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Teaching and Academic Support

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TEACHING AND ACADEMIC SUPPORT

Source Data:

The data used for the Teaching and Academic Support section of this book comes from multiple data sources, as listed below:

Additional Facts & Figures: Units both taught by PCHE schools and taken by PCHE students are collected through the Student Information System (SIS)

Computing Services Statistics: Computing Services, Usage Architecture & Analysis

Eberly Center for Teaching Excellence: Eberly Center for Teaching Excellence

<u>Library Collections & Utilization:</u> University Libraries

Media Technology Services: Media Technology Services

<u>Units Taught:</u> Student Information System (SIS)

<u>Video Viewing Cluster:</u> University Libraries

Definitions:

<u>PCHE:</u> Pittsburgh Council on Higher Education - a consortium of the ten accredited colleges and universities in Allegheny County, Pennsylvania. As part of the consortium agreement, full-time graduate or undergraduate students at each PCHE school can cross-register at any other PCHE school at no additional expense to the student.

<u>Pittsburgh Filmmakers:</u> Carnegie Mellon students are eligible to take courses at Pittsburgh Filmmakers at no additional expense to the student

Units Taught:

Academic Year: Consists of the fall and spring semesters of a given academic year

<u>Data Source:</u> All units taught are taken from the Student Information System (SIS) at the completion of each semester, except for Fall 2006 units taught. This data is taken from SIS as of the last fiscal day of September 2006.

Level: Based on the level of the student taking each course

Other: Includes units taught to special/non-degree students and students from other colleges attending Carnegie Mellon through the Pittsburgh Council of Higher Education (PCHE)

<u>Units:</u> A student earns a specified number of units for each course taken at the university. Three (3) units are the equivalent of one (1) credit hour. The total units taught by a department is calculated by summing the units taken by each student for each course taught by the department.

UNITS TAUGHT BY COLLEGE & STUDENT LEVEL ACADEMIC YEARS 2001-2002 to 2005-2006

| College | Level | 2001-2002 | 2002-2003 | 2003-2004 | 2004-2005 | 2005-2006 |
|------------------------|--|--|---|---|--|--|
| CFA | Undergraduate | 90,112 | 91,423 | 87,108 | 85,848 | 85,229 |
| | Graduate | 15,630 | 17,084 | 20,803 | 20,335 | 19,938 |
| | Special | 2,178 | 1,713 | 1,820 | 1,270 | 1,262 |
| | Total | 107,920 | 110,219 | 109,731 | 107,452 | 106,428 |
| CIT | Undergraduate | 64,227 | 66,384 | 67,913 | 69,217 | 69,843 |
| | Graduate | 48,561 | 59,420 | 61,583 | 62,359 | 62,217 |
| | Special | 770 | 753 | 883 | 909 | 690 |
| | Total | 113,558 | 126,557 | 130,379 | 132,485 | 132,750 |
| Heinz | Undergraduate | 2,421 | 1,705 | 1,416 | 1,986 | 1,410 |
| | Graduate | 32,699 | 34,218 | 33,464 | 36,677 | 39,006 |
| | Special | 228 | 132 | 138 | 354 | 282 |
| | Total | 35,348 | 36,055 | 35,018 | 39,017 | 40,698 |
| H&SS | Undergraduate | 145,571 | 146,277 | 144,093 | 146,760 | 145,683 |
| | Graduate | 15,589 | 15,180 | 15,807 | 17,115 | 16,325 |
| | Special | 1,737 | 1,749 | 1,830 | 1,248 | 1,509 |
| | Total | 162,897 | 163,206 | 161,730 | 165,123 | 163,517 |
| Inter- disciplinary | Undergraduate Graduate Special Total | 2,256 22,021 48 24,325 | 10,541 30,524 54 41,119 | 11,247 34,847 90 46,184 | 14,186 41,506 111 55,803 | 11,245 42,272 105 53,622 |
| MCS | Undergraduate | 86,221 | 89,944 | 91,808 | 97,876 | 100,503 |
| | Graduate | 14,901 | 17,026 | 17,668 | 18,140 | 17,777 |
| | Special | 561 | 616 | 557 | 632 | 536 |
| | Total | 101,683 | 107,586 | 110,033 | 116,648 | 118,816 |
| scs | Undergraduate | 42,535 | 43,030 | 41,636 | 41,493 | 42,027 |
| | Graduate | 42,366 | 46,819 | 52,542 | 56,995 | 58,109 |
| | Special | 989 | 902 | 1,100 | 1,178 | 1,037 |
| | Total | 85,890 | 90,751 | 95,278 | 99,666 | 101,173 |
| Tepper | Undergraduate | 33,152 | 36,233 | 36,997 | 37,309 | 38,145 |
| | Graduate | 77,375 | 83,543 | 88,908 | 75,102 | 70,376 |
| | Special | 510 | 396 | 480 | 333 | 378 |
| | Total | 111,037 | 120,172 | 126,385 | 112,744 | 108,899 |
| Other | Undergraduate | 11,373 | 4,239 | 7,332 | 6,749 | 7,141 |
| | Graduate | 621 | 553 | 1,647 | 2,084 | 2,245 |
| | Special | 975 | 972 | 1,050 | 1,068 | 1,089 |
| | Total | 12,969 | 5,764 | 10,029 | 9,901 | 10,475 |
| TOTAL | Undergraduate | 477,868 | 489,776 | 489,550 | 501,423 | 501,226 |
| | Graduate | 269,763 | 304,367 | 327,269 | 330,313 | 328,264 |
| | Special | 7,996 | 7,287 | 7,948 | 7,103 | 6,888 |
| | Total | 755,626 | 801,429 | 824,767 | 838,839 | 836,377 |

UNITS TAUGHT BY DEPARTMENT & LEVEL

| College | Department | UG | Grad | Special | Total | UG | Grad | Special | Total | UG | Grad | Special | Total |
|---------|-----------------------------------|--------|--------|---------|--------|--------|--------|---------|--------|--------|--------|---------|--------|
| | Architecture | 10,703 | 1,535 | 19 | 12,257 | 8,887 | 1,484 | 36 | 10,407 | 10,747 | 1,415 | 21 | 12,182 |
| | Art | 6,563 | 792 | 30 | 7,385 | 6,110 | 983 | 29 | 7,122 | 6,196 | 830 | 39 | 7,065 |
| | Design | 6,350 | 2,217 | 35 | 8,601 | 6,182 | 2,093 | 45 | 8,320 | 6,413 | 2,693 | 54 | 9,160 |
| | Drama | 9,854 | 2,591 | 21 | 12,466 | 9,833 | 2,112 | 17 | 11,962 | 10,125 | 2,503 | 6 | 12,634 |
| | Interdisciplinary | 1,023 | 52 | 9 | 1,083 | 1,938 | 51 | 22 | 2,011 | 1,207 | 39 | 0 | 1,246 |
| | Music | 8,522 | 2,919 | 492 | 11,933 | 9,266 | 3,110 | 507 | 12,883 | 8,626 | 3,081 | 515 | 12,222 |
| | TOTAL | 43,014 | 10,105 | 606 | 53,724 | 42,216 | 9,833 | 656 | 52,704 | 43,314 | 10,560 | 635 | 54,509 |
| | Biomedical Eng | 2,088 | 1,151 | 21 | 3,260 | 2,127 | 1,149 | 12 | 3,288 | 2,410 | 1,229 | 12 | 3,651 |
| | Chemical Eng | 4,415 | 4,243 | 106 | 8,764 | 3,969 | 3,898 | 45 | 7,912 | 4,554 | 4,364 | 37 | 8,955 |
| | Civil & Environmental Eng | 3,111 | 3,209 | 57 | 6,377 | 2,685 | 2,511 | 9 | 5,205 | 3,786 | 2,995 | 93 | 6,874 |
| | Electrical & Computer Eng | 10,839 | 11,446 | 96 | 22,381 | 9,078 | 10,420 | 132 | 19,630 | 10,984 | 12,465 | 156 | 23,605 |
| | Eng & Public Policy | 525 | 1,750 | 12 | 2,287 | 1,980 | 1,687 | 24 | 3,691 | 621 | 2,019 | 12 | 2,652 |
| | Information Networking Institute | 0 | 3,742 | 0 | 3,742 | 78 | 3,710 | 0 | 3,788 | 12 | 4,303 | 0 | 4,315 |
| | Interdisciplinary | 1,936 | 120 | 9 | 2,065 | 1,850 | 347 | 9 | 2,206 | 1,397 | 135 | 18 | 1,550 |
| | Materials Science & Eng | 2,730 | 2,904 | 12 | 5,646 | 2,121 | 2,871 | 12 | 5,004 | 3,181 | 3,573 | 72 | 6,826 |
| | Mechanical Eng | 10,271 | 3,752 | 46 | 14,069 | 10,040 | 3,307 | 88 | 13,435 | 10,056 | 4,322 | 116 | 14,494 |
| | TOTAL | 35,915 | 32,317 | 359 | 68,591 | 33,928 | 29,900 | 331 | 64,159 | 37,001 | 35,405 | 516 | 72,922 |
| | Creative Enterprise Mgmt | 138 | 2,013 | 0 | 2,151 | 90 | 1,437 | 0 | 1,527 | 66 | 2,772 | 0 | 2,838 |
| | Information Systems Management | 78 | 1,008 | 0 | 1,086 | 36 | 420 | 0 | 456 | 96 | 1,590 | 0 | 1,686 |
| | Masters in Public Management | 30 | 3,528 | 24 | 3,582 | 42 | 2,742 | 0 | 2,784 | 66 | 3,384 | 6 | 3,456 |
| | Medical Management | 0 | 582 | 0 | 582 | 0 | 1,002 | 0 | 1,002 | 0 | 1,110 | 0 | 1,110 |
| | Public Policy & Management | 516 | 13,470 | 132 | 14,118 | 480 | 12,804 | 126 | 13,410 | 639 | 12,689 | 114 | 13,442 |
| | TOTAL | 762 | 20,601 | 156 | 21,519 | 648 | 18,405 | 126 | 19,179 | 867 | 21,545 | 120 | 22,532 |
| | Center for Innovation in Learning | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 0 | 0 | 0 |
| | Center for the Arts in Society | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,044 | 45 | 9 | 1,098 |
| | Economics | 9,825 | 18 | 0 | 9,843 | 9,018 | 6 | 0 | 9,024 | 10,323 | 27 | 9 | 10,359 |
| | English | 13,302 | 2,840 | 120 | 16,262 | 12,542 | 2,482 | 66 | 15,090 | 13,149 | 2,266 | 51 | 15,466 |
| | History | 10,840 | 612 | 132 | 11,584 | 11,764 | 575 | 54 | 12,393 | 12,000 | 654 | 54 | 12,708 |
| | Information Systems Program | 3,041 | 6 | 18 | 3,065 | 2,735 | 6 | 9 | 2,750 | 2,315 | 0 | 0 | 2,315 |
| | Modern Languages | 10,503 | 683 | 243 | 11,429 | 8,397 | 577 | 195 | 9,169 | 12,144 | 823 | 276 | 13,243 |
| | Philosophy | 6,457 | 756 | 36 | 7,249 | 5,086 | 755 | 27 | 5,868 | 5,926 | 680 | 33 | 6,639 |
| | Psychology | 10,035 | 1,164 | 63 | 11,262 | 8,141 | 1,509 | 90 | 9,740 | 10,301 | 1,361 | 27 | 11,689 |
| | Social & Decision Sci | 5,676 | 364 | 30 | 6,070 | 5,202 | 421 | 36 | 5,659 | 5,589 | 501 | 0 | 6,090 |
| | Statistics | 6,624 | 2,006 | 186 | | | | | | | | | |

| College | Department | UG | Grad | Special | Total | UG | Grad | Special | Total | UG | Grad | Special | Total |
|---------|--------------------------------|-------|--------|---------|--------|-------|--------|---------|--------|-------|--------|---------|--------|
| | CM University-Wide Studies | 4,207 | 36 | 3 | 4,246 | 1,311 | 51 | 9 | 1,371 | 4,854 | 9 | 3 | 4,866 |
| | Computational Biology | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 24 | 0 | 124 | 27 | 151 |
| | Entertainment Technology | 177 | 3,693 | 9 | 3,879 | 144 | 4,122 | 36 | 4,302 | 36 | 5,823 | 0 | 5,859 |
| | Information Systems Management | 726 | 14,567 | 24 | 15,317 | 690 | 8,806 | 18 | 9,514 | 576 | 13,511 | 12 | 14,099 |
| | International Education | 1,008 | 0 | 0 | 1,008 | 1,404 | 0 | 0 | 1,404 | 972 | 36 | 0 | 1,008 |
| | StuCo (Student Led Courses) | 372 | 3 | 3 | 378 | 1,206 | 78 | 3 | 1,287 | 882 | 30 | 9 | 921 |
| | West Coast Campus | 0 | 5,922 | 0 | 5,922 | 0 | 4,970 | 0 | 4,970 | 0 | 3,720 | 0 | 3,720 |
| | TOTAL | 6,490 | 24,221 | 39 | 30,750 | 4,755 | 18,051 | 66 | 22,872 | 7,320 | 23,253 | 51 | 30,624 |
| | Biological Sci Chemistry | 6,895 | 1,818 | 69 | 8,782 | 6,649 | 1,737 | 120 | 8,506 | 7,422 | 2,596 | 39 | 10,057 |

COMPUTING SERVICES STATISTICS 2006

Computing Services provides the majority of computing and network infrastructure on campus. Specific services provided include:

- Building and maintaining basic and advanced communications infrastructure, from phone lines to wireless
 access points.
- Building and maintaining basic and advanced middleware infrastructure and directory services to provide secure and robust identity management services.
- Maintaining central computing clusters and providing campus-wide printing.
- Deploying and maintaining shared email and web services (Cyrus, Spam Filtering, MyAndrew, the Portal).
- Deploying and maintaining enterprise administrative applications.
- Working with faculty to design and teach Computing Skills Workshop, and providing essential and innovative instructional technologies within the classroom.
- Monitoring the security and fair use of our network, and protecting it against abuse and attack.
- Supporting all of these activities with documentation, education, outreach, and a help center.

Development, support, and maintenance for the University's enterprise administrative applications are provided for the following areas:

- Enrollment
- Financial Services
- Human Resources
- University Advancement

Computing Services Website: http://www.cmu.edu/computing

Key Statistics:

| Network Connections | 2002 | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> |
|---|-------------------|----------------|--------------------|--------------------|-------------------|
| Ethernet | 6,962 | 11,904 | 17,192 | 21,707 | 26,469 |
| Wireless | 9,948 | 11,198 | 11,701 | 14,602 | 16,550 |
| Total Network Connections | 16,910 | 23,102 | 28,893 | 36,309 | 43,019 |
| | | | | | |
| | | | | | |
| Computers in Public Clusters | 2002 | 2003 | 2004 | <u>2005</u> | 2006 |
| Computers in Public Clusters Total Workstations | 2002 93 | 2003 71 | 2004 107 | 2005 103 | 2006 96 |
| - | | | | | |

Total Cluster Hours Used for Teaching in Academic Year 2005-2006: 938

Total Cases of Paper Used for Printing from Clusters:

Academic Year 2004-2005: 1,071

Academic Year 2005-2006: 545

The Information Security Office alerted users of **65** operating system and application security vulnerabilities.

Help Center

- Number of service requests for Academic Year 2005-2006: 26,924
- Average caller wait time: 25 seconds

Email

- Number of active Andrew accounts as of July 2006: 27,457
- Number of Webmail users during Academic Year 2005–2006: 13,070
- Average number of email messages delivered weekly during Academic Year 2005–2006: 7,791,779
- Average number of email messages sent weekly by andrew.cmu.edu during Academic Year 2005–2006: 439,796
- Average number of spam messages filtered weekly during Academic Year 2005–2006:
 2,825,475

Web Portal

- Number of unique users during Academic Year 2005-2006: 13,969
- Number of event calendars providing information to portal as of July 2006: 162

Web Publishing

- Number of www.cmu.edu collections as of July 2006: 453
- Number of web pages: 25,000
- Average daily number of page views during Academic Year 2005-2006: 150,000

Number of Andrew Calendar user holders from July 2005–July 2006: 5,646

Percent of first-year undergraduate students with a laptop (based on 2005 survey): 71%

Percent of first-year undergraduate students who own a computer: 99%

MEDIA TECHNOLOGY SERVICES FISCAL YEARS 2002 TO 2006

Equipment for Pickup

| | 2002 | 2003 | 2004 | 2005 | 2006 |
|-----------------------|------|------|------|------|------|
| Video/Data Projectors | 6 | 6 | 4 | 4 | 4 |
| VCRs | 4 | 4 | 2 | 2 | 6 |
| Video/Data Monitors | 1 | 1 | 1 | 0 | n/a |
| Slide Projectors | 4 | 4 | 4 | 4 | n/a |
| Tape Players | 3 | 3 | 0 | n/a | n/a |
| Sound Systems | 9 | 9 | 4 | 4 | 4 |
| Overhead Projectors | 2 | 2 | 2 | 2 | 6 |
| Videodisc Players | 4 | 0 | 0 | 1 | n/a |
| Personal Computers | 10 | 10 | 6 | 0 | n/a |
| MiniDV Camcorders | - | - | - | - | 8 |
| TOTAL | 43 | 39 | 23 | 17 | 28 |

Electronic Information Resources and Access

The University Libraries provide access to a variety of digital information, including the library catalog and other local

| Resource Sharing and Document Delivery Interlibrary Loan | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|-------|--------|--------|--------|--------|
| Items Borrowed | 9,498 | 12,263 | 16,180 | 20,144 | 20,020 |
| Items Loaned | 4,013 | 5,142 | 5,664 | 5,776 | 4,616 |
| Oakland Library Consortium | | | | | |
| Items Borrowed | 737 | 490 | 306 | 63 | 520 |
| Items Loaned | 69 | 56 | 228 | 127 | 147 |
| PALCI (Pennsylvania Academic Library Consortium, Inc.) | | | | | |
| Items Borrowed | 821 | 1,653 | 1,846 | 2,157 | 5,441 |
| Items Loaned | 1,414 | 1,626 | 2,757 | 3,532 | 2,119 |
| Electronic Current Awareness Service Individuals using site license subscription | 79 | 65 | 67 | 71 | 72 |

VIDEO VIEWING CLUSTER

FALL 2002 TO Fall 2006

| | 2002 | 2003 | 2004 | 2005 | 2006 |
|-------------------|------|------|------|------|------|
| VCR carrels | 15 | 14 | 14 | 14 | 14 |
| Laserdisc carrels | 13 | 7 | 7 | 7 | 7 |
| DVD carrels | 14 | 14 | 15 | 15 | 15 |

EBERLY CENTER FOR TEACHING EXCELLENCE

Since 1982, the Eberly Center's mission has been to enhance the quality of education at Carnegie Mellon by working with faculty and graduate students to help them better understand and improve student learning. Toward that end, we have collaborated with over a thousand faculty members across every department. This brief document describes both the work of the Eberly Center and the rationale behind our approach.

OUR APPROACH IS...

- <u>Learner-centered</u>: We put student learning at the center of the teaching process, helping faculty and graduate students to develop course objectives, assessments, and instructional activities that together support and promote student learning and performance.
- š <u>Educational</u>: We help faculty and graduate students gain a deeper understanding of the principles that underlie effective learning and teaching so that they can make appropriate teaching decisions for their own courses. We do not simply dispense teaching tips.
- š <u>Collaborative</u>: We work closely with faculty and graduate students to help them identify their strengths as teachers and to jointly devise strategies for course improvement and educational innovation.
- Š <u>Constructive</u>: We focus on providing constructive and practical feedback to help our colleagues succeed as educators. Our role is to support teaching, not to judge performance.
- Š <u>Data-driven</u>: We gather and analyze extensive data through classroom observations, student focus groups, and examinations of teaching materials. We then help faculty members and graduate students use these data to diagnose strengths and identify areas for improvement.
- <u>Research-based</u>: We apply state-of-the-art research from a range of disciplines to help faculty and graduate students design and teach more effective courses. We also conduct original research where gaps in the literature exist.

WE OFFER ...

- š Individual consultations with faculty and graduate students
- š Resources for faculty, including sample syllabi, model grading rubrics, informational booklets and webbased documents
- š Workshops and seminars for faculty, graduate students, and department heads
- š Collaboration with faculty on educational projects
- š Institutional research that impacts educational practice and policy

WE WORK WITH . . .

Š All faculty members who teach (e.g., tenure-track, teaching-track, visiting, adjunct) and graduate students (teaching assistant, instructor, and future faculty) who want to reflect up-12 Tw - Tw()-1263[)-1s Tw 9.8.147 Td.I1l8p wac3.1aT2:3

TEACHING & ACADEMIC SUPPORT, ADDITIONAL FACTS & FIGURES ACADEMIC YEAR 2005-2006

Pittsburgh Council of Higher Education (PCHE) Colleges:

Carlow University

Carnegie Mellon University

Chatham College

Community College of Allegheny County (CCAC)

Duquesne University

La Roche College

Pittsburgh Theological Seminary

Point Park University

Robert Morris University University of Pittsburgh

Units Taken by Carnegie Mellon Students at other PCHE Schools

| | Stude | ent Level | |
|-------------------------------|----------------------|-----------------|--------------|
| Student's College Affiliation | <u>Undergraduate</u> | <u>Graduate</u> | <u>Total</u> |
| CFA | 159 | 27 | 186 |
| CIT | 261 | 297 | 558 |
| Heinz | 0 | 92 | 92 |
| H&SS | 456 | 252 | 708 |
| Interdisciplinary | 258 | 36 | 294 |
| MCS | 99 | 333 | 432 |
| SCS | 159 | 135 | 294 |
| Tepper | 174 | 54 | 228 |
| TOTAL | 1,566 | 1,226 | 2,792 |

Units Taught to other PCHE Students by Carnegie Mellon

| <u>College</u> | <u>Total</u> |
|-------------------|--------------|
| CFA | 135 |
| CIT | 417 |
| Heinz | 234 |
| H&SS | 582 |
| Interdisciplinary | 27 |
| MCS | 272 |
| SCS | 300 |
| Tepper | 255 |
| Other | 921 |
| TOTAL | 3,143 |

Units Taken by Carnegie Mellon Students at PCHE Schools

| | Stude | ent Level | |
|---------------------------------|----------------------|-----------------|-------|
| PCHE School | <u>Undergraduate</u> | <u>Graduate</u> | Total |
| Chatham College | 24 | 0 | 24 |
| Community College Of Allegheny | 72 | 0 | 72 |
| County (CCAC) | | | |
| Duquesne University | 45 | 6 | 51 |
| Pittsburgh Theological Seminary | 0 | 9 | 9 |
| Point Park University | 0 | 18 | 18 |
| University of Pittsburgh | 1,425 | 1,193 | 2,618 |
| TOTAL | 1,566 | 1,226 | 2,792 |

Units Taken by Carnegie Mellon Students at Pittsburgh Filmmakers

| | Student Level | | | |
|-----------------------|---------------|-----------------|------------|-------|
| | Undergraduate | <u>Graduate</u> | Non-degree | Total |
| Pittsburgh Filmmakers | 612 | 63 | 27 | 702 |