
| Filipino |  |  |  |  |
| Hispanic |  |  |  |  |
| Multirace |  |  |  |  |
| Pacific Islander |  |  |  |  |
| White Non-Hispanic |  |  |  |  |
| Ages 18-22 |  |  |  |  |
| Ages 23-28 |  |  |  |  |
| First Generation Student |  |  |  |  |
| Low Income Student |  |  |  |  |

## Astronomy

Fall \& Spring 2023 and Fall 2022

|  |  | Enrollment Counts by Modality |  |  |  |  |  |  |  | Success Rates by Modality |  |  |  |  | Success - Percentage Point Difference Compared to Face-to-Face |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Subject | Course | FACE TO FACE | HYBRID |  | NLINE |  | SYNCHRON <br> ous | Total |  | FACE TO <br> FACE | HYBRID O | ONLINE S | SYNCHRONO US | Overall | HYBRID | ONLINE | SYNCHRONOUS |
| ASTR | ASTR-100 | 38 |  | 18 |  | 179 | 15 |  | 250 | 55\% | 50\% | 69\% | 60\% | 65\% | -5\% | 14\% | 5\% |
| ASTR | ASTR-101 | 15 |  | 8 |  | 184 | 11 |  | 218 | 67\% | 63\% | 66\% | 73\% | 66\% | -4\% | -1\% | $6 \%$ |

## Biology

Fall \& Spring 2023 and Fall 2022

|  |  | Enrollment Counts by Modality |  |  |  |  | Success Rates by Modality |  |  |  |  | Success - Percentage Point Difference Compared to Face-to-Face |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Subject | Course | FACE TO FACE | HYBRID | ONLINE | SYNCHRON OUS | Total | FACE TO FACE | HYBRID | ONLINE | SYNCHRONO US | Overall | HYBRID | ONLINE | SYNCHRONOUS |
| BIOL | BIOL-100 |  |  | 222 |  | 222 |  |  | 64\% |  | 64\% |  |  |  |
| BIOL | BIOL-110 |  | 238 | 106 |  | 344 |  | 82\% | 83\% |  | 83\% |  |  |  |
| BIOL | BIOL-130 | 243 |  | 492 | 65 | 800 | 63\% |  | 77\% | 62\% | 72\% |  | 14\% | -2\% |
| BIOL | BIOL-132 | 50 |  | 19 |  | 69 | 74\% |  | 68\% |  | 72\% |  | -6\% |  |
| BIOL | BIOL-225 |  | 68 |  |  | 68 |  | 82\% |  |  | 82\% |  |  |  |
| BIOL | BIOL-230 |  | 69 |  |  | 69 |  | 88\% |  |  | 88\% |  |  |  |
| BIOL | BIOL-240 |  | 242 |  | 36 | 278 |  | 86\% |  | 86\% | 86\% |  |  |  |
| BIOL | BIOL-250 | 54 | 4 175 | 43 | 12 | 284 | 72\% | 76\% | 95\% | 83\% | 79\% | 4\% | 23\% | 11\% |
| BIOL | BIOL-260 |  | 188 |  |  | 188 |  | 84\% |  |  | 84\% |  |  |  |
| BIOL | BIOL-310 |  |  | 193 |  | 193 |  |  | 74\% |  | 74\% |  |  |  |
| BIOL | BIOL-695 | 4 |  |  |  | 4 | 100\% |  |  |  | 100\% |  |  |  |
| BIOL | BIOL Total | 351 | 980 | 1075 | 113 | 2519 | 67\% | 83\% | 75\% | 72\% | 77\% | 16\% | 8\% | 5\% |

## Chemistry

Fall \& Spring 2023 and Fall 2022

|  |  | Enrollment Counts by Modality |  |  |  |  | Success Rates by Modality |  |  |  |  | Success - Percentage Point Difference Compared to Face-to-Face |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Subject | Course | FACE TO FACE | HYBRID | ONLINE O | SYNCHRON OUS | Total | FACE TO FACE | HYBRID | ONLINE | SYNCHRONO US | Overall | HYBRID | ONLINE | SYNCHRONOUS |
| CHEM | CHEM-192 |  |  | 31 | 57 | 88 |  |  | 90\% | 35\% | 55\% |  |  |  |
| CHEM | CHEM-210 | 32 | 259 | 203 |  | 494 | 72\% | 68\% | 68\% |  | 68\% | -4\% | -4\% |  |
| CHEM | CHEM-220 | 29 | 104 | 53 |  | 186 | 93\% | 72\% | 74\% |  | 76\% | -21\% | -20\% |  |
| CHEM | CHEM-231 | 13 | 25 |  |  | 38 | 69\% | 48\% |  |  | 55\% | -21\% |  |  |
| CHEM | CHEM-232 | 9 |  |  |  | 9 | 89\% |  |  |  | 89\% |  |  |  |
| CHEM | CHEM-410 | 29 | 54 | 120 |  | 203 | 72\% | 65\% | 55\% |  | 60\% | -8\% | -17\% |  |
| CHEM | CHEM-695 | 1 |  |  |  | 1 | 100\% |  |  |  | 100\% |  |  |  |

## Computer Information Science (CIS)

Fall \& Spring 2023 and Fall 2022

|  |  | Enrollment Counts by Modality |  |  |  |  | Success Rates by Modality |  |  |  |  | Success - Percentage Point Difference Compared to Face-to-Face |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CIS | CIS-118 |  |  | 266 |  | 266 |  |  | 65\% |  | 65\% |  |  |  |
| CIS | CIS-122 |  |  | 57 |  | 57 |  |  | 49\% |  | 49\% |  |  |  |
| CIS | CIS-242 | 53 |  |  |  | 53 | 81\% |  |  |  | 81\% |  |  |  |
| CIS | CIS-250 | 19 | 25 | 179 |  | 223 | 68\% | 68\% | 74\% |  | 73\% | 0\% | 5\% |  |
| CIS | CIS-252 | 58 |  |  |  | 58 | 72\% |  |  |  | 72\% |  |  |  |
| CIS | CIS-262 | 13 |  |  |  | 13 | 92\% |  |  |  | 92\% |  |  |  |
| CIS | CIS-284 |  |  | 80 |  | 80 |  |  | 68\% |  | 68\% |  |  |  |
| CIS | CIS-286 |  |  | 33 | 11 | 44 |  |  | 88\% | 55\% | 80\% |  |  |  |
| CIS | CIS Total | 143 | 25 | 615 | 11 | 794 | 77\% | 68\% | 67\% | 55\% | 69\% | -9\% | -9\% | -22\% |

## Engineering <br> Fall \& Spring 2023 and Fall 2022

|  |  | Enrollment Counts by Modality |  |  |  |  | Success Rates by Modality |  |  |  |  | Success - Percentage Point Difference Compared to Face-to-Face |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ENGR | ENGR-100 |  | 74 | 52 |  | 126 |  | 77\% | 73\% |  | 75\% |  |  |  |
| ENGR | ENGR-210 |  | 24 |  | 45 | 69 |  | 83\% |  | 69\% | 74\% |  |  |  |
| ENGR | ENGR-215 |  | 17 |  |  | 17 |  | 47\% |  |  | 47\% |  |  |  |
| ENGR | ENGR-230 |  | 3 | 24 |  | 27 |  | 100\% | 88\% |  | 89\% |  |  |  |
| ENGR | ENGR-260 |  | 7 | 8 |  | 15 |  | 100\% | 100\% |  | 100\% |  |  |  |
| ENGR | ENGR-261 | 12 |  |  |  | 12 | 100\% |  |  |  | 100\% |  |  |  |
| ENGR | ENGR-270 |  | 19 |  |  | 19 |  | 95\% |  |  | 95\% |  |  |  |
| ENGR | ENGR Total | 12 | 144 | 84 | 45 | 285 | 100\% | 78\% | 80\% | 69\% | 78\% | -22\% | -20\% | -31\% |

## Environmental Science

Fall \& Spring 2023 and Fall 2022


## Geology

Fall \& Spring 2023 and Fall 2022


## Mathematics

Fall \& Spring 2023 and Fall 2022

|  |  | Enrollment Counts by Modality |  |  |  |  | Success Rates by Modality |  |  |  |  | Success - Percentage Point Difference Compared to Face-to-Face |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MATH | MATH-110 |  |  | 31 |  | 31 |  |  | 87\% |  | 87\% |  |  |  |
| MATH | MATH-120 |  | 16 | 146 |  | 162 |  | 94\% | 88\% |  | 89\% |  |  |  |
| MATH | MATH-200 | 470 |  | 485 | 481 | 1436 | 62\% |  | 56\% | 61\% | 60\% |  | -5\% | 0\% |
| MATH | MATH-225 | 263 | 9 | 87 | 21 | 380 | 63\% | 56\% | 62\% | 67\% | 63\% | -8\% | -1\% | 3\% |
| MATH | MATH-241 | 56 | 13 | 41 | 26 | 136 | 75\% | 62\% | 83\% | 100\% | 81\% | -13\% | 8\% | 25\% |
| MATH | MATH-243 | 13 |  |  |  | 13 | 92\% |  |  |  | 92\% |  |  |  |
| MATH | MATH-251 | 156 | 47 | 130 | 36 | 369 | 81\% | 66\% | 76\% | 64\% | 76\% | -15\% | -5\% | -18\% |
| MATH | MATH-252 |  | 108 | 88 | 86 | 282 |  | 75\% | 85\% | 74\% | 78\% |  |  |  |
| MATH | MATH-253 | 51 | 37 | 63 | 75 | 226 | 96\% | 89\% | 76\% | 72\% | 81\% | -7\% | -20\% | -24\% |
| MATH | MATH-270 | 32 | 5 | 73 | 34 | 144 | 100\% | 100\% | 85\% | 82\% | 88\% | 0\% | -15\% | -18\% |
| MATH | MATH-275 | 4 | 10 | 61 | 46 | 121 | 100\% | 90\% | 79\% | 72\% | 78\% | -10\% | -21\% | -28\% |
| MATH | MATH-800 | 219 |  |  | 77 | 296 | 58\% |  |  | 62\% | 59\% |  |  | 5\% |
| MATH | MATH-825 | 109 | 9 | 86 | 21 | 225 | 57\% | 67\% | 65\% | 76\% | 62\% | 10\% | 8\% | 19\% |
| MATH | MATH-841 | 24 |  |  |  | 24 | 79\% |  |  |  | 79\% |  |  |  |
| MATH | MATH-145 |  | 35 |  |  | 35 |  | 40\% |  |  | 40\% |  |  |  |
| MATH | MATH Total | 1397 | 289 | 1291 | 903 | 3880 | 67\% | 72\% | 70\% | 67\% | 68\% | 5\% | 4\% | 0\% |

## Oceanography

Fall \& Spring 2023 and Fall 2022


## Physics

Fall \& Spring 2023 and Fall 2022

|  |  | Enrollment Counts by Modality |  |  |  |  | Success Rates by Modality |  |  |  |  | Success - Percentage Point Difference Compared to Face-to-Face |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PHYS | PHYS-210 |  | 14 | 102 |  | 116 |  | 43\% | 77\% |  | 73\% |  |  |  |
| PHYS | PHYS-220 |  | 3 | 51 |  | 54 |  | 100\% | 86\% |  | 87\% |  |  |  |
| PHYS | PHYS-250 | 27 | 18 |  | 46 | 91 | 56\% | 50\% |  | 43\% | 48\% | -6\% |  | -12\% |
| PHYS | PHYS-260 |  | 16 | 133 |  | 149 |  | 100\% | 83\% |  | 85\% |  |  |  |
| PHYS | PHYS-270 |  | 6 | 29 |  | 35 |  | 83\% | 100\% |  | 97\% |  |  |  |
| PHYS | PHYS-405 |  |  | 35 |  | 35 |  |  | 91\% |  | 91\% |  |  |  |
| PHYS | PHYS Total | 27 | 57 | 350 | 46 | 480 | 56\% | 68\% | 84\% | 43\% | 77\% | 13\% | 29\% | -12\% |

