Graduate Council Curriculum Committee November 24, 2014 12:00 p.m., MH 395

Agenda

- 1. Welcome and call to order
- 2. Approval of the minutes from the last meeting
- 3. Review of Graduate Equipment Fee Requests
 - Computer Science MS and PhD CECS
 - Computer Engineering MS and PhD CECS
 - Digital Forensics MS CECS
 - El Engineering MS and PhD CECS
 - Materials Science and Engineering MS and PhD CECS
 - Political Science MA COS
 - Security Studies PhD COS
 - Sociology PhD-COS
- 4. Review of Materials & Supplies Fee Requests
- 5. Adjournment

Members of the Graduate Council Curriculum Committee:

Deborah Breiter, Chair, RCHM Steven Collins, COS Paul Dombrowski, CAH Charles Kelliher, CBA Art Weeks, CECS Steven Ebert, COM Linda Gibson-Young, CON Guifang Li, COP Donna Malvey, COHPA Joyce Nutta, CEHP Terrie Sypolt, LIB Lucretia Cooney, GSA Jana Jasinski, CGS Liaison



Graduate Equipment Fee Request Form

Forward to your college office

This form is to be used for requests to add, change, or delete equipment fee requests for a program. All requests for the next catalog must be submitted by October 24 for the November agenda deadline of the Graduate Council Committee (Dean Ross Hinkle).

Request routing: 1) Department Chair to College Dean's Office; 2) Dean's Office; 3) Graduate Council Curriculum Committee; 4) A list of approved requests will be forwarded to the provost for final approval. 5) University Board of Trustees — information only.

Under the rules of the Board of Trustees for the University of Central Florida, equipment fees may be assessed for the use and replacement of equipment. Fees take effect in the fall semester of each year. Departments must maintain detailed accounting of all expenditures and report them to the Dean of the Graduate College on July 1 of each year. Equipment Fee maximum per semester: \$90.00 Full-time; \$45.00 Part-time.

| Use one form for each program request: | | | |
|--|--|---------------|----------|
| Date Submitted: 10/15/2014 | College: Engineering & Com | puter Science | |
| Department: Electrical Engineering & Computer Science | Submitted by: Michael Por | well | |
| Degree program: Computer Science M 5 + Ph d | | | |
| | | | |
| Equipment Fees: Fall graduate student enrollment: 217 F | | Part-time | . 39 |
| | full-time #34 | Part-time | \$17 |
| Provide detailed Justification for the Request: (use additional sheet if necessary) | · · · · · · · · · · · · · · · · · · · | | |
| A fee is required to help maintain and update the equipm have a 3-5 year life span. Most of the item costs are split the usage by each program. Please see the attachments Provide detailed cost information about the expenses for which the fee (use additional sheet if necessary) | t across multiple s for the breakdo | programs | based on |
| Equipment | C | ost | Lifetime |
| See Attached | | | |
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| | Total of Costs: |) | , |
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Equipment replacement/upgrade cost/year: \$13,859.20

| Maintenance | Cost | Lifetime |
|---|----------------|------------------|
| 10% contingency added to total estimated costs to cover any unexpected costs. | | |
| All hardware purchases include warranties to cover the life of the hardware. | | |
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| Total of Costs | 1 | |
| These are included in the cost of the hardward cost of the hardward cost for a suitaneous contracts per years. | are listed | in the attachmen |
| tal cost for equipment replacement, upgrade, maintenance, and maintenance contracts per year: | | |
| ny special conditions or exemptions must be identified: | | si Jani |
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| ayment Details | | |
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| count Number to Deposit Fees: 16400804 Im Type: | Date | 10/16/14 |
| count Number to Deposit Fees: 16400804 | Date | 10/16/14 |
| m Type: Intact Person: Michael Powell one Number: ECOMMENDED APPROVAL (all approval levels must be signed) partment Chair (Print) Gary T. Lewess (Signature) Charles H. Reilly (Signature) | Date | |
| m Type: Intact Person: Michael Powell 407-882-1337 ECOMMENDED APPROVAL (all approval levels must be signed) Partment Chair (Print) Gary T. Lewess (Signature) Charles H. Reilly (Signature) | | |
| ECOMMENDED APPROVAL (all approval levels must be signed) Epartment Chair (Print) Charles H. Reilly (Signature) | Date | |
| ollege Academic (Print) Charles 4- Reilly (Signature) Charles H July andards | Date | |
| ## Type: | Date Date Date | |

Explanation for Attached Spreadsheets

The top of each sheet has a usage percentage for each program. Each room has a sheet that shows the breakdown of the annual cost each program has to cover. There are two sheets, HEC-102 Servers and HEC-322 Routers, that show a broken down itemization of components in their corresponding rooms. HEC-208 is listed slightly differently, as a portion of the equipment is used for research. The percentages for teaching/research were determined by Dr. LaViola.

The General spreadsheet shows items and personnel that are utilized in more than one room. The Total spreadsheet shows the information gathered from the room spreadsheets, and calculates the fees for each program. Required Fee is the minimum amount required to cover costs and the listed contingency percentage. The Requested Fee shows what we would like to charge the students. Beneath the Requested Fee you can see the difference between the required fee to maintain our current operations, and the amount we will receive. To the right of the Requested Fee calculations, you can see what our actual contingency percentage will be with the rounding in place, and you can see how much we receive for our contingency fund.

Abbreviations on the spreadsheet:

AC – Annual Cost

UGCS – Undergraduate Computer Science

GCS - Graduate Computer Science

IT – Information Technology

MSDF - Digital Forensics

| | Total | Robotic Arm | 3D Projector | Tablets | Desktop PC | Video Game Consoles | 55" Pixel Monitor | 80" TV | 55" TV | TV Wall PCs | ltem Qu | 50.0% 50.0% | |
|--------------------------------|---|--|-------------------------|---------------------------|----------------------------------|------------------------|-------------------------|-------------------------|--------------------------|---------------------------|-------------------------------------|-----------------|--|
| | Total Cost \$195,300.00 | 2 \$12,000.00 \$24,000.00 1 \$50,000.00 \$50,000.00 | 1 \$2,000.00 \$2,000.00 | 10 \$1,500.00 \$15,000.00 | 12 \$2,000.00 \$24,000.00 | 20 \$365.00 \$7,300.00 | 1 \$7,000.00 \$7,000.00 | 1 \$4,000.00 \$4,000.00 | 8 \$1,500.00 \$12,000.00 | 1 \$50,000.00 \$50,000.00 | antity Item Cost Total Cost Estimat | 50.0% 0.0% 0.0% | |
| Teaching % 31.5% 68.5% | | 5 25% 7 25% | 10 10% | 10 50% | 10 50% | 5 50% | 3 20% | 3 25% | 3 50% | 5 10% | ted Life Teaching % | 0.0% | |
| % \$11,078.40 % \$24,091.12 | Total Annual Cost \$35,169.52 | \$4,800.00 \$7,142.86 | \$200.00 | \$1,500.00 | \$2,400.00 | \$1,460.00 | \$2,333.33 | \$1,333.33 | \$4,000.00 | \$10,000.00 | Total Annual Cost Annual Co | | |
| Teaching Charges | Annual | \$2,400.00 \$7,142.86 | \$200.00 | \$150.00 | \$200.00 | \$73.00 | \$2,333.33 | \$1.333.33 | \$500.00 | \$10,000.00 | st Per Item | | |
| \$5,539.20 \$5,539.20 | AC-UGCS AC-GCS \$17,584.76 \$17,584.76 | \$2,400.00 \$2,400.00 \$3,571.43 \$3,571.43 | \$100.00 \$100.00 | \$750.00 \$750.00 | \$1,200.00 \$1,200.00 | | T | \$666.67 \$666.67 | \$2,000.00 \$2,000.00 | \$5,000.00 \$5,000.00 | AC-UGCS AC-GCS | | |
| \$0.00 | AC-IT AC-I \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | AC-IT AC-M | | |
| \$0.00 \$0.00 | WSDF AC-Other \$0.00 \$0.00 | \$0.00 \$0.00 \$0.00 \$0.00 | | \$0.00 \$0.00 | | | | | \$0.00 \$0.00 | \$0.00 \$0.00 | C-MSDF AC-Other | | |

| Total | Title Pay Systems Progammer \$50, | Server | Lab Monitor FTK firense | Systems Programmer | ltem Quan |
|---|---|------------------------------|---------------------------|-------------------------------|---------------------------------|
| Total Cost \$98,189.46 | Pay Fringe % Total \$50,499.97 27.90% \$64,589.46 | | 1 \$15,600.00 \$15,600.00 | 1 \$64,589.46 \$64,589.46 | tity Item Cost Total Cost Estin |
| Average Us | | O F | | 1 | ated Life |
| UCCS CCS IT MSDE Other 36.3% 17.5% 7.5% 38.8% 0.0% | | 20.0% 20.0% 10.0% 50.0% 0.0% | 0.0% 0.0% | 75.0% 0.0% 20.0% 5.0% 0.0% | UGCS GCS IT MSDF Other |
| Total Annual Cost \$87,789.46 | | \$2,600.00 | \$15,600.00 | \$64,589.46 | Total Annual Cost Ann |
| Bruny | | \$2,600.00 | \$15,600.00 | \$64,589.46 | ual Cost Per Item |
| AC-UGCS AC-GCS AC-IT AC-MSDF S56,762.10 \$8,320.00 \$13,177.89 \$9,529.47 | | | \$7,800.00 | \$48,442.10 \$0.00 \$12 | AC-UGCS AC-GCS AC-I |
| П AC-MSDF AC 3,177.89 \$9,529.47 | | \$260.00 \$1,300.00 | | \$0.00 \$12,917.89 \$3,229.47 | T AC-MSDF AC |
| Other \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Other |

| Room | Total Cost T | otal Annual Cost C | Contingency |
|----------|--------------|--------------------|-------------|
| ENG1-187 | \$88,600.00 | \$19,462.86 | \$973.14 |
| NG1-188 | \$88,600.00 | \$19,462.86 | \$973.14 |
| IEC-102 | \$126,256.18 | \$23,878.38 | \$1,193.92 |
| HEC-208 | \$195,300.00 | \$11,078.40 | \$553.92 |
| HEC-308 | \$92,800.00 | \$19,982.86 | \$999.14 |
| HEC-322 | \$179,019.33 | \$40,498.53 | \$2,024.93 |
| ieneral | \$98,189.46 | \$87,789.46 | \$4,389.47 |

\$868,764.97

\$222,153.35

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| \$0.00 | \$9,529.47 | \$13,177.89 | \$8,320.00 | \$56,762.10 \$8,320.00 \$13,177.89 |
|----------|------------|--------------------|-----------------------|------------------------------------|
| \$0.00 | \$1,996.33 | \$0.00 \$34,509.55 | \$0.00 | \$3,992.65 |
| \$0.00 | \$0.00 | \$4,995.71 | \$0.00 | \$14,987.14 |
| \$0.00 | \$0.00 | \$0.00 | \$5,539.20 \$5,539.20 | \$5,539.20 |
| \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$23,878.38 |
| \$0.00 | \$0.00 | \$3,892.57 | \$0.00 | \$15,570.29 |
| \$0.00 | \$0.00 | \$3,892.57 | \$0.00 | \$15,570.29 |
| AC-Other | AC-MSDF | AC-IT | AC-GCS | C-UGCS |

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| \$6,815.00 | 143,115.05 | 136,300.05 | UGCS | \$56,762.10 | \$3,992.65 | \$14,987.14 | \$5,539.20 | \$23,878.38 | \$15,570.29 | \$15,570.29 | -UGCS |
| \$692.96 | \$14,552.16 | \$13,859.20 | AC-GCS | | \$0.00 | \$0.00 | \$5,539.20 | \$0.00 | \$0.00 | \$0.00 | Ac-GCS |
| \$692.96 \$3,023.42 | \$143,115.05 \$14,552.16 \$63,491.72 | \$136,300.05 \$13,859.20 \$60,468.30 \$11,525.80 | AC-IT | \$8,320.00 \$13,177.89 | \$0.00 \$34,509.55 | \$4,995.71 | \$0.00 | \$0.00 | \$3,892.57 | \$3,892.57 | AC-IT |
| \$576.29 | \$12,102.09 | \$11,525.80 | AC-MSDF | \$9,529.47 | \$1,996.33 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | 00.00 | AC-MSDF |
| \$0.00 | \$0.00 | \$0.00 | AC-Other | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | AC-Other |

| | | | | · . I | \$6,815.00 | \$692.96 | \$692.96 \$3,023.42 | \$576.29 | \$0 |
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| UGCS-Part | GCS-Fi | - | G | CS-Part IT | -Full | IT-Part | MSDF-Full | MSDF-Part | |
| | 326 | | 132 | 175 | 395 | 275 | 7 | 85 | |
| | 632 | | 65 | 19 | 33 | 404 | 13 | 39 | |
| | 405 | | 176 | 215 | 429 | 276 | 16 | 100 | |
| | 1363 | | 373 | 409 | 857 | 955 | 36 | 224 | |
| | 454 | | 124 | 136 | 286 | 318 | 12 | 75 | |
| | | | | | | | | | |

789 38 979 1806 602

| fference Required/ | er Semester | otal Gained | equested Fee | | er Semester | otal Fee | equired Fee | |
|--------------------|--|--|--------------|-----------|--|---|-------------|-----------|
| Request | | | | | | | | |
| -\$963.84 | \$34,314.00 | \$102,942.00 | \$57.00 | UGCS-Full | \$34,635.28 | \$103,905.84 | \$57.53 | UGCS-Full |
| -\$1,045.21 | \$12,721.33 | \$38,164.00 | \$28.00 | JGCS-Part | \$13,069.74 | \$39,209.21 | \$28.77 | JGCS-Part |
| | | | | GCS-Full | | | | GCS-Full |
| -\$74.06 | \$3,108.33 | \$9,325.00 | \$25.00 | | \$3,133.02 | \$9,399.06 | \$25.20 | |
| -\$74.06 -\$245.10 | \$1,636.00 | \$9,325.00 \$4,908.00 | \$12.00 | GCS-Part | \$1,717.70 | \$5,153.10 | \$12.60 | GCS-Part |
| -\$494.62 | \$3,108.33 \$1,636.00 \$13,426.33 \$7,321.67 | \$40,279.00 \$21,965.00 \$2,916.00 \$8,960.0 | \$47.00 | IT-Full | \$3,133.02 \$1,717.70 \$13,591.21 \$7,572.70 \$981.25 \$3,052.79 | \$9,399.06 \$5,153.10 \$40,773.62 \$22,718.09 \$2,943.75 \$9,158.34 | \$47.58 | m-rull |
| -\$753.09 | \$7,321.67 | \$21,965.00 | \$23.00 | IT-Part | \$7,572.70 | \$22,718.09 | \$23.79 | IT-Part |
| -\$27.75 | | \$2,916.00 | \$81.00 | MSDF-Full | \$981.25 | \$2,943.75 | \$81.77 | MSDF-Full |
| -\$198.34 | \$972.00 \$2,986.67 | \$8,960.00 | \$40.00 | MSDF-Part | \$3,052.78 | \$9,158.34 | \$40.89 | MSDF-Part |

| \$7,305.65 | |
|------------------|----|
| ntingency Amount | 6 |
| 3.29% | |
| al Contingency % | E. |



Graduate Equipment Fee Request Form

Forward to your college office

This form is to be used for requests to add, change, or delete equipment fee requests for a program. All requests for the next catalog must be submitted by October 24 for the November agenda deadline of the Graduate Council Committee (Dean Ross Hinkle).

Request routing: 1) Department Chair to College Dean's Office; 2) Dean's Office; 3) Graduate Council Curriculum Committee; 4) A list of approved requests will be forwarded to the provost for final approval. 5) University Board of Trustees — information only.

Under the rules of the Board of Trustees for the University of Central Florida, equipment fees may be assessed for the use and replacement of equipment. Fees take effect in the fall semester of each year. Departments must maintain detailed accounting of all expenditures and report them to the Dean of the Graduate College on July 1 of each year. Equipment Fee maximum per semester: \$90.00 Full-time; \$45.00 Part-time.

| Use one form for each program request: Date Submitted: 10/22/2014 Department: EECS Dept., ECE Division Degree program: Computer Engineering M.S. and Ph. D. | College: Engr. and Compusion Submitted by: Dr. Zhihua Quand Ph. D. | | |
|---|--|-----------|----------|
| Equipment Fees: Fall graduate student enrollment: Fee amount per semester: 1960. | Full-time <u>55</u> Full-time <u>28</u> | Part-time | |
| Provide detailed Justification for the Request: (use additional sheet if necessary) See attachment for affected courses. Provide detailed cost information about the expenses for which the fee | ee is to be assesse | ed. | |
| (use additional sheet if necessary) Equipment See attachment for itemized details | | Cost | Lifetime |
| | | | |
| | Total of Costs: | | |

| Equipment replacement/upgrade cost/year: | | | |
|--|---|---|--------------------|
| Maintenance | | Cost | Lifetime |
| Maintenance plans and maintenance cost/year: | Total of Costs: | | |
| Total cost for equipment replacement, upgrade, maintenance, and ma Any special conditions or exemptions must be identified: | iintenance contracts per year: | | |
| Payment Details 16220804 Account Number to Deposit Fees: tem Type: Theresa Collins Contact Person: 407-823-2637 | | | |
| College Academic (Print) Charles H. Revilly (Standards College Dean (Print) Michael Georgia publics (Standards Council (Print) (Standards Council (Print) (Standards Dean (Pr | Signature) Signature) Signature) Signature) Signature) Signature) | Date 10/ Date 10/ Date 10/ Date 10/ Date 10/ Date 10/ | 122/2014 123/14 |
| Approval Provost and Vice President for Academic Affairs: | | | |

Laboratory Equipment Cost ReportDepartment of Electrical Engineering and Computer Science

Revision Date: Septermber 9, 2014

| Room | Anı | nualized Cost | Cost | EE BS | CpE BS | EE Grad | CpE Grad |
|-----------------|-----|---------------|--------------------|-------|--------|---------|----------|
| ENGR-120 | \$ | 2,310.19 | \$ 47,734.00 | 0% | 0% | 100% | 0% |
| ENGR-163 | \$ | 5,846.81 | \$ 170,824.00 | 0% | 0% | 100% | 0% |
| ENGR-257 | \$ | 41,158.08 | \$ 255,559.50 | 53% | 40% | 2% | 5% |
| ENGR-274 | \$ | 23,525.73 | \$ 83,429.00 | 39% | 31% | 15% | 15% |
| ENGR-456 | \$ | 57,595.41 | \$ 264,078.20 | 55% | 45% | 0% | 0% |
| ENGR-461 | \$ | 25,129.48 | \$ 327,368.00 | 30% | 0% | 70% | 0% |
| ENGR-471 | \$ | 14,299.06 | \$ 140,507.00 | 55% | 45% | 0% | 0% |
| ENGR-474 | \$ | 28,090.08 | \$ 258,219.59 | 55% | 45% | 0% | 0% |
| HEC-302 | \$ | 1,691.51 | \$ 261,415.00 | 0% | 0% | 100% | 0% |
| HEC-338 | \$ | 13,173.00 | \$ 53,092.00 | 50% | 40% | 5% | 5% |
| HEC-406 | \$ | 6,998.79 | \$ 271,240.00 | 0% | 0% | 100% | 0% |
| Senior Engineer | \$ | 80,000.00 | \$ 80,000.00 | 45% | 40% | 15% | 0% |
| Total | \$ | 299,818.13 | \$ 2,213,466.29 | | • | | |

BSEE Only

| Room | Anı | nualized Cost | %UG | Fee Cost |
|-----------------|-----|---------------|------|------------------|
| ENGR-257 | \$ | 41,158.08 | 55% | \$ 22,636.94 |
| ENGR-274 | \$ | 23,525.73 | 39% | \$ 9,175.04 |
| ENGR-456 | \$ | 57,595.41 | 55% | \$ 31,677.48 |
| ENGR-461 | \$ | 25,129.48 | 30% | \$ 7,538.84 |
| ENGR-471 | \$ | 14,299.06 | 55% | \$ 7,864.48 |
| ENGR-474 | \$ | 28,090.08 | 55% | \$ 15,449.55 |
| HEC-338 | \$ | 13,173.00 | 50% | \$ 6,586.50 |
| HEC-406 | \$ | 6,998.79 | 100% | \$ 6,998.79 |
| Senior Engineer | \$ | 80,000.00 | 45% | \$ 36,000.00 |
| Total | \$ | 289,969.63 | | \$ 143,927.61 |

| Status | AY Total | Fall 2014 | Summer 2014 | Spring 2014 |
|-----------|----------|-----------|-------------|-------------|
| Full Time | 1010 | 504 | 10 | 496 |
| Part Time | 1027 | 290 | 457 | 280 |
| Total | 2037 | 794 | 467 | 776 |

| FT EQ Fee | \$ 94 | Fee=Fee Cost / (FT + PT/2) |
|-----------|----------|----------------------------|
| PT EQ Fee | \$ 47 | |

BCpEE Only

| Room | Anı | nualized Cost | %UG | Fee Cost |
|-----------------|-----|---------------|-----|------------------|
| ENGR-257 | \$ | 41,158.08 | 45% | \$ 18,521.13 |
| ENGR-274 | \$ | 23,525.73 | 31% | \$ 7,292.98 |
| ENGR-456 | \$ | 57,595.41 | 45% | \$ 25,917.93 |
| ENGR-471 | \$ | 14,299.06 | 45% | \$ 6,434.58 |
| ENGR-474 | \$ | 28,090.08 | 45% | \$ 12,640.54 |
| HEC-338 | \$ | 13,173.00 | 40% | \$ 5,269.20 |
| Senior Engineer | \$ | 80,000.00 | 40% | \$ 32,000.00 |
| Total | \$ | 257,841.36 | | \$ 108,076.36 |

| Status | AY Total | Fall 2014 | Summer 2014 | Spring 2014 |
|-----------|----------|-----------|-------------|-------------|
| Full Time | 908 | 496 | 11 | 401 |
| Part Time | 771 | 194 | 392 | 185 |
| Total | 1679 | 690 | 403 | 586 |

| FT EQ Fee | \$ 84 | Fee=Fee Cost / (FT + PT/2) |
|-----------|----------|----------------------------|
| PT EQ Fee | \$ 42 | |

Graduate EE Only

| Room | Anı | nualized Cost | %G | Fee Cost |
|-----------------|-----|---------------|------|-----------------|
| ENGR-120 | \$ | 2,310.19 | 100% | \$ 2,310.19 |
| ENGR-163 | \$ | 5,846.81 | 100% | \$ 5,846.81 |
| ENGR-274 | \$ | 23,525.73 | 15% | \$ 3,528.86 |
| ENGR-461 | \$ | 25,129.48 | 70% | \$ 17,590.64 |
| ENGR-302 | \$ | 1,691.51 | 100% | \$ 1,691.51 |
| HEC-338 | \$ | 13,173.00 | 5% | \$ 658.65 |
| HEC-406 | \$ | 6,998.79 | 100% | \$ 6,998.79 |
| Senior Engineer | \$ | 80,000.00 | 15% | \$ 12,000.00 |
| Total | \$ | 158,675.51 | | \$ 50,625.44 |

| Status | AY Total | Fall 2014 | Summer 2014 | Spring 2014 |
|-----------|----------|--------------|-------------|-------------|
| Full Time | 337 | 152 | 56 | 129 |
| Part Time | 135 | 55 | 30 | 50 |
| Total | 472 | 207 | 86 | 179 |
| FT EQ Fee | \$ 125 | Fee=Fee Cost | (FT + PT/2) | |
| PT EQ Fee | \$ 63 | | | |

Graduate CpE Only

| Room | Anr | ualized Cost | %G | Fee Cost |
|-----------------|-----|--------------|-----|----------------|
| ENGR-274 | \$ | 23,525.73 | 15% | \$ 3,528.86 |
| HEC-338 | \$ | 13,173.00 | 5% | \$ 658.65 |
| Senior Engineer | \$ | 80,000.00 | 0% | \$ |
| Total | \$ | 116,698.73 | | \$ 4,187.51 |

| Status | AY Total | Fall 2013 | Summer 2013 | Spring 2013 | |
|-----------|----------|-----------|-------------|-------------|--|
| Full Time | 106 | 55 | 10 | 41 | |
| Part Time | 82 | 30 | 19 | 33 | |
| Total | 188 | 85 | 29 | 74 | |

| FT EQ Fee | \$ 28 | Fee=Fee Cost / (FT + PT/2 |
|-----------|----------|---------------------------|
| PT EQ Fee | \$ 14 | |

ENGR-120 Probe Station Laboratory

EEE-5332C Thin Film Technology EEE-5356C Fabrication of Solid-State Devices

| Item | Α | nnualized Cost | Cost | Class Use | Purchased | Replace |
|---|----|----------------|-----------------|-----------|-----------|---------|
| 2 Probe Stations | \$ | 216.56 | \$ 15,400.00 | 90% | 1986 | 2050 |
| 4 Probe Tips, Lucus Signatone SE-20TB | \$ | 32.00 | \$ 160.00 | 100% | 2010 | 2015 |
| 3 Micropositioners, Lucus Signatone S-725SRM | \$ | 176.70 | \$ 1,767.00 | 100% | 2010 | 2020 |
| 3 Micropositioners, Lucus Signatone S-725SLM | \$ | 176.70 | \$ 1,767.00 | 100% | 2010 | 2020 |
| 8 Probe Tip Holders, Lucus Signatone U-S-1-CB | \$ | 64.00 | \$ 640.00 | 100% | 2010 | 2020 |
| 2 Curve Tracers | \$ | 207.69 | \$ 3,000.00 | 90% | 2002 | 2015 |
| C-V Plotter, HP 4280A | \$ | 789.47 | \$ 15,000.00 | 100% | 2001 | 2020 |
| Monochromatic Profilometer, Spectroline | \$ | 147.06 | \$ 5,000.00 | 100% | 1986 | 2020 |
| Electronic Lock | \$ | 500.00 | \$ 5,000.00 | 100% | 2013 | 2023 |
| Total | \$ | 2,310.19 | \$ 47,734.00 | | V | |

ENGR-163 Microelectronics Laboratory

EEE-5332C Thin Film Technology EEE-5356C Fabrication of Solid-State Devices

Revision Date: September 9, 2014

Some equipment items are used for both instruction and research. The percentage of instructional use is shown.

| Item | Ann | ualized Cost | Cost | Class Use | Purchased | Replace |
|---------------------------------|-----|--------------|------------------|-----------|-----------|---------|
| Edwards Diffusion Evaporator | \$ | 35.71 | \$ 1,500.00 | 100% | 1983 | 2025 |
| Bruce Oxidation Furnace | \$ | 109.29 | \$ 5,100.00 | 90% | 1983 | 2025 |
| Bruce Diffusion Furnaces | \$ | 218.57 | \$ 10,200.00 | 90% | 1983 | 2025 |
| Furnace Maintenance | \$ | 250.00 | \$ 250.00 | 90% | 1983 | 2025 |
| Headway Resist Spinner | \$ | 177.75 | \$ 6,715.00 | 90% | 1986 | 2020 |
| 3 Resist Bake Ovens | \$ | 103.85 | \$ 4,500.00 | 90% | 1986 | 2025 |
| Karlsuss Mask Aligner | \$ | 669.23 | \$ 29,000.00 | 90% | 1986 | 2025 |
| 3-Chamber Cryo system | \$ | 42.19 | \$ 3,000.00 | 90% | 1986 | 2050 |
| 3-Chamber Cryo system Upgrades | \$ | 900.00 | \$ 2,000.00 | 90% | 2013 | 2015 |
| Jandel 4pt Probe | \$ | 225.00 | \$ 5,000.00 | 90% | 2005 | 2025 |
| 4 Vacuum Pumps | \$ | 507.78 | \$ 11,284.00 | 90% | 2010 | 2030 |
| Profilometer, Bruker Dektek 150 | \$ | 1,119.94 | \$ 49,775.00 | 90% | 2010 | 2050 |
| Electronic Lock | \$ | 500.00 | \$ 5,000.00 | 100% | 2013 | 2023 |
| Veccoprofile meter, Wyko NT3300 | \$ | 654.76 | \$ 27,500.00 | 100% | 1983 | 2025 |
| 2 - Microscope, Unitron | \$ | 85.11 | \$ 4,000.00 | 100% | 1983 | 2030 |
| 4-Point probe, Magnetron 3-700 | \$ | 135.14 | \$ 5,000.00 | 100% | 1983 | 2020 |
| Laptop Computer | \$ | 62.50 | \$ 500.00 | 100% | 2012 | 2020 |
| Refrigerator | \$ | 50.00 | \$ 500.00 | 100% | 2010 | 2020 |
| Total | \$ | 5,846.81 | \$ 170,824.00 | | | |

ENGR-257 Computing Systems Laboratory

EEE 3342 Introduction to Digital Circuits & Systems

EEL 3801C Computer Organization

EEL 4742 Embedded Systems

EEE 5722C FPGA Design

EEL 4612C Robust Controls

| ltem | Ann | ualized Cost | Cost | Purchased | Replace | |
|-------------------------------------|-----|--------------|------------------|-----------|---------|--|
| 41 Laboratory Computers | \$ | 6,833.33 | \$ 41,000.00 | 2009 | 2015 | |
| 20 Digital Trainer, Global PB505 | \$ | 400.00 | \$ 10,000.00 | 2000 | 2025 | |
| 42 Lab Stools | \$ | 900.00 | \$ 12,600.00 | 2000 | 2014 | |
| 24 Logic Analyzers for Workstations | \$ | 2,403.50 | \$ 4,807.00 | 2014 | 2016 | |
| 1 Textronics Logic Analyzer | \$ | 1,982.20 | \$ 19,822.00 | 2014 | 2024 | |
| 2 Large Screen Monitors | \$ | 1,666.67 | \$ 10,000.00 | 2014 | 2020 | |
| 20 Zedboards | \$ | 1,395.63 | \$ 5,582.50 | 2014 | 2018 | |
| 15 Kintex-7 Boards | \$ | 6,356.25 | \$ 25,425.00 | 2014 | 2018 | |
| 12 Lab Benches | \$ | 349.17 | \$ 10,475.00 | 2010 | 2040 | |
| 2 Electronic Lock | \$ | 1,000.00 | \$ 10,000.00 | 2013 | 2023 | |
| 2 Security Cameras | \$ | 200.00 | \$ 2,000.00 | 2011 | 2021 | |
| 8 Quanser Linear Controls Stations | \$ | 16,944.67 | \$ 101,668.00 | 2013 | 2019 | |
| 10 MatLab License | \$ | 726.67 | \$ 2,180.00 | 2012 | 2015 | |
| Total | \$ | 41,158.08 | \$ 255,559.50 | | | |

ENGR-274 Evaluation, Proficiency and Test Center

EEE 3342C Digital Systems EEL 3801C Computer Organization EEL 3004C Electrical Network EEL 3123C Networks and Systems

| Item | Anr | nualized Cost | Cost | Purchased | Replace |
|---|-----|---------------|-----------------|-------------|---------|
| 18 Computer Tables | \$ | 1,119.60 | \$ 11,196.00 | 2012 | 2022 |
| 26 Dell 990 PC's | \$ | 5,200.00 | \$ 26,000.00 | 2011 | 2016 |
| Lab Sofa | \$ | 101.30 | \$ 1,013.00 | 2012 | 2022 |
| 45 Lab Chairs | \$ | 1,437.30 | \$ 14,373.00 | 2012 | 2022 |
| Small Lab Table | \$ | 39.50 | \$ 395.00 | 2012 | 2022 |
| 2 Activity Tables | \$ | 87.70 | \$ 877.00 | 2012 | 2022 |
| 2 32" Monitors | \$ | 92.00 | \$ 920.00 | 2012 | 2022 |
| 3 Marker Boards | \$ | 3,740.00 | \$ 780.00 | 2012 | 2040 |
| National Instruments EDA Software Suite | \$ | 5,000.00 | \$ 5,000.00 | annual cost | |
| 3 Electronic Locks | \$ | 1,500.00 | \$ 15,000.00 | 2013 | 2023 |
| MatLab Simulink 25 seat Network License | \$ | 3,875.00 | \$ 3,875.00 | annual cost | |
| 4 Security Cameras | \$ | 1,333.33 | \$ 4,000.00 | 2011 | 2014 |
| Total | \$ | 23,525.73 | \$ 83,429.00 | | 11 |

HEC-302 Medical Robotics Laboratory

EEL 5690. Introduction to Medical Robotics and Tele-Operation

| Item | Annua | lized Cost | Cost | Class Use | Purchased | Replace |
|---|-------|------------|------------------|-----------|-----------|---------|
| Phantom Omni (2) | \$ | 735.83 | \$ 4,415.00 | 100% | 2013 | 2019 |
| Medical Surgical Robot, University of Washington, Raven III | \$ | 675.68 | \$ 250,000.00 | 10% | 2013 | 2050 |
| 7 laboratory computers | \$ | 280.00 | \$ 7,000.00 | 20% | 2013 | 2018 |
| Total | \$ | 1,691.51 | \$ 261,415.00 | | | |

HEC-338 ECE Smart Laboratory

ECE Undergraduate Computer Laboratory for Course Support for all ECE

Revision Date: October 2, 2013

| Item | Annualized Cost | | | Cost | Purchased | Replace | |
|---|-----------------|-----------|----|-----------|-------------|---------|--|
| 22 Dell 990 PC's | \$ | 1,666.67 | \$ | 10,000.00 | 2009 | 2015 | |
| 7 Computer Tables | \$ | 500.00 | \$ | 5,000.00 | 2004 | 2014 | |
| 4 Lab Benches | \$ | 116.40 | \$ | 3,492.00 | 2011 | 2041 | |
| 32 Lab Stools | \$ | 685.71 | \$ | 9,600.00 | 2000 | 2014 | |
| Comsol Multi-Physic | \$ | 4.22 | \$ | 8,500.00 | Por | 2014 | |
| National Instruments EDA Software Suite | \$ | 5,000.00 | \$ | 5,000.00 | annual cost | 3 | |
| Cadence Software | \$ | 4,500.00 | \$ | 4,500.00 | annual cost | | |
| Electronic Lock | \$ | 500.00 | \$ | 5,000.00 | 2012 | 2022 | |
| 2 Security Cameras | \$ | 200.00 | \$ | 2,000.00 | 2011 | 2021 | |
| Total | \$ | 13,173.00 | \$ | 53,092.00 | | | |

HEC-406 Characterization Laboratory

EEE4463C MEMS DEVICES AND APPLICATIONS

| Item | Annualized Cost | Cost | Class Use | Purchased | Replace |
|--|-----------------|------------------|-----------|-----------|---------|
| Probing station, Micromanipulator 6000 | \$ 363.64 | \$ 40,000.00 | 50% | 1995 | 2050 |
| 2 - Parameter Analyzer, HP 4145B | \$ 1,188.33 | \$ 71,300.00 | 50% | 1995 | 2025 |
| C-V Plotter, HP 4280A | \$ 250.00 | \$ 15,000.00 | 50% | 1995 | 2025 |
| LCR Meter, HP 4275A | \$ 264.08 | \$ 15,845.00 | 50% | 1995 | 2025 |
| DC Voltage Source, HP 4140B | \$ 16.67 | \$ 1,000.00 | 50% | 1995 | 2025 |
| GPIB-USB, National Instrument | \$ 8.33 | \$ 500.00 | 50% | 1995 | 2025 |
| Low Temperature Measuring setup, | \$ 1,111.11 | \$ 40,000.00 | 50% | 2007 | 2025 |
| Water Circulator - Poly Science | \$ 83.33 | \$ 2,000.00 | 50% | 2008 | 2020 |
| Mechanical Vacuum Pump | \$ 20.00 | \$ 1,000.00 | 50% | 2000 | 2025 |
| Multimeter, HP 34401A | \$ 44.92 | \$ 1,123.00 | 100% | 1995 | 2020 |
| Universal Test Center, TENMA 72-5085 | \$ 240.00 | \$ 6,000.00 | 100% | 1995 | 2020 |
| Oscilloscope, Beckman Industrial 9060 | \$ 20.00 | \$ 500.00 | 100% | 1995 | 2020 |
| DC Power Supply, LEADER LPS 152 | \$ 20.00 | \$ 500.00 | 100% | 1995 | 2020 |
| 2 - Lock-in-Amplifier, EG&G 5210 | \$ 320.00 | \$ 8,000.00 | 100% | 1995 | 2020 |
| Digital Oscilloscope, HP 54503A | \$ 160.00 | \$ 4,000.00 | 100% | 1995 | 2020 |
| 3 - Micro Volt DMM, Keithly | \$ 60.00 | \$ 1,500.00 | 100% | 1995 | 2020 |
| Nano Voltmeter, Keithly 181 | \$ 120.00 | \$ 3,000.00 | 100% | 1995 | 2020 |
| Current Source, Keithly 224 | \$ 240.00 | \$ 6,000.00 | 100% | 1995 | 2020 |
| Controller, Lakeshore Crytronics 805 | \$ 120.00 | \$ 3,000.00 | 100% | 1995 | 2020 |
| Oscilloscope, Tektronics T922 | \$ 40.00 | \$ 1,000.00 | 100% | 1995 | 2020 |
| Four Point Probe, FPP5000 | \$ 240.00 | \$ 6,000.00 | 100% | 1995 | 2020 |
| 2 - Microscope | \$ 200.00 | \$ 5,000.00 | 100% | 1995 | 2020 |
| Oscilloscope, HP 1740A | \$ 40.00 | \$ 1,000.00 | 100% | 1995 | 2020 |
| Heating Plate, | \$ 10.00 | \$ 500.00 | 50% | 1995 | 2020 |
| Pulse Generator, HP 214B | \$ 59.80 | \$ 1,495.00 | 100% | 1995 | 2020 |
| Impedance Analyzer, HP 4192A | \$ 275.28 | \$ 6,882.00 | 100% | 1995 | 2020 |
| Curve Tracer, Tektronics 577 | \$ 400.00 | \$ 10,000.00 | 100% | 1995 | 2020 |
| UV-Visible Spectrometer, Varian 1000 | \$ 161.29 | \$ 10,000.00 | 50% | 2009 | 2040 |
| 5 - Desktop Computer, Dell | \$ 62.50 | \$ 500.00 | 50% | 2011 | 2015 |
| Electromagnet, SVS Labs | \$ 859.50 | \$ 8,595.00 | 100% | 2013 | 2023 |
| Total | \$ 6,998.79 | \$ 271,240.00 | | | |

ENGR-456 Senior Design Laboratory

EEL-4914 Senior Design I EEL-4915 Senior Design II

| ltem | Annual | ized Cost | Cost | Purchased | Replace |
|--|--------|-----------|------------------|-----------|---------|
| 18 Laboratory Computers | \$ | 3,000.00 | \$ 18,000.00 | 2009 | 2015 |
| 41 Logic Analyzers | \$ | 1,222.82 | \$ 13,451.00 | 2009 | 2020 |
| 1 SMT Soldering/Desoldering Station | \$ | 459.71 | \$ 6,436.00 | 2002 | 2016 |
| 1 LCR Meter | \$ | 27.96 | \$ 699.00 | 2000 | 2025 |
| 4 Power Supplies, Tektronix PWS4323 | \$ | 58.60 | \$ 1,172.00 | 2011 | 2031 |
| 4 Power Supplies, Tektronix PWS2721 | \$ | 48.38 | \$ 1,016.00 | 2010 | 2031 |
| 18 Function Generators, Tektronix AFG3022B | \$ | 3,245.56 | \$ 35,701.20 | 2010 | 2021 |
| 18 Multimeters, Tektronix DMM4050 | \$ | 1,440.91 | \$ 15,850.00 | 2010 | 2021 |
| 18 Oscilloscopes, Tektronix MSO4034B | \$ | 25,688.50 | \$ 102,754.00 | 2010 | 2014 |
| 6 Triple Output Power Supply, Agilent E3630A | \$ | 562.65 | \$ 11,253.00 | 2009 | 2029 |
| 18 Keithly Triple Channel Power Supply | \$ | 18,000.00 | \$ 18,000.00 | 2013 | 2014 |
| 30 Storage Cabinets | \$ | 200.00 | \$ 4,000.00 | 2014 | 2034 |
| 32 Lab Chairs | \$ | 533.33 | \$ 8,000.00 | 2000 | 2015 |
| 18 Lab Benches | \$ | 432.42 | \$ 14,270.00 | 2007 | 2040 |
| Senior Design Server | \$ | 619.00 | \$ 2,476.00 | 2014 | 2018 |
| Electronic Lock | \$ | 500.00 | \$ 5,000.00 | 2013 | 2023 |
| 4 Security Cameras | \$ | 1,333.33 | \$ 4,000.00 | 2011 | 2014 |
| 50 Seat Licence for Eagle PCB Software | \$ | 222.22 | \$ 2,000.00 | 2011 | 2020 |
| Total | \$ | 57,595.41 | \$ 264,078.20 | | |

ENGR-461 RF & Microwave Laboratory

EEL-4436 Microwave Engineering

EEL-5437 Microwave Engineering

EEL-5439 RF & Microwave Communications

EEL-5462 Antenna Analysis and Design

EEL-5425 RF & Microwave Measurement Techniques

Revision Date: September 9, 2014

Some equipment items are used for both instruction and research. The percentage of instructional use is shown.

| ltem | An | nualized Cost | Cost | Class Use | Purchased | Replace |
|---|----|---------------|------------------|-----------|-------------|---------|
| 8 Laboratory Computers | \$ | 1,333.33 | \$ 8,000.00 | 100% | 2009 | 2015 |
| 1 Network Printer | \$ | 90.00 | \$ 900.00 | 100% | 2005 | 2015 |
| Network Analyzer, Agilent 8357A | \$ | 9,271.93 | \$ 139,079.00 | 100% | 2002 | 2017 |
| 4 Netowrk Analyzer, Agilent E5471C | \$ | 5,000.00 | \$ 100,000.00 | 100% | 2014 | 2034 |
| 2 Spectrum Analyzers, Rohde \$ Schwarz | \$ | 1,070.00 | \$ 21,400.00 | 100% | 2007 | 2027 |
| 2 Signal Generators, Rohde \$ Schwarz | \$ | 585.45 | \$ 12,880.00 | 100% | 2007 | 2029 |
| UV Source | \$ | 145.15 | \$ 9,870.00 | 50% | 1986 | 2020 |
| Bake Oven | \$ | 37.50 | \$ 1,500.00 | 50% | 2000 | 2020 |
| Headway Resist Spinner | \$ | 56.40 | \$ 3,835.00 | 50% | 1986 | 2020 |
| ADS from Agilent Design Software - 50 seats | \$ | 1,404.00 | \$ 1,404.00 | 100% | annual cost | 2015 |
| Ansoft EM Analysis Software | \$ | 4,000.00 | \$ 4,000.00 | 100% | annual cost | 2015 |
| Computer Tables w/ Electrical | \$ | 535.71 | \$ 7,500.00 | 100% | 2013 | 2027 |
| 3 Electronic Locks | \$ | 1,500.00 | \$ 15,000.00 | 100% | 2013 | 2023 |
| 2 Security Cameras | \$ | 100.00 | \$ 2,000.00 | 50% | 2011 | 2021 |
| Total | \$ | 25,129.48 | \$ 327,368.00 | | | - |

ENGR-471 Signals and Communications Laboratory

EEL-3552 Signal Analysis & Communications

EEL-4140 Analog Filter Design

EEL-4512 Communication Systems

EEL-4515 Digital Communication Systems

Revision Date: October 2, 2013

| Item | Ann | ualized Cost | Cost | Purchased | Replace |
|---|-----|--------------|------------------|-----------|---------|
| 13 Oscilloscopes, Tektronix DPO4034B | \$ | 7,258.00 | \$ 72,580.00 | 2009 | 2019 |
| 13 Arbitrary Func. Generators, Tektronix AFG3022B | \$ | 2,077.00 | \$ 20,770.00 | 2009 | 2019 |
| 13 Digital Multimeter, Tektronix DMM4050 | \$ | 1,144.80 | \$ 11,448.00 | 2010 | 2020 |
| 13 Power Supplies, Tektronix PWT4301 | \$ | 395.45 | \$ 7,909.00 | 2011 | 2031 |
| 13 Dell 990 PC's | \$ | 2,166.67 | \$ 13,000.00 | 2009 | 2015 |
| 26 Lab Stools | \$ | 557.14 | \$ 7,800.00 | 2000 | 2014 |
| Electronic Lock | \$ | 500.00 | \$ 5,000.00 | 2013 | 2023 |
| 2 Security Cameras | \$ | 200.00 | \$ 2,000.00 | 2011 | 2021 |
| Total | \$ | 14,299.06 | \$ 140,507.00 | | • |

ENGR-474 Electronics Laboratory

EEL-3123 Networks and Systems EEE-3307 Electronics I EEE-4309 Electronics II

| Item | Ann | ualized Cost | Cost | Purchased | Replace |
|--|-----|--------------|------------------|-----------|---------|
| 21 Oscilloscopes, Tektronix DPO4034B | \$ | 10,716.20 | \$ 107,162.00 | 2011 | 2021 |
| 21 Arb. Func. Generators, Tektronix AFG3022B | \$ | 3,355.10 | \$ 33,551.00 | 2011 | 2021 |
| 40 Multimeters, Tektronix DMM40500 | \$ | 3,129.80 | \$ 31,298.00 | 2011 | 2021 |
| 21 Power Supplies, Tektronix PWT4301 | \$ | 638.75 | \$ 12,775.00 | 2011 | 2031 |
| 8 Lab Benches | \$ | 361.81 | \$ 11,216.00 | 2010 | 2041 |
| 41 Dell PC's | \$ | 6,833.33 | \$ 41,000.00 | 2009 | 2015 |
| 41 Lab Stools | \$ | 1,221.76 | \$ 12,217.59 | 2013 | 2023 |
| Electronic Lock | \$ | 500.00 | \$ 5,000.00 | 2013 | 2023 |
| 4 Security Cameras | \$ | 1,333.33 | \$ 4,000.00 | 2011 | 2014 |
| Total | \$ | 28,090.08 | \$ 258,219.59 | | |



Graduate Equipment Fee Request Form

Forward to your college office

This form is to be used for requests to add, change, or delete equipment fee requests for a program. All requests for the next catalog must be submitted by October 24 for the November agenda deadline of the Graduate Council Committee (Dean Ross Hinkle).

Request routing: 1) Department Chair to College Dean's Office; 2) Dean's Office; 3) Graduate Council Curriculum Committee; 4) A list of approved requests will be forwarded to the provost for final approval. 5) University Board of Trustees — information only.

Under the rules of the Board of Trustees for the University of Central Florida, equipment fees may be assessed for the use and replacement of equipment. Fees take effect in the fall semester of each year. Departments must maintain detailed accounting of all expenditures and report them to the Dean of the Graduate College on July 1 of each year. Equipment Fee maximum per semester: \$90.00 Full-time; \$45.00 Part-time.

| Use one form for each program request: | | | |
|--|--|---------------------------|------------|
| Date Submitted: 10/15/2014 | College: Engineering & Co | mputer Science | -To-lef-s- |
| Department: Electrical Engineering & Computer Science | Submitted by: Michael F | owell o | |
| Degree program: Digital Forensics | | | |
| Equipment Fees: | | | |
| Fall graduate student enrollment: | ull-time _16 | Part-time | 99 |
| Fee amount per semester: \$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\ | ull-time <u>16</u> ull-time <u>18</u> & 2 | Part-time | #41 |
| Provide detailed Justification for the Request: (use additional sheet if necessary) | | | |
| A fee is required to help maintain and update the equipm have a 3-5 year life span. Most of the item costs are split the usage by each program. Please see the attachments Provide detailed cost information about the expenses for which the fee | across multiples for the breakd | e programs lown of cos | based on |
| (use additional sheet if necessary) | | | |
| Equipment | | Cost | Lifetime |
| See Attached | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | Total of Costs: | | - |
| | | | |

Equipment replacement/upgrade cost/year: \$\frac{\\$11,525.80}{}

| Total of Costs: Total of Costs: These are included in the cost of the hardware list of cover the life of the hardware. Maintenance plans and maintenance cost/year: These are included in the cost of the hardware list of cover the life of the hardware. These are included in the cost of the hardware list of the hardware | | |
|--|--------|------------------|
| Total of Costs: These are included in the cost of the hardware list and maintenance plans and maintenance cost/year: These are included in the cost of the hardware list and maintenance contracts per year: Any special conditions or exemptions must be identified: Payment Details Account Number to Deposit Fees: Contact Person: Michael Powell Contact Person: Contact Person: Chone Number: Michael Powell Contact Person: Contact Powell Contact Powell Contact Person: Contact Powell Contact Powell Contact Person: Contact Person: Contact Person: Contact Powell Contact Powell Contact Person: Contact Powell Contact | | |
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| These are included in the cost of the hardware list otal cost for equipment replacement, upgrade, maintenance, and maintenance contracts per year: In special conditions or exemptions must be identified: Payment Details In special conditions or exemptions must be identified: Payment Details In special conditions or exemptions must be identified: Payment Details In special conditions or exemptions must be identified: Payment Details In special conditions or exemptions must be identified: Payment Details In special conditions or exemptions must be identified: Payment Details In special conditions or exemptions must be identified: Payment Details In special conditions or exemptions must be identified: Payment Details In special conditions or exemptions must be identified: Payment Details In special conditions or exemptions must be identified: Payment Details Pa | | |
| These are included in the cost of the hardware list otal cost for equipment replacement, upgrade, maintenance, and maintenance contracts per year: my special conditions or exemptions must be identified: ayment Details ayment Details account Number to Deposit Fees: mType: ontact Person: hone Number: Michael Powell 407-882-1337 ECOMMENDED APPROVAL (all approval levels must be signed) appartment Chair (Print) Chart Refity (Signature) Chart Refity Database (Signature) Chart Refity Chart Refity Chart Refity Chart Refity Cantal Maintenance contracts per year: Indicate persons Signature Chart Refity Chart | | |
| These are included in the cost of the hardware list otal cost for equipment replacement, upgrade, maintenance, and maintenance contracts per year: In special conditions or exemptions must be identified: In special condit | | |
| These are included in the cost of the hardware list otal cost for equipment replacement, upgrade, maintenance, and maintenance contracts per year: In special conditions or exemptions must be identified: In special condit | | |
| These are included in the cost of the hardware list otal cost for equipment replacement, upgrade, maintenance, and maintenance contracts per year: my special conditions or exemptions must be identified: ayment Details ayment Details account Number to Deposit Fees: mi Type: ontact Person: hone Number: Michael Powell 407-882-1337 ECOMMENDED APPROVAL (all approval levels must be signed) epartment Chair (Print) Chart Refity Chart H. Refity (Signature) Chart H. Refity Datastandards | 8 8 | |
| These are included in the cost of the hardware list otal cost for equipment replacement, upgrade, maintenance, and maintenance contracts per year: my special conditions or exemptions must be identified: ayment Details ayment Details account Number to Deposit Fees: mi Type: ontact Person: hone Number: Michael Powell 407-882-1337 ECOMMENDED APPROVAL (all approval levels must be signed) epartment Chair (Print) Chart Refity Chart H. Refity (Signature) Chart H. Refity Datastandards | | 9 |
| These are included in the cost of the hardware list otal cost for equipment replacement, upgrade, maintenance, and maintenance contracts per year: my special conditions or exemptions must be identified: ayment Details ayment Details account Number to Deposit Fees: mi Type: ontact Person: hone Number: Michael Powell 407-882-1337 ECOMMENDED APPROVAL (all approval levels must be signed) epartment Chair (Print) Chart Refity Chart H. Refity (Signature) Chart H. Refity Datastandards | | 4 10 14 16 |
| ayment Details ccount Number to Deposit Fees: mrype: contact Person: dhone Number: ECOMMENDED APPROVAL (all approval levels must be signed) epartment Chair (Print) Chans H. Refly (Signature) Chans H. Refly (Signature) Data in the maintenance contracts per year: 16400804 |) | A-1-12 |
| ayment Details count Number to Deposit Fees: 16400804 em Type: contact Person: Michael Powell 407-882-1337 ECOMMENDED APPROVAL (all approval levels must be signed) epartment Chair (Print) Cary T. Lewlers (Signature) Charlet Mark Da Charlet Mark Da Charlet Mark Da | | |
| count Number to Deposit Fees: 16400804 em Type: ontact Person: hone Number: ECOMMENDED APPROVAL (all approval levels must be signed) epartment Chair (Print) Gary T. Lewlens (Signature) clauded H. Refuly (Signature) clauded H. Refuly (Signature) clauded H. Refuly (Signature) | | |
| em Type: ontact Person: hone Number: Michael Powell 407-882-1337 EECOMMENDED APPROVAL (all approval levels must be signed) epartment Chair (Print) Gary T. Lewlens (Signature) ollege Academic (Print) Charles H. Refily (Signature) tandards | | |
| Michael Powell 407-882-1337 ECOMMENDED APPROVAL (all approval levels must be signed) Experiment Chair (Print) Gary T. Lewens (Signature) Claudes H. Refuly (Signature) Candid March Da | | |
| ECOMMENDED APPROVAL (all approval levels must be signed) epartment Chair (Print) Cary T. Lewens (Signature) college Academic (Print) Charles H. Refuly (Signature) candards | | |
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| tandards | | 23/14 |
| | / | |
| ollege Dean (Print) Mrchad Georgi SQU (Signature) | te 101 | 21/14 |
| raduate Council (Print) (Signature) Da | 1 | |
| raduate Dean (Print) (Signature) Da | | |
| pproval | | |
| rovost and Vice President for Academic Affairs: Da | te | ACCOUNTS TO ELSE |

Explanation for Attached Spreadsheets

The top of each sheet has a usage percentage for each program. Each room has a sheet that shows the breakdown of the annual cost each program has to cover. There are two sheets, HEC-102 Servers and HEC-322 Routers, that show a broken down itemization of components in their corresponding rooms. HEC-208 is listed slightly differently, as a portion of the equipment is used for research. The percentages for teaching/research were determined by Dr. LaViola.

The General spreadsheet shows items and personnel that are utilized in more than one room. The Total spreadsheet shows the information gathered from the room spreadsheets, and calculates the fees for each program. Required Fee is the minimum amount required to cover costs and the listed contingency percentage. The Requested Fee shows what we would like to charge the students. Beneath the Requested Fee you can see the difference between the required fee to maintain our current operations, and the amount we will receive. To the right of the Requested Fee calculations, you can see what our actual contingency percentage will be with the rounding in place, and you can see how much we receive for our contingency fund.

Abbreviations on the spreadsheet:

AC - Annual Cost

UGCS – Undergraduate Computer Science

GCS - Graduate Computer Science

IT - Information Technology

MSDF – Digital Forensics

10.0%

0.0%

85.0%

5.0%

0.0%

| Total | Storage Server | Door Locks TVs 36in | Camera | Tables/Desks | Chairs | Spool of RI45 Cabling | Power Line Ethernet | Patch Panels | Networking | Computer | item (|
|--|----------------|----------------------------|--------------|---------------|-------------|-----------------------|---------------------|--------------|---------------|--------------------|--------------------------|
| | 1 \$10,000.00 | 1 \$5,000.00 6 \$500.00 | 3 \$1,000.00 | 13 \$2,000.00 | 26 \$200.00 | 2 \$280.00 | 7 \$59.99 | 1 \$250.00 | 1 \$69,949.34 | 28 \$2,000.00 | Quantity Item Cost |
| total Cost \$179,019.33 | \$10,000.00 | \$5,000.00 | \$3,000.00 | \$26,000.00 | \$5,200.00 | \$560.00 | \$59.99 | \$250.00 | \$69,949.34 | \$56,000.00 | Total Cost Estimate |
| | (r | 10 3 | Сī | 10 | 10 | 1 | 5 | G | 5 | ω | ed Life |
| Total Annual Cost \$40,498.53 | \$2,000.00 | \$500.00 \$1.000.00 | \$600.00 | \$2,600.00 | \$520.00 | \$560.00 | \$12.00 | \$50.00 | \$13,989.87 | \$18,666.67 | Total Annual Cost Annual |
| Annual | \$2,000.00 | \$500.00 \$166.67 | \$200.00 | \$200.00 | \$20.00 | \$280.00 | \$12.00 | \$50.00 | \$13,989.87 | \$666.67 | Cost Per Item |
| A | | | | | | | | | | ſ | A |
| C-UGCS A(\$3,992.65 | \$200.00 | \$50.00 | \$60.00 | \$260.00 | \$52.00 | \$0.00 | \$0.00 | \$5.00 | \$1,398.99 | \$1,866.67 | C UGCS A |
| \$0.00 \$: | | \$0.00 | | | | | | \$0.00 | \$0.00 \$ | \$0.00 \$ | C-GCS A |
| GCS AC-IT AC-MSDF \$0.00 \$34,509.55 \$1,996.33 | \$1,700.00 | \$425.00 | \$510.00 | \$2,210.00 | \$442.00 | \$560.00 | \$12.00 | \$42.50 | \$11,891.39 | \$0.00 \$15,866.67 | |
| AC-MSDF A(\$1,996.33 | \$100.00 | \$25.00 | \$30.00 | \$130.00 | \$26.00 | \$0.00 | \$0.00 | \$2.50 | \$699.49 | \$933.33 | IC-MSDF AC |
| C-Other \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | -Other |

| 4 | \$69,949.34 | | | Total |
|----------|----------------|----------|------------|---|
| | | | | |
| l | 00 00 00 00 | | | |
| 7 | \$1,104.27 | 1 | \$1,104.27 | 802.11 a/g/n Ctrlr-based AP w/CleanAir; Int Ant; A Reg Domain |
| 00 | \$317.98 | 2 | \$158.99 | 2U CENTER MOUNT BRACKETS |
| 0 | \$0.00 | 2 | \$0.00 | WEB CARD |
| 0 | \$3,076.90 | 2 | \$1,538.45 | GXT3 2000VA RACK TOWER 120V |
| 9 | \$711.99 | 1 | \$711.99 | 8X5XNBD Svc^ Catalyst 4503R Series Modular Switch |
| 0 | \$2,920.00 | 1 | \$2,920.00 | Catalyst 4500E LAN Base to Enterprise Services software upgrade |
| ıω | \$9,127.93 | 1 | \$9,127.93 | Catalyst 4500 48-Port 1000Base-X (SFPs Optional) |
| 0 | \$914.00 | 2 | \$457.00 | Catalyst 4500 1300W AC Power Supply (Data and PoE) |
| 5 | \$5,257.45 | 1 | \$5,257.45 | 4503-E Chassis, One WS-X4648-RJ45V+E, Sup6L-E |
| 0 | \$456.00 | 2 | \$228.00 | SMARTNET 8X5XNBD Cat 2960S Stk 24GigE, 4xSFP LAN Base |
| 0 | \$2,808.00 | ω | \$936.00 | Catalyst 2960 24 10/100/1000, 4 T/SFP LAN Base Image |
| 0 | \$1,732.00 | 2 | \$866.00 | SMARTNET 8X5XNBD Catalyst 3750X 24 Port Data IP Base |
| 0 | \$6,900.00 | ω | \$2,300.00 | Catalyst 3750X 24 Port PoE IP Base |
| 0 | \$1,062.00 | 2 | \$531.00 | SMARTNET 8X5XNBD Catalyst 3560X 24 Port PoE IP Base |
| 10 | \$3,010.00 | 2 | \$1,505.00 | Catalyst 3560X 24 Port PoE IP Base |
| 12 | \$3,132.21 | ω | \$1,044.07 | Cisco CISCO2911/K9 2911 2900 Series Integrated Services Router |
| <u>∞</u> | \$259.98 | ω | \$86.66 | Belkin 48-Port 568A/568B CatS Patch Panel with Cable Rings |
| - 1 | | | | |
| 00 | \$1,005.88 | 1 | \$1,005.88 | Telecom Service Fee 5% |
| 0 | \$5,915.00 | 13 | \$455.00 | HWIC-2T |
| 0 | \$3,380.00 | 13 | \$260.00 | HWIC-1T |
| 0 | \$0.00 | 13 | \$0.00 | 256MB Compcat Flash for Cisco ISR |
| 0 | \$0.00 | 13 | \$0.00 | 512MB DRAM for Cisco 2901-2921 ISR |
| 0 | \$0.00 | 13 | \$0.00 | Cisco Config Pro Express on Router Flash |
| 0 | \$0.00 | 40 | \$0.00 | Blank faceplate for HWIC slot on Cisco ISR |
| 0 | \$0.00 | 13 | \$0.00 | IP Base License for Cisco 2901-2951 |
| 0 | \$0.00 | 13 | \$0.00 | AC Power CordC13 NEMA 5-15P 2.1m |
| 0 | \$0.00 | 13 | \$0.00 | Cisco 2901 AC Power Supply |
| 0 | \$0.00 | 13 | \$0.00 | Cisco 2901-2921 IOS Universal |
| 5 | 13 \$16,857.75 | 13 | \$1,296.75 | Cisco 2901 w/2 GE 4 EHWIC 2DSP IP base |
| | Total | очанику |) tso | ltem (|

http://www.amazon.com/clisco-USCO2911.49-Integrated-services/dp/B0020ANILU
http://www.amazon.com/clisco-USCO2911.49-Integrated-services/dp/B0025CUCLS
http://www.amazon.com/clisco-USCO2911.49-Integrated-services/dp/B0025CUCLS
http://www.amazon.com/SIAGRTNET-8X5X4-3560-1000T-CON-SNITE-3560GTS/dp/B00A8BJQEW/ref=sr_1
http://www.amazon.com/SIAGRTNET-8X5X4-3560-1000T-CON-SNITE-3560GTS/dp/B00A9APEEK/ref=sr_1
http://www.amazon.com/SIAGRTNET-24X7X4-Catalyst-3750-CON-SNITE-375048PE/dp/B003OAPEEK/ref=sr_1
http://www.amazon.com/Cisto-WS-C3750X-24P-S-Catalyst-3750-CON-SNITE-375048PE/dp/B003CXAWW/ref=sr_1
http://www.amazon.com/Cisto-CON-S2P-356048TS-TAKEOVER-ONLY-SNARTNET/dp/B003DMJWCW/ref=sr_1
http://www.amazon.com/Cisto-CON-S2P-356048TS-TAKEOVER-ONLY-SNARTNET/dp/B00005ASW8W/r
http://www.amazon.com/Cisto-PWR-C45-1300ACV-CATALYST-300W-POWER/dp/B000071024/ref=sr_
http://www.amazon.com/Cisto-CYWR-C45-1300ACV-CATALYST-30ini-GBIC/dp/B0005DMJWCW/ref=sr_
http://www.amazon.com/Cisto-CVWR-C45-130ACV-CATALYST-3ini-GBIC/dp/B0005DFTQK/ref=sr_
http://www.amazon.com/Cisto-CVWR-C45-130ACV-CATALYST-3ini-GBIC/dp/B005DFTQK/ref=sr_
http://www.amazon.com/Cisto-CVWR-C45-130ACV-CATALYST-3ini-GBIC/dp/B005DFTQK/ref=sr_
http://www.amazon.com/Cisto-CV-C4500X-156-IP-E-S-IOS-Enterprise-Services/dp/B0005DMJ/CF-Series
http://www.amazon.com/Cisto-CV-C4500X-156-IP-E-S-IOS-Enterprise-Services/dp/B0005DMJ/CF-Series
http://www.amazon.com/Cisto-CV-C4500X-156-IP-E-S-IOS-Enterprise-Services/dp/B0005DMJ/CF-Series
http://www.amazon.com/Cisto-CV-C4500X-156-IP-E-S-IOS-Enterprise-Services/dp/B0005WKX346/refhttp://www.amazon.com/Cisto-CV-C4500X-156-IP-E-S-IOS-Enterprise-Services/dp/B005WKX346/ref-

- sr_1_fkmr1_1?s=electronics&ie=UTF8&qid=1380642291&sr=1.1-fkmr1&keywords=SMARTNET+Catalyst+3560X+24+Port
 1/s=electronics&ie=UTF8&qid=1380642325&sr=1.2 keywords=Catalyst+3750X+24+Port+PBase
 ef=sr_1_fkmr1_1?s=electronics&ie=UTF8&qid=1380642478sr=1.1-fkmr1&keywords=Catalyst+3750X+24+Port+Data+IP+Base
 1_1/s=electronics&ie=UTF8&qid=1380642418sr=1.2 keywords=Catalyst+2600-24
 1_1/s=electronics&ie=UTF8&qid=1380642830&sr=1.2 keywords=Catalyst+2600-24
 2=f=sr_1_fkmr1_1?s=electronics&ie=UTF8&qid=1380642830&sr=1.2 keywords=SMARTNET+Cat+29605+24
 1_1/s=electronics&ie=UTF8&qid=1380642830&sr=1.2 keywords=4503-f+Chassis%2C+One+W5-X4648-R145V%2BE%2C+Sup6L1_1/s=electronics&ie=UTF8&qid=1380642830&sr=1.2 keywords=Catalyst+4500+1300M+AC+Power-Supply+%28Data+and+PoE%29
 1_4/s=electronics&ie=UTF8&qid=1380642830&sr=1.4 keywords=Catalyst+4500+48-Port+1000Base-X
 1_fkmr0_1?s=electronics&ie=UTF8&qid=1380642954&sr=1.1-fkmr0&keywords=Catalyst+4500+48-Port+1000Base-X
 1_fkmr0_1?s=electronics&ie=UTF8&qid=1380642954&sr=1.1-fkmr0&keywords=Catalyst+4500+1300M+AC+Power-Supply+%28Data+and+PoE%29
 3_5lot-chas/252938_aspx
- sr_1_1?s=electronics&ie=UTF8&qid=1380649822&sr=1-1&keywords=GXT3+2000VA+RACK+TOWER+120V
- ~2U/25S9318.aspx?enkwrd=ALLPROD%3a%7c2U%2520Center%2520mount%2520racks%7cAll%20Product%20Catalog tronics&ie=UTF8&qid=1380649937&sr=1-7&keywords=802.11+a%2Fg%2Fn+Ctrlr-based+AP+w%2FCleanAir%3B+Int+Ant%3B+A+Reg+Domain

| Total | Title Pay Systems Progammer \$50,499.97 | Server | FTK License | Lab Monitor | Systems Programmer | Item Quantity |
|---|---|---|---|---|--|---------------------------------------|
| Total Cost \$98,189.46 | Fringe % Total 97 27.90% \$64,589.46 | 1 \$13,000.00 \$13,000.00 | 1 \$5,000.00 \$5,000.00 | 1 \$15,600.00 \$15,600.00 | 1 \$64,589.46 \$64,589.46 | Item Cost Total Cost Estima |
| JUGGS GGS IT MSDF Other Average Usage 36.3% 17.5% 7.5% 38.8% 0.0% | | 5 20.0% 20.0% 10.0% 50.0% 0.0% | 1 0.0% 0.0% 0.0% 100.0% 0.0% | 1 50.0% 50.0% 0.0% 0.0% 0.0% | 1 75.0% 0.0% 20.0% 5.0% 0.0% | ted Life UGCS GCS IT MSDF Other |
| Total Annual Cost \$87,789.46 | | \$2,600.00 | \$5,000.00 | \$15,600.00 | \$64,589.46 | Total Annual Cost Annual Cost |
| AC-UGCS AC-GCS AC-IT AC-MSDF AC-Other \$556,762.10 \$8,320.00 \$13,177.89 \$9,529.47 \$0.00 | | \$2,600.00 \$520.00 \$520.00 \$260.00 \$1,300.00 \$0.00 | \$5,000.00 \$0.00 \$0.00 \$0.00 \$5,000.00 \$0.00 | \$15,600.00 \$7,800.00 \$7,800.00 \$0.00 \$0.00 | \$64,589.46 \$48,442.10 \$0.00 \$12,917.89 \$3,229.47 \$0.00 | AC-UGCS AC-GCS AC-IT AC-MSDF AC-Other |

| Room | Total Cost | Total Annual Cost Cor | ntingency |
|----------|--------------|-----------------------|------------|
| ENG1-187 | \$88,600.00 | \$19,462.86 | \$973.14 |
| ENG1-188 | \$88,600.00 | \$19,462.86 | \$973.14 |
| HEC-102 | \$126,256.18 | \$23,878.38 | \$1,193.92 |
| HEC-208 | \$195,300.00 | \$11,078.40 | \$553.92 |
| HEC-308 | \$92,800.00 | \$19,982.86 | \$999.14 |
| HEC-322 | \$179,019.33 | \$40,498.53 | \$2,024.93 |
| General | \$98,189.46 | \$87,789.46 | \$4,389.47 |

| C-บ ด เว | AC-GCS | AC-IT | AC-MSDF A | C-Other |
|---|------------|--------------------|------------|---------|
| \$15,570.29 | \$0.00 | \$0.00 \$3,892.57 | \$0.00 | \$0.00 |
| \$15,570.29 | \$0.00 | \$0.00 \$3,892.57 | \$0.00 | \$0.00 |
| \$23,878.38 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| \$5,539.20 \$5,539.20 | \$5,539.20 | \$0.00 | \$0.00 | \$0.00 |
| \$14,987.14 | \$0.00 | \$0.00 \$4,995.71 | \$0.00 | \$0.00 |
| \$3,992.65 | \$0.00 | \$0.00 \$34,509.55 | \$1,996.33 | \$0.00 |
| \$56,762.10 \$8,320.00 \$13,177.89 \$9,529.47 | \$8,320.00 | \$13,177.89 | \$9,529.47 | \$0.00 |

| S | AC-IT | AC-MSDF | AC-Other |
|--------|----------------------|------------|----------|
| \$0.00 | \$3,892.57 | \$0.00 | \$0.00 |
| \$0.00 | \$3,892.57 | \$0.00 | \$0.00 |
| \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 39.20 | \$0.00 | \$0.00 | \$0.00 |
| \$0.00 | \$4,995.71 | \$0.00 | \$0.00 |
| \$0.00 | \$0.00 \$34,509.55 | \$1,996.33 | \$0.00 |
| 00 00 | 20 00 \$13 177 89 | \$9 529 47 | \$0.00 |

5.00%

| ራ | AC-GCS | AC-IT | AC-MSDF | AC-Other |
|--------|-------------------------------|--------------------|------------|----------|
| 570.29 | \$0.00 | \$3,892.57 | \$0.00 | \$0.00 |
| 570.29 | \$0.00 | \$3,892.57 | \$0.00 | \$0.00 |
| 878.38 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 539.20 | \$5,539.20 | \$0.00 | \$0.00 | \$0.00 |
| 987.14 | \$0.00 | \$4,995.71 | \$0.00 | \$0.00 |
| 992.65 | \$0.00 | \$0.00 \$34,509.55 | \$1,996.33 | \$0.00 |
| 762.10 | 762.10 \$8,320.00 \$13,177.89 | \$13,177.89 | \$9,529.47 | \$0.00 |
| | | | | |

| \$0.00 | \$576.29 | \$3,023.42 | \$692.96 | \$6,815.00 |
|----------|-------------|-------------|-------------|--|
| \$0.00 | \$12,102.09 | \$63,491.72 | \$14,552.16 | \$143,115.05 \$14,552.16 \$63,491.72 \$12,102.09 |
| \$0.00 | \$11,525.80 | \$60,468.30 | \$13,859.20 | \$136,300.05 \$13,859.20 \$60,468.30 \$11,525.80 |
| AC-Other | AC-MSDF | AC-IT | AC-GCS | AC-UGCS |
| | | | | |

\$868,764.97

\$222,153.35

\$11,107.67

| | UGCS-Full | UGCS-Part | GCS-Full | GCS-Part | IT-Full | IT-Part | VISDF-Full | VISDF-Part |
|-------------|--------------|-------------|------------|------------|---|-----------------|------------|------------|
| quired Fee | \$57.53 | \$28.77 | \$25.20 | 0 \$12.60 | \$47.58 | \$47.58 \$23.79 | \$81.77 | \$40.89 |
| otal Fee | \$103,905.84 | \$39,209.21 | \$9,399.06 | \$5,153.10 | \$9,399.06 \$5,153.10 \$40,773.62 \$22,718.09 \$2,943.75 \$9,158.34 | \$22,718.09 | \$2,943.75 | \$9,158.34 |
| er Semester | \$34,635.28 | \$13,069.74 | \$3,133.02 | \$1,717.70 | \$3,133.02 \$1,717.70 \$13,591.21 \$7,572.70 \$981.25 \$3,052.78 | \$7,572.70 | \$981.25 | \$3,052.78 |
| | | | | | | | | |

| ifference Required/Red | er Semester | otal Gained | equested Fee | | | |
|------------------------|------------------------|---|--------------|-----------|---|--|
| quest | | | | | 1 | |
| -\$963.84 | \$34,314.00 | \$102,942.00 | \$57.00 | UGCS-Full | | |
| -\$1,045.21 | \$12,721.33 | \$38,164.00 | \$28.00 | UGCS-Part | | |
| -\$74.06 | | \$9,325.00 | \$25.00 | GCS-Full | | |
| -\$74.06 -\$245.10 | \$3,108.33 \$1,636.00 | \$4,908.00 | \$12.00 | GCS-Part | | |
| -\$494.62 | \$13,426.33 \$7,321.67 | \$9,325.00 \$4,908.00 \$40,279.00 \$21,965.00 | \$47.00 | T-Full | | |
| -\$753.09 | \$7,321.67 | \$21,965.00 | \$23.00 | IT-Part | | |
| -\$27.75 | \$972.00 | \$2,916.00 \$8,960.00 | \$81.00 | WSDF-Full | | |
| -\$198.34 | \$972.00 \$2,986.67 | \$8,960.00 | \$40.00 | WSDF-Part | | |

| (SDF-Full | \$981.25 | \$2,943.75 | \$81.77 | SDF-Full | 12 | 36 | 16 | 13 | 7 | (SDF-Full | \$3,023.42 | 2000 | 63,491.72 |
|-----------|------------|------------|---------|-----------|----|-----|-----|----|----|-----------|------------|------|-------------|
| MSDF-Part | \$3,052.78 | \$9,158.34 | \$40.89 | MSDF-Part | 75 | 224 | 100 | 39 | 85 | MSDF-Part | \$5/6.29 | 2 | \$12,102.09 |
| | | | | | | | | | | | \$0.00 | | \$0.00 |
| | | | | | | | | | | | | | |

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| Amo | | ency |
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| | | al C |

\$7,305.65



Graduate Equipment Fee Request Form

Forward to your college office

This form is to be used for requests to add, change, or delete equipment fee requests for a program. All requests for the next catalog must be submitted by October 24 for the November agenda deadline of the Graduate Council Committee (Dean Ross Hinkle).

Request routing: 1) Department Chair to College Dean's Office; 2) Dean's Office; 3) Graduate Council Curriculum Committee; 4) A list of approved requests will be forwarded to the provost for final approval. 5) University Board of Trustees — information only.

Under the rules of the Board of Trustees for the University of Central Florida, equipment fees may be assessed for the use and replacement of equipment. Fees take effect in the fall semester of each year. Departments must maintain detailed accounting of all expenditures and report them to the Dean of the Graduate College on July 1 of each year. Equipment Fee maximum per semester: \$90.00 Full-time; \$45.00 Part-time.

| | College: Engr. al | | r Science |
|---|---------------------|-----------|-----------|
| Equipment Fees: | | | |
| Fall graduate student enrollment: 207 | -ull-time 152 | Part-time | 55 |
| | -ull-time \$90 | Part-time | \$45 |
| Provide detailed Justification for the Request: | | | |
| (use additional sheet if necessary) See attachment for affected courses. | | | |
| dec attachment for affected courses. | | | |
| | | | |
| | | | |
| | | | |
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| | | | |
| | | | |
| Provide detailed cost information about the expenses for which the fee (use additional sheet if necessary) | e is to be assessed | d. | |
| Equipment | | Cost | Lifetime |
| See attachment for itemized details | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | Total of Costs: | | |

| Maintenance | | Cost | Lifetime |
|--|---|----------------|----------------------|
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| | | | |
| | Total of Costs: | | |
| | | | |
| aintenance plans | and maintenance cost/year: | | |
| otal cost for equip | ment replacement, upgrade, maintenance, and maintenance contracts per year: | | |
| | | | |
| Try Special Condition | ons or exemptions must be identified: | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| ayment Details | | | |
| | 1622804 | | |
| ccount Number to | 1622804 Deposit Fees: | | |
| em Type:T | 1622804 Deposit Fees: | | |
| em Type:Tontact Person: | 1622804 Deposit Fees: | | |
| em Type:Tontact Person:4(| 1622804 Deposit Fees: | | |
| em Type: ontact Person: 40 hone Number: | heresa Collins 07-823-2637 | | |
| em Type: ontact Person: 40 hone Number: | 1622804 Deposit Fees: Theresa Collins D7-823-2637 DAPPROVAL (all approval levels must be signed) | | |
| em Type: ontact Person: hone Number: | Deposit Fees: heresa Collins 07-823-2637 DAPPROVAL (all approval levels must be signed) (Print) ZHIHUA DU (Signature) | ≥ Date | 10/22/20 |
| ccount Number to em Type: Tontact Person: 4(hone Number: ECOMMENDED | Deposit Fees: heresa Collins 07-823-2637 DAPPROVAL (all approval levels must be signed) (Print) ZHIHUA DU (Signature) | Date Date | 10/22/20 |
| em Type: Tontact Person: hone Number: ECOMMENDED epartment Chair ollege Academic | Deposit Fees: Theresa Collins D7-823-2637 D APPROVAL (all approval levels must be signed) (Print) ZHIHUA DM (Signature) (Print) Charles H. Restly (Signature) | | 10/22/20 |
| em Type: Tontact Person: 4(hone Number: ECOMMENDED epartment Chair ollege Academic | Deposit Fees: Theresa Collins D7-823-2637 D APPROVAL (all approval levels must be signed) (Print) ZHIHUA QU (Print) Charles H. Restly (Signature) Charles H. Rully | | 10/22/20 10/23/14 |
| ccount Number to em Type: Tontact Person: 40 hone Number: ECOMMENDED epartment Chair ollege Academic tandards ollege Dean | Deposit Fees: Theresa Collins D7-823-2637 D APPROVAL (all approval levels must be signed) (Print) ZHIHUA DM (Signature) (Print) Charles H. Restly (Signature) | _ Date . | 10/22/20 10/23/14 |
| em Type: Tontact Person: chone Number: ECOMMENDED epartment Chair college Academic andards college Dean raduate Council | Deposit Fees: Theresa Collins D7-823-2637 D APPROVAL (all approval levels must be signed) (Print) ZHIHUA DM (Signature) (Print) Charles H. Restly (Signature) (Print) Michael Georgia parks (Signature) | Date Date | 10/22/20 |
| em Type: m Type: pontact Person: donne Number: ECOMMENDED epartment Chair college Academic andards college Dean raduate Council raduate Dean | 1622804 Deposit Fees: Theresa Collins 07-823-2637 DAPPROVAL (all approval levels must be signed) (Print) ZHIHUA DU (Signature) (Print) Charles H. Restly (Signature) (Print) Michael Georgia parks (Signature) (Print) Michael Georgia parks (Signature) | Date Date | 10/22/20 10/23/14 |
| em Type: Tontact Person: 4(hone Number: EECOMMENDED epartment Chair ollege Academic tandards ollege Dean raduate Council raduate Dean | 1622804 Deposit Fees: Theresa Collins 07-823-2637 DAPPROVAL (all approval levels must be signed) (Print) ZHIHUA DU (Signature) (Print) Charles H. Restly (Signature) (Print) Michael Georgia parks (Signature) (Print) Michael Georgia parks (Signature) | Date Date Date | 10/22/20 10/23/14 |

Laboratory Equipment Cost ReportDepartment of Electrical Engineering and Computer Science

Revision Date: Septermber 9, 2014

| Room | An | nualized Cost | Cost | EE BS | CpE BS | EE Grad | CpE Grad |
|-----------------|----|---------------|--------------------|-------|--------|---------|----------|
| ENGR-120 | \$ | 2,310.19 | \$ 47,734.00 | 0% | 0% | 100% | 0% |
| ENGR-163 | \$ | 5,846.81 | \$ 170,824.00 | 0% | 0% | 100% | 0% |
| ENGR-257 | \$ | 41,158.08 | \$ 255,559.50 | 53% | 40% | 2% | 5% |
| ENGR-274 | \$ | 23,525.73 | \$ 83,429.00 | 39% | 31% | 15% | 15% |
| ENGR-456 | \$ | 57,595.41 | \$ 264,078.20 | 55% | 45% | 0% | 0% |
| ENGR-461 | \$ | 25,129.48 | \$ 327,368.00 | 30% | 0% | 70% | 0% |
| ENGR-471 | \$ | 14,299.06 | \$ 140,507.00 | 55% | 45% | 0% | 0% |
| ENGR-474 | \$ | 28,090.08 | \$ 258,219.59 | 55% | 45% | 0% | 0% |
| HEC-302 | \$ | 1,691.51 | \$ 261,415.00 | 0% | 0% | 100% | 0% |
| HEC-338 | \$ | 13,173.00 | \$ 53,092.00 | 50% | 40% | 5% | 5% |
| HEC-406 | \$ | 6,998.79 | \$ 271,240.00 | 0% | 0% | 100% | 0% |
| Senior Engineer | \$ | 80,000.00 | \$ 80,000.00 | 45% | 40% | 15% | 0% |
| Total | \$ | 299,818.13 | \$ 2,213,466.29 | • | - | | |

BSEE Only

| Room | Anı | nualized Cost | %UG | Fee Cost |
|-----------------|-----|---------------|------|------------------|
| ENGR-257 | \$ | 41,158.08 | 55% | \$ 22,636.94 |
| ENGR-274 | \$ | 23,525.73 | 39% | \$ 9,175.04 |
| ENGR-456 | \$ | 57,595.41 | 55% | \$ 31,677.48 |
| ENGR-461 | \$ | 25,129.48 | 30% | \$ 7,538.84 |
| ENGR-471 | \$ | 14,299.06 | 55% | \$ 7,864.48 |
| ENGR-474 | \$ | 28,090.08 | 55% | \$ 15,449.55 |
| HEC-338 | \$ | 13,173.00 | 50% | \$ 6,586.50 |
| HEC-406 | \$ | 6,998.79 | 100% | \$ 6,998.79 |
| Senior Engineer | \$ | 80,000.00 | 45% | \$ 36,000.00 |
| Total | \$ | 289,969.63 | , | \$ 143,927.61 |

| Status | AY Total | Fall 2014 | Summer 2014 | Spring 2014 |
|-----------|----------|-----------|-------------|-------------|
| Full Time | 1010 | 504 | 10 | 496 |
| Part Time | 1027 | 290 | 457 | 280 |
| Total | 2037 | 794 | 467 | 776 |

| FT EQ Fee | \$ | 94 | Fee=Fee Cost / (FT + PT/2) |
|-----------|----|----|----------------------------|
| PT EQ Fee | 8 | 47 | |

BCpEE Only

| Room | Anı | nualized Cost | %UG | Fee Cost |
|-----------------|-----|---------------|-----|------------------|
| ENGR-257 | \$ | 41,158.08 | 45% | \$ 18,521.13 |
| ENGR-274 | \$ | 23,525.73 | 31% | \$ 7,292.98 |
| ENGR-456 | \$ | 57,595.41 | 45% | \$ 25,917.93 |
| ENGR-471 | \$ | 14,299.06 | 45% | \$ 6,434.58 |
| ENGR-474 | \$ | 28,090.08 | 45% | \$ 12,640.54 |
| HEC-338 | \$ | 13,173.00 | 40% | \$ 5,269.20 |
| Senior Engineer | \$ | 80,000.00 | 40% | \$ 32,000.00 |
| Total | \$ | 257,841.36 | | \$ 108,076.36 |

| Status | AY Total | Fall 2014 | Summer 2014 | Spring 2014 |
|-----------|----------|-----------|-------------|-------------|
| Full Time | 908 | 496 | 11 | 401 |
| Part Time | 771 | 194 | 392 | 185 |
| Total | 1679 | 690 | 403 | 586 |

| | FT EQ Fee | \$ | 84 | Fee=Fee Cost / (FT + PT/2) |
|---|-----------|----|----|----------------------------|
| 1 | PT EQ Fee | S | 42 | |

Graduate EE Only

| Room | Anı | nualized Cost | %G | Fee Cost |
|-----------------|-----|---------------|------|-----------------|
| ENGR-120 | \$ | 2,310.19 | 100% | \$ 2,310.19 |
| ENGR-163 | \$ | 5,846.81 | 100% | \$ 5,846.81 |
| ENGR-274 | \$ | 23,525.73 | 15% | \$ 3,528.86 |
| ENGR-461 | \$ | 25,129.48 | 70% | \$ 17,590.64 |
| ENGR-302 | \$ | 1,691.51 | 100% | \$ 1,691.51 |
| HEC-338 | \$ | 13,173.00 | 5% | \$ 658.65 |
| HEC-406 | \$ | 6,998.79 | 100% | \$ 6,998.79 |
| Senior Engineer | \$ | 80,000.00 | 15% | \$ 12,000.00 |
| Total | \$ | 158,675.51 | | \$ 50,625.44 |

| Status | AY Total | Fall 2014 | Summer 2014 | Spring 2014 |
|-----------|----------|----------------|-------------|-------------|
| Full Time | 337 | 152 | 56 | 129 |
| Part Time | 135 | 55 | 30 | 50 |
| Total | 472 | 207 | 86 | 179 |
| FT EQ Fee | \$ 125 | Fee=Fee Cost / | (FT + PT/2) | |
| PT EQ Fee | \$ 63 | | | |

Graduate CpE Only

| Room | Anı | nualized Cost | %G | ee Cost |
|-----------------|-----|---------------|-----|----------------|
| ENGR-274 | \$ | 23,525.73 | 15% | \$ 3,528.86 |
| HEC-338 | \$ | 13,173.00 | 5% | \$ 658.65 |
| Senior Engineer | \$ | 80,000.00 | 0% | \$ - |
| Total | \$ | 116,698.73 | | \$ 4,187.51 |

| Status | AY Total | Fall 2013 | Summer 2013 | Spring 2013 | |
|-----------|----------|-----------|-------------|-------------|--|
| Full Time | 106 | 55 | 10 | 41 | |
| Part Time | 82 | 30 | 19 | 33 | |
| Total | 188 | 85 | 29 | 74 | |

| FT EQ Fee | \$ 28 | Fee=Fee Cost / (FT + PT/2) |
|-----------|----------|----------------------------|
| PT EQ Fee | \$ 14 | |

ENGR-120 Probe Station Laboratory

EEE-5332C Thin Film Technology EEE-5356C Fabrication of Solid-State Devices

| ltem | I | Annualized Cost | Cost | Class Use | Purchased | Replace |
|---|----|-----------------|-----------------|-----------|-----------|---------|
| 2 Probe Stations | \$ | 216.56 | \$ 15,400.00 | 90% | 1986 | 2050 |
| 4 Probe Tips, Lucus Signatone SE-20TB | \$ | 32.00 | \$ 160.00 | 100% | 2010 | 2015 |
| 3 Micropositioners, Lucus Signatone S-725SRM | \$ | 176.70 | \$ 1,767.00 | 100% | 2010 | 2020 |
| 3 Micropositioners, Lucus Signatone S-725SLM | \$ | 176.70 | \$ 1,767.00 | 100% | 2010 | 2020 |
| 8 Probe Tip Holders, Lucus Signatone U-S-1-CB | \$ | 64.00 | \$ 640.00 | 100% | 2010 | 2020 |
| 2 Curve Tracers | \$ | 207.69 | \$ 3,000.00 | 90% | 2002 | 2015 |
| C-V Plotter, HP 4280A | \$ | 789.47 | \$ 15,000.00 | 100% | 2001 | 2020 |
| Monochromatic Profilometer, Spectroline | \$ | 147.06 | \$ 5,000.00 | 100% | 1986 | 2020 |
| Electronic Lock | \$ | 500.00 | \$ 5,000.00 | 100% | 2013 | 2023 |
| Total | \$ | 2,310.19 | \$ 47,734.00 | | | |

ENGR-163 Microelectronics Laboratory

EEE-5332C Thin Film Technology EEE-5356C Fabrication of Solid-State Devices

Revision Date: September 9, 2014

Some equipment items are used for both instruction and research. The percentage of instructional use is shown.

| Item | Annualized Cost | Cost | Class Use | Purchased | Replace |
|---------------------------------|-----------------|---------------|-----------|-----------|---------|
| Edwards Diffusion Evaporator | \$ 35.71 | \$ 1,500.00 | 100% | 1983 | 2025 |
| Bruce Oxidation Furnace | \$ 109.29 | \$ 5,100.00 | 90% | 1983 | 2025 |
| Bruce Diffusion Furnaces | \$ 218.57 | \$ 10,200.00 | 90% | 1983 | 2025 |
| Furnace Maintenance | \$ 250.00 | \$ 250.00 | 90% | 1983 | 2025 |
| Headway Resist Spinner | \$ 177.75 | \$ 6,715.00 | 90% | 1986 | 2020 |
| 3 Resist Bake Ovens | \$ 103.85 | \$ 4,500.00 | 90% | 1986 | 2025 |
| Karlsuss Mask Aligner | \$ 669.23 | \$ 29,000.00 | 90% | 1986 | 2025 |
| 3-Chamber Cryo system | \$ 42.19 | \$ 3,000.00 | 90% | 1986 | 2050 |
| 3-Chamber Cryo system Upgrades | \$ 900.00 | \$ 2,000.00 | 90% | 2013 | 2015 |
| Jandel 4pt Probe | \$ 225.00 | \$ 5,000.00 | 90% | 2005 | 2025 |
| 4 Vacuum Pumps | \$ 507.78 | \$ 11,284.00 | 90% | 2010 | 2030 |
| Profilometer, Bruker Dektek 150 | \$ 1,119.94 | \$ 49,775.00 | 90% | 2010 | 2050 |
| Electronic Lock | \$ 500.00 | \$ 5,000.00 | 100% | 2013 | 2023 |
| Veccoprofile meter, Wyko NT3300 | \$ 654.76 | \$ 27,500.00 | 100% | 1983 | 2025 |
| 2 - Microscope, Unitron | \$ 85.11 | \$ 4,000.00 | 100% | 1983 | 2030 |
| 4-Point probe, Magnetron 3-700 | \$ 135.14 | \$ 5,000.00 | 100% | 1983 | 2020 |
| Laptop Computer | \$ 62.50 | \$ 500.00 | 100% | 2012 | 2020 |
| Refrigerator | \$ 50.00 | \$ 500.00 | 100% | 2010 | 2020 |
| Total | \$ 5,846.81 | \$ 170,824.00 | | | |

ENGR-257 Computing Systems Laboratory

EEE 3342 Introduction to Digital Circuits & Systems EEL 3801C Computer Organization EEL 4742 Embedded Systems EEE 5722C FPGA Design EEL 4612C Robust Controls

| ltem | Ann | ualized Cost | Cost | Purchased | Replace |
|-------------------------------------|-----|--------------|------------------|-----------|---|
| 41 Laboratory Computers | \$ | 6,833.33 | \$ 41,000.00 | 2009 | 2015 |
| 20 Digital Trainer, Global PB505 | \$ | 400.00 | \$ 10,000.00 | 2000 | 2025 |
| 42 Lab Stools | \$ | 900.00 | \$ 12,600.00 | 2000 | 2014 |
| 24 Logic Analyzers for Workstations | \$ | 2,403.50 | \$ 4,807.00 | 2014 | 2016 |
| 1 Textronics Logic Analyzer | \$ | 1,982.20 | \$ 19,822.00 | 2014 | 2024 |
| 2 Large Screen Monitors | \$ | 1,666.67 | \$ 10,000.00 | 2014 | 2020 |
| 20 Zedboards | \$ | 1,395.63 | \$ 5,582.50 | 2014 | 2018 |
| 15 Kintex-7 Boards | \$ | 6,356.25 | \$ 25,425.00 | 2014 | 2018 |
| 12 Lab Benches | \$ | 349.17 | \$ 10,475.00 | 2010 | 2040 |
| 2 Electronic Lock | \$ | 1,000.00 | \$ 10,000.00 | 2013 | 2023 |
| 2 Security Cameras | \$ | 200.00 | \$ 2,000.00 | 2011 | 2021 |
| 8 Quanser Linear Controls Stations | \$ | 16,944.67 | \$ 101,668.00 | 2013 | 2019 |
| 10 MatLab License | \$ | 726.67 | \$ 2,180.00 | 2012 | 2015 |
| Total | \$ | 41,158.08 | \$ 255,559.50 | | *************************************** |

ENGR-274 Evaluation, Proficiency and Test Center

EEE 3342C Digital Systems

EEL 3801C Computer Organization

EEL 3004C Electrical Network

EEL 3123C Networks and Systems

| Item | Ann | ualized Cost | Cost | Purchased | Replace |
|---|-----|--------------|-----------------|-------------|---------|
| 18 Computer Tables | \$ | 1,119.60 | \$ 11,196.00 | 2012 | 2022 |
| 26 Dell 990 PC's | \$ | 5,200.00 | \$ 26,000.00 | 2011 | 2016 |
| Lab Sofa | \$ | 101.30 | \$ 1,013.00 | 2012 | 2022 |
| 45 Lab Chairs | \$ | 1,437.30 | \$ 14,373.00 | 2012 | 2022 |
| Small Lab Table | \$ | 39.50 | \$ 395.00 | 2012 | 2022 |
| 2 Activity Tables | \$ | 87.70 | \$ 877.00 | 2012 | 2022 |
| 2 32" Monitors | \$ | 92.00 | \$ 920.00 | 2012 | 2022 |
| 3 Marker Boards | \$ | 3,740.00 | \$ 780.00 | 2012 | 2040 |
| National Instruments EDA Software Suite | \$ | 5,000.00 | \$ 5,000.00 | annual cost | |
| 3 Electronic Locks | \$ | 1,500.00 | \$ 15,000.00 | 2013 | 2023 |
| MatLab Simulink 25 seat Network License | \$ | 3,875.00 | \$ 3,875.00 | annual cost | |
| 4 Security Cameras | \$ | 1,333.33 | \$ 4,000.00 | 2011 | 2014 |
| Total | \$ | 23,525.73 | \$ 83,429.00 | | |

HEC-302 Medical Robotics Laboratory

EEL 5690. Introduction to Medical Robotics and Tele-Operation

Revision Date: Septermber 9, 2014

| Item | Annı | ialized Cost | Cost | Class Use | Purchased | Replace |
|--|------|--------------|------------------|-----------|-----------|---------|
| Phantom Omni (2) | \$ | 735.83 | \$ 4,415.00 | 100% | 2013 | 2019 |
| Medical Surgical Robot, University of Washington, Raven III | \$ | 675.68 | \$ 250,000.00 | 10% | 2013 | 2050 |
| 7 laboratory computers | \$ | 280.00 | \$ 7,000.00 | 20% | 2013 | 2018 |
| Total | \$ | 1,691.51 | \$ 261,415.00 | 7 | | |

HEC-338 ECE Smart Laboratory

ECE Undergraduate Computer Laboratory for Course Support for all ECE

Revision Date: October 2, 2013

| ltem | Anr | nualized Cost | Cost | Purchased | Replace |
|---|-----|---------------|-----------------|-------------|---------|
| 22 Dell 990 PC's | \$ | 1,666.67 | \$ 10,000.00 | 2009 | 2015 |
| 7 Computer Tables | \$ | 500.00 | \$ 5,000.00 | 2004 | 2014 |
| 4 Lab Benches | \$ | 116.40 | \$ 3,492.00 | 2011 | 2041 |
| 32 Lab Stools | \$ | 685.71 | \$ 9,600.00 | 2000 | 2014 |
| Comsol Multi-Physic | \$ | 4.22 | \$ 8,500.00 | | 2014 |
| National Instruments EDA Software Suite | \$ | 5,000.00 | \$ 5,000.00 | annual cost | 12.757 |
| Cadence Software | \$ | 4,500.00 | \$ 4,500.00 | annual cost | |
| Electronic Lock | \$ | 500.00 | \$ 5,000.00 | 2012 | 2022 |
| 2 Security Cameras | \$ | 200.00 | \$ 2,000.00 | 2011 | 2021 |
| Total | \$ | 13,173.00 | \$ 53,092.00 | | |

HEC-406 Characterization Laboratory

EEE4463C MEMS DEVICES AND APPLICATIONS

Revision Date: September 9, 2014

| ltem | 18/19 | Annualized Cost | Cost | Class Use | Purchased | Replace |
|--|-------|-----------------|------------------|-----------|-----------|---------|
| Probing station, Micromanipulator 6000 | \$ | 363.64 | \$ 40,000.00 | 50% | 1995 | 2050 |
| 2 - Parameter Analyzer, HP 4145B | \$ | 1,188.33 | \$ 71,300.00 | 50% | 1995 | 2025 |
| C-V Plotter, HP 4280A | \$ | 250.00 | \$ 15,000.00 | 50% | 1995 | 2025 |
| LCR Meter, HP 4275A | \$ | 264.08 | \$ 15,845.00 | 50% | 1995 | 2025 |
| DC Voltage Source, HP 4140B | \$ | 16.67 | \$ 1,000.00 | 50% | 1995 | 2025 |
| GPIB-USB, National Instrument | \$ | 8.33 | \$ 500.00 | 50% | 1995 | 2025 |
| Low Temperature Measuring setup, | \$ | 1,111.11 | \$ 40,000.00 | 50% | 2007 | 2025 |
| Water Circulator - Poly Science | \$ | 83.33 | \$ 2,000.00 | 50% | 2008 | 2020 |
| Mechanical Vacuum Pump | \$ | 20.00 | \$ 1,000.00 | 50% | 2000 | 2025 |
| Multimeter, HP 34401A | \$ | 44.92 | \$ 1,123.00 | 100% | 1995 | 2020 |
| Universal Test Center, TENMA 72-5085 | \$ | 240.00 | \$ 6,000.00 | 100% | 1995 | 2020 |
| Oscilloscope, Beckman Industrial 9060 | \$ | 20.00 | \$ 500.00 | 100% | 1995 | 2020 |
| DC Power Supply, LEADER LPS 152 | \$ | 20.00 | \$ 500.00 | 100% | 1995 | 2020 |
| 2 - Lock-in-Amplifier, EG&G 5210 | \$ | 320.00 | \$ 8,000.00 | 100% | 1995 | 2020 |
| Digital Oscilloscope, HP 54503A | \$ | 160.00 | \$ 4,000.00 | 100% | 1995 | 2020 |
| 3 - Micro Volt DMM, Keithly | \$ | 60.00 | \$ 1,500.00 | 100% | 1995 | 2020 |
| Nano Voltmeter, Keithly 181 | \$ | 120.00 | \$ 3,000.00 | 100% | 1995 | 2020 |
| Current Source, Keithly 224 | \$ | 240.00 | \$ 6,000.00 | 100% | 1995 | 2020 |
| Controller, Lakeshore Crytronics 805 | \$ | 120.00 | \$ 3,000.00 | 100% | 1995 | 2020 |
| Oscilloscope, Tektronics T922 | \$ | 40.00 | \$ 1,000.00 | 100% | 1995 | 2020 |
| Four Point Probe, FPP5000 | \$ | 240.00 | \$ 6,000.00 | 100% | 1995 | 2020 |
| 2 - Microscope | \$ | 200.00 | \$ 5,000.00 | 100% | 1995 | 2020 |
| Oscilloscope, HP 1740A | \$ | 40.00 | \$ 1,000.00 | 100% | 1995 | 2020 |
| Heating Plate, | \$ | 10.00 | \$ 500.00 | 50% | 1995 | 2020 |
| Pulse Generator, HP 214B | \$ | 59.80 | \$ 1,495.00 | 100% | 1995 | 2020 |
| Impedance Analyzer, HP 4192A | \$ | 275.28 | \$ 6,882.00 | 100% | 1995 | 2020 |
| Curve Tracer, Tektronics 577 | \$ | 400.00 | \$ 10,000.00 | 100% | 1995 | 2020 |
| UV-Visible Spectrometer, Varian 1000 | \$ | 161.29 | \$ 10,000.00 | 50% | 2009 | 2040 |
| 5 - Desktop Computer, Dell | \$ | 62.50 | \$ 500.00 | 50% | 2011 | 2015 |
| Electromagnet, SVS Labs | \$ | 859.50 | \$ 8,595.00 | 100% | 2013 | 2023 |
| Total | \$ | 6,998.79 | \$ 271,240.00 | | | |

ENGR-456 Senior Design Laboratory

EEL-4914 Senior Design I EEL-4915 Senior Design II

Revision Date: Septermber 9, 2014

| ltem | Annualized Co | st | Cost | Purchased | Replace |
|--|---------------|-------|------------|-----------|---------|
| 18 Laboratory Computers | \$ 3,000. | 00 \$ | 18,000.00 | 2009 | 2015 |
| 41 Logic Analyzers | \$ 1,222. | 32 \$ | 13,451.00 | 2009 | 2020 |
| 1 SMT Soldering/Desoldering Station | \$ 459. | 71 \$ | 6,436.00 | 2002 | 2016 |
| 1 LCR Meter | \$ 27. | 96 \$ | 699.00 | 2000 | 2025 |
| 4 Power Supplies, Tektronix PWS4323 | \$ 58. | 50 \$ | 1,172.00 | 2011 | 2031 |
| 4 Power Supplies, Tektronix PWS2721 | \$ 48. | 38 \$ | 1,016.00 | 2010 | 2031 |
| 18 Function Generators, Tektronix AFG3022B | \$ 3,245. | 56 \$ | 35,701.20 | 2010 | 2021 |
| 18 Multimeters, Tektronix DMM4050 | \$ 1,440.9 | 91 \$ | 15,850.00 | 2010 | 2021 |
| 18 Oscilloscopes, Tektronix MSO4034B | \$ 25,688. | 50 \$ | 102,754.00 | 2010 | 2014 |
| 6 Triple Output Power Supply, Agilent E3630A | \$ 562.0 | 55 \$ | 11,253.00 | 2009 | 2029 |
| 18 Keithly Triple Channel Power Supply | \$ 18,000.0 | 00 \$ | 18,000.00 | 2013 | 2014 |
| 30 Storage Cabinets | \$ 200.0 | 00 \$ | 4,000.00 | 2014 | 2034 |
| 32 Lab Chairs | \$ 533.3 | 33 \$ | 8,000.00 | 2000 | 2015 |
| 18 Lab Benches | \$ 432.4 | 12 \$ | 14,270.00 | 2007 | 2040 |
| Senior Design Server | \$ 619.0 | 00 \$ | 2,476.00 | 2014 | 2018 |
| Electronic Lock | \$ 500.0 | 00 \$ | 5,000.00 | 2013 | 2023 |
| 4 Security Cameras | \$ 1,333.5 | 33 \$ | 4,000.00 | 2011 | 2014 |
| 50 Seat Licence for Eagle PCB Software | \$ 222.2 | 22 \$ | 2,000.00 | 2011 | 2020 |
| Total | \$ 57,595.4 | 11 \$ | 264,078.20 | | |

ENGR-461 RF & Microwave Laboratory

EEL-4436 Microwave Engineering

EEL-5437 Microwave Engineering

EEL-5439 RF & Microwave Communications

EEL-5462 Antenna Analysis and Design

EEL-5425 RF & Microwave Measurement Techniques

Revision Date: Septermber 9, 2014

Some equipment items are used for both instruction and research. The percentage of instructional use is shown.

| Item | Ann | ualized Cost | Cost | Class Use | Purchased | Replace |
|---|-----|--------------|------------------|-----------|-------------|---------|
| 8 Laboratory Computers | \$ | 1,333.33 | \$ 8,000.00 | 100% | 2009 | 2015 |
| 1 Network Printer | \$ | 90.00 | \$ 900.00 | 100% | 2005 | 2015 |
| Network Analyzer, Agilent 8357A | \$ | 9,271.93 | \$ 139,079.00 | 100% | 2002 | 2017 |
| 4 Netowrk Analyzer, Agilent E5471C | \$ | 5,000.00 | \$ 100,000.00 | 100% | 2014 | 2034 |
| 2 Spectrum Analyzers, Rohde \$ Schwarz | \$ | 1,070.00 | \$ 21,400.00 | 100% | 2007 | 2027 |
| 2 Signal Generators, Rohde \$ Schwarz | \$ | 585.45 | \$ 12,880.00 | 100% | 2007 | 2029 |
| UV Source | \$ | 145.15 | \$ 9,870.00 | 50% | 1986 | 2020 |
| Bake Oven | \$ | 37.50 | \$ 1,500.00 | 50% | 2000 | 2020 |
| Headway Resist Spinner | \$ | 56.40 | \$ 3,835.00 | 50% | 1986 | 2020 |
| ADS from Agilent Design Software - 50 seats | \$ | 1,404.00 | \$ 1,404.00 | 100% | annual cost | 2015 |
| Ansoft EM Analysis Software | \$ | 4,000.00 | \$ 4,000.00 | 100% | annual cost | 2015 |
| Computer Tables w/ Electrical | \$ | 535.71 | \$ 7,500.00 | 100% | 2013 | 2027 |
| 3 Electronic Locks | \$ | 1,500.00 | \$ 15,000.00 | 100% | 2013 | 2023 |
| 2 Security Cameras | \$ | 100.00 | \$ 2,000.00 | 50% | 2011 | 2021 |
| Total | \$ | 25,129.48 | \$ 327,368.00 | | B . | |

ENGR-471 Signals and Communications Laboratory

EEL-3552 Signal Analysis & Communications EEL-4140 Analog Filter Design EEL-4512 Communication Systems EEL-4515 Digital Communication Systems

Revision Date: October 2, 2013

| ltem | Ann | ualized Cost | Cost | Purchased | Replace |
|---|-----|--------------|------------------|-----------|---------|
| 13 Oscilloscopes, Tektronix DPO4034B | \$ | 7,258.00 | \$ 72,580.00 | 2009 | 2019 |
| 13 Arbitrary Func. Generators, Tektronix AFG3022B | \$ | 2,077.00 | \$ 20,770.00 | 2009 | 2019 |
| 13 Digital Multimeter, Tektronix DMM4050 | \$ | 1,144.80 | \$ 11,448.00 | 2010 | 2020 |
| 13 Power Supplies, Tektronix PWT4301 | \$ | 395.45 | \$ 7,909.00 | 2011 | 2031 |
| 13 Dell 990 PC's | \$ | 2,166.67 | \$ 13,000.00 | 2009 | 2015 |
| 26 Lab Stools | \$ | 557.14 | \$ 7,800.00 | 2000 | 2014 |
| Electronic Lock | \$ | 500.00 | \$ 5,000.00 | 2013 | 2023 |
| 2 Security Cameras | \$ | 200.00 | \$ 2,000.00 | 2011 | 2021 |
| Total | \$ | 14,299.06 | \$ 140,507.00 | | |

ENGR-474 Electronics Laboratory

EEL-3123 Networks and Systems EEE-3307 Electronics I EEE-4309 Electronics II

Revision Date: Septermber 9, 2014

| ltem | A | nnualized Cost | Cost | Purchased | Replace |
|--|----|----------------|------------------|-----------|---------|
| 21 Oscilloscopes, Tektronix DPO4034B | \$ | 10,716.20 | \$ 107,162.00 | 2011 | 2021 |
| 21 Arb. Func. Generators, Tektronix AFG3022B | \$ | 3,355.10 | \$ 33,551.00 | 2011 | 2021 |
| 40 Multimeters, Tektronix DMM40500 | \$ | 3,129.80 | \$ 31,298.00 | 2011 | 2021 |
| 21 Power Supplies, Tektronix PWT4301 | \$ | 638.75 | \$ 12,775.00 | 2011 | 2031 |
| 8 Lab Benches | \$ | 361.81 | \$ 11,216.00 | 2010 | 2041 |
| 41 Dell PC's | \$ | 6,833.33 | \$ 41,000.00 | 2009 | 2015 |
| 41 Lab Stools | \$ | 1,221.76 | \$ 12,217.59 | 2013 | 2023 |
| Electronic Lock | \$ | 500.00 | \$ 5,000.00 | 2013 | 2023 |
| 4 Security Cameras | \$ | 1,333.33 | \$ 4,000.00 | 2011 | 2014 |
| Total | \$ | 28,090.08 | \$ 258,219.59 | | |



Forward to your college office

This form is to be used for requests to add, change, or delete equipment fee requests for a program. All requests for the next catalog must be submitted by October 24 for the November agenda deadline of the Graduate Council Committee (Dean Ross Hinkle).

Request routing: 1) Department Chair to College Dean's Office; 2) Dean's Office; 3) Graduate Council Curriculum Committee; 4) A list of approved requests will be forwarded to the provost for final approval. 5) University Board of Trustees — information only.

Under the rules of the Board of Trustees for the University of Central Florida, equipment fees may be assessed for the use and replacement of equipment. Fees take effect in the fall semester of each year. Departments must maintain detailed accounting of all expenditures and report them to the Dean of the Graduate College on July 1 of each year. Equipment Fee maximum per semester: \$90.00 Full-time: \$45.00 Part-time.

| ate Submitted: 10/21/14 | College: CECS | | |
|--|-------------------|--------------------------------|---------------|
| epartment: Materials Science and Engineering | rich | | |
| | | | |
| Degree program: Materials Science and Engineering PhD and Materials Science and Engineering MS | | | |
| quipment Fees: | the second | | |
| all graduate student enrollment: 51 F | Full-time 43 | Part-time | 8 |
| | Full-time \$17.00 | Part-time | \$8.50 |
| Provide detailed Justification for the Request: use additional sheet if necessary) | | | |
| hours at the Rigaku XRD II system (cost: 50\$ per hour). The enceded to deepen the knowledge of students and to train the related to the course content. Per year this results in costs of | m on the basic of | eration of ed | Tribine: ir |
| | | | |
| (use additional sheet if necessary) | | Cost | Lifetime |
| use additional sheet if necessary) Equipment | | | Lifetime : 20 |
| use additional sheet if necessary) Equipment Tecnai F30 Transmission Electron Microscope | | Cost | ļ |
| use additional sheet if necessary) Equipment | | Cost \$2,000,000 | 20 |
| Equipment Tecnai F30 Transmission Electron Microscope JEOL 1010 TEM | | Cost \$2,000,000 400,000 | 20 20 |

Equipment replacement/upgrade cost/year: \$130,000

| Maintenance | Cost | Lifetime |
|---------------------------------------|--------------------|----------|
| Maintenance contract for Tecnai F30 | \$150,000 per year | 20 |
| Maintenance for JEOL 1010 | \$15,000 per year | 20 |
| Rigaku II XRD | \$5,000 per year | 20 |
| | | |
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| | | |
| | | |
| | | |
| | | |
| Total of Costs: | \$170,000 per year | |

| laintenance plans and maintenance cost/year | \$ 1 | 7 | 0 | ,(|)(| 0 | (|
|--|---------|---|---|----|----|---|---|
| taintenance blans and maintenance costivear: | | | | • | | | |

Total cost for equipment replacement, upgrade, maintenance, and maintenance contracts per year: \$300,000 (\$2,400)

Any special conditions or exemptions must be identified:

About 0.8% of the user time for each of the 3 pieces of equipment at the MCF are used to teaching in EMA 6518 and EMA 6516. The remaining 96% of time are used by MCF customers (external companies, UCF faculty and students for their research projects as well as users from other universities). The amount of \$1,200 represents the 0.8% time used at these systems for the 2 courses in the PhD and MS programs of Materials Science and Engineering.

| Payment Details | 40070004 | | |
|-------------------------|--|-----------------------------------|---------------|
| Account Number to I | Deposit Fees: 16270801 | | |
| Item Type: Lab e | xpense account for Materials S | cience and Engineering Department | artment |
| Contact Person: | odi Peters | | |
| Phone Number: 40 | | | |
| Prione Number: | | | |
| RECOMMENDED | APPROVAL (all approval levels must | be signed) | |
| Department Chair | | | Date 10/22/14 |
| College Academic | (Print) Sudipta Seal (Print) Charlest Reilly | (Signature) Charles Milly | Date 10/23/14 |
| Standards | | | |
| College Dean | (Print) Michael Georgisponles | (Signature) | Date 10/23/14 |
| Graduate Council | (Print) | (Signature) | Date |
| Graduate Dean | (Print) | (Signature) | Date |
| Approval | | | |
| | sident for Academic Affairs: | | Date |



Forward to your college office

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| Use one form for each program request: | | | | | | |
|--|---------------------------|---------------|----------|--|--|--|
| Date Submitted: | College: | | | | | |
| Department: | Submitted by: | Submitted by: | | | | |
| Degree program: | | | | | | |
| Equipment Fees: | | | | | | |
| Fall graduate student enrollment: | Full-time | Part- | time | | | |
| Fee amount per semester: | Full-time | Part | time | | | |
| Provide detailed Justification for the Request: (use additional sheet if necessary) | | | | | | |
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| Provide detailed cost information about the expenses for which (use additional sheet if necessary) | the fee is to be assessed | d. | | | | |
| Equipment | | Cost | Lifetime | | | |
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| | | | Cost | Lifetime |
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| | | Total of Costs: | | |
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| laintenance plans a | and maintenance cost/year: | | | |
| otal cost for equip | ment replacement, upgrade, ma | aintenance, and maintenance contracts per year: | | |
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| ny special condition | ons or exemptions must be ider | ITITIECI: | | |
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| Payment Details | | | | |
| | Deposit Fees: | | | |
| Account Number to | | | | |
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| tem Type: | | | | |
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| tem Type: Contact Person: Phone Number: | | | | |
| tem Type: Contact Person: Phone Number: RECOMMENDED |) APPROVAL (all approva | | _ Date | |
| tem Type: Contact Person: Phone Number: RECOMMENDED Department Chair College Academic |) APPROVAL (all approva | I levels must be signed) (Signature) | | |
| tem Type: Contact Person: Phone Number: RECOMMENDED Department Chair College Academic Standards | O APPROVAL (all approva | I levels must be signed) (Signature) (Signature) | _ Date | |
| tem Type: Contact Person: Phone Number: RECOMMENDED Department Chair College Academic Standards College Dean | O APPROVAL (all approva (Print) (Print) | I levels must be signed) (Signature) (Signature) (Signature) | _ Date | |
| tem Type: Contact Person: Phone Number: | O APPROVAL (all approva (Print) (Print) (Print) (Print) | I levels must be signed) (Signature) (Signature) (Signature) | Date Date Date | |
| tem Type: Contact Person: Phone Number: RECOMMENDED Department Chair College Academic Standards College Dean Graduate Council | O APPROVAL (all approva (Print) (Print) (Print) (Print) | I levels must be signed) (Signature) (Signature) (Signature) (Signature) (Signature) | Date Date Date | |



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| Use one form for each program request: | | | |
|--|---------------------------|-------|----------|
| Date Submitted: College: | | | |
| Department: | Submitted by: | | |
| Degree program: | | | |
| Equipment Fees: | | | |
| Fall graduate student enrollment: | Full-time | Part- | time |
| Fee amount per semester: | Full-time | Part | time |
| Provide detailed Justification for the Request: (use additional sheet if necessary) | | | |
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| Provide detailed cost information about the expenses for which (use additional sheet if necessary) | the fee is to be assessed | d. | |
| Equipment | | Cost | Lifetime |
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| | | | Cost | Lifetime |
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| | | Total of Costs: | | |
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| laintenance plans a | and maintenance cost/year: | | | |
| otal cost for equip | ment replacement, upgrade, ma | aintenance, and maintenance contracts per year: | | |
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| ny special condition | ons or exemptions must be ider | ITITIECI: | | |
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| Payment Details | | | | |
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| tem Type: Contact Person: Phone Number: | | | | |
| tem Type: Contact Person: Phone Number: RECOMMENDED |) APPROVAL (all approva | | _ Date | |
| tem Type: Contact Person: Phone Number: RECOMMENDED Department Chair College Academic |) APPROVAL (all approva | I levels must be signed) (Signature) | | |
| tem Type: Contact Person: Phone Number: RECOMMENDED Department Chair College Academic Standards | O APPROVAL (all approva | I levels must be signed) (Signature) (Signature) | _ Date | |
| tem Type: Contact Person: Phone Number: RECOMMENDED Department Chair College Academic Standards College Dean | O APPROVAL (all approva (Print) (Print) | I levels must be signed) (Signature) (Signature) (Signature) | _ Date | |
| tem Type: Contact Person: Phone Number: | O APPROVAL (all approva (Print) (Print) (Print) (Print) | I levels must be signed) (Signature) (Signature) (Signature) | Date Date Date | |
| tem Type: Contact Person: Phone Number: RECOMMENDED Department Chair College Academic Standards College Dean Graduate Council | O APPROVAL (all approva (Print) (Print) (Print) (Print) | I levels must be signed) (Signature) (Signature) (Signature) (Signature) (Signature) | Date Date Date | |



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| | Car Maria Residenti | V5-794. ASSESSOR (6005)AS | | |
|--|--------------------------|--|---|-------------------------------|
| Use one form for each program request: | | | | |
| Date Submitted: 11/20/2014 | College: | Sciences | | |
| Department: Sociology | Submitte | d by: | | |
| Degree program: Sociology PhD | taranta anta a | | | |
| | | 77 5 6 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | | |
| Equipment Fees: | | | | |
| Fall graduate student enrollment: (Annual enrollment 78FT/24PT) | Full-time | 33 | _ Part-time | 7 |
| Fee amount per semester: | Full-time | \$39 | _ Part-time | \$19.50 |
| | SECTION OF A SECTION SEC | | 547500000000000000000000000000000000000 | |
| Provide detailed Justification for the Request: (use additional sheet if necessary) | | | | |
| Howard Phillips Hall room 409 is a graduate-only departmental of MA, Security Studies PhD, and Sociology PhD programs use to crequest is for one of these programs. Based on annual enrollment and actual use, the programs will split the equipment and maintent Political Science MA: 40% Security Studies PhD: 10% Sociology PhD: 50% | complete nt figures | requirements obtained via | of their de the Pegasi | grees. This us Mine Portal |
| | 736 S.W. Y. Y. Y. Y. | | | |
| Provide detailed cost information about the expenses for which the f (use additional sheet if necessary) | fee is to b | e assessed. | | |
| Equipment | | Cos | st . | Lifetime |
| Lab Computers (17, \$1100 each, 5 year refresh) | | | \$3740 | \$18700 |
| Printer (5 year refresh) | | | \$100 | \$500 |
| | | | | |
| - W-11/20/AVV | | | | |
| | | | *************************************** | |
| | | | | |
| | | | | |

Total of Costs:

\$3840

\$19200

Equipment replacement/upgrade cost/year: \$3840

| Maintenance | Cost | Lifetime |
|---|---|----------|
| Computer Maintenance (17 computers) | \$3400 | \$17000 |
| SPSS Software Licenses (17 computers) | \$1275 | \$6375 |
| Security Camera Maintenance (2 cameras) | \$200 | \$1000 |
| STATA SE Licenses (17 computers) | \$259 | \$1295 |
| | | |
| | | |
| Total of Costs: | \$5134 | \$25670 |
| Maintenance plans and maintenance cost/year: \$5134 Total cost for equipment replacement, ungrade, maintenance, and maintenance contracts por year: \$897 | 7.A | |
| | | |
| Any special conditions or exemptions must be identified: | | |
| | | |
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| | | |
| | W. C | |
| Payment Details | | |
| Account Number to Deposit Fees: | | |
| Item Type: Graduate equipment fees for HPH 409 | | |
| Contact Person: TAMARA PUWIN | | |
| Phone Number: 407-833-2237 | | |
| | 55 - 55 5 X (2 7) (27) (27) (27) | |
| RECOMMENDED APPROVAL (all approval levels must be signed) | ı <i>1</i> | |
| Department Chair (Print) Elizabeth Mustaine (Signature) Alk Charter El | Date | 21/14 |
| RECOMMENDED APPROVAL (all approval levels must be signed) Department Chair (Print) Elizabeth Mustaine (Signature) Recommendation (Print) Arlen F. Chase (Signature) Standards | 2-#Date | 21/14 |
| College Dean (Print) (Signature) | Date | |
| Graduate Council (Print) (Signature) | | |
| Graduate Dean (Print) (Signature) | Date | |
| Approval | | |
| Provost and Vice President for Academic Affairs: | Date | |

M&S Fees Agenda

November 24, 2014

| College | Course | Title | Current Fee | Requested A | pproved Fee |
|---------|-----------|---------------------------|-------------|----------------------------------|----------------|
| CAH | MUN 5125 | Concert Band | \$ 20.00 | \$ 20.00 | \$ 0.00 |
| CAH | MUN 5145 | Wind Ensemble | \$ 20.00 | \$ 20.00 | \$ 0.00 |
| CAH | MUN 5215 | Symphony Orchestra | \$ 20.00 | \$ 20.00 | \$ 0.00 |
| CAH | MUN 5325 | Women's Chorus | \$ 20.00 | \$ 20.00 | \$ 0.00 |
| CAH | MUN 5368L | Graduate Madrigal Singers | \$ 20.00 | \$ 20.00 | \$ 0.00 |
| CAH | MUN 5385L | Graduate University Choru | \$ 20.00 | \$ 20.00 | \$ 0.00 |
| CAH | MUN 5465L | Graduate Chamber Music | \$ 20.00 | \$ 20.00 | \$ 0.00 |
| CAH | MUN 5478L | Early Music Ensemble | \$ 5.00 | \$ 5.00 | \$ 0.00 |
| CAH | MUN 5715L | Jazz Ensemble | \$ 20.00 | \$ 20.00 | \$ 0.00 |
| CAH | MUN 5716L | Jazz Chamber Group | \$ 20.00 | \$ 20.00 | \$ 0.00 |
| CAH | MVJ 5359C | Jazz Drum Set V | \$ 35.00 | \$ 35.00 | \$ 0.00 |
| CAH | MVJ 6369C | Jazz Drum Set VI | \$ 35.00 | \$ 35.00 | \$ 0.00 |
| CAH | MVP 5451 | Percussion V | \$ 35.00 | \$ 35.00 | \$ 0.00 |
| CAH | MVP 6461 | Percussion VI | \$ 35.00 | \$ 35.00 | \$ 0.00 |
| CAH | ART 5280 | Serial Content | \$ 45.00 | \$ 45.00 | \$ 0.00 |
| CAH | ART 5670C | Digital Illustration | \$ 45.00 | \$ 0.00 | \$ 0.00 |
| CAH | ART 5698 | Concourse I | \$ 45.00 | \$ 45.00 | \$ 0.00 |
| CAH | ART 5811C | The Professional Practice | \$ 45.00 | \$ 45.00 | \$ 0.00 |
| CAH | ART 5910 | Studio Concentration I | \$ 45.00 | \$ 45.00 | \$ 0.00 |
| CAH | ART 6281C | Serial Content and Classi | \$ 45.00 | \$ 0.00 | \$ 0.00 |
| CAH | ART 6697 | Web Art II | \$ 45.00 | \$ 45.00 | \$ 0.00 |
| CAH | ART 6743C | Intermedia Sculpture | \$ 35.00 | \$ 35.00 | \$ 0.00 |
| CAH | ART 6911 | Studio Concentration II | \$ 45.00 | \$ 45.00 | \$ 0.00 |
| CAH | FIL 6596 | Advanced Directing Worksh | \$ 0.00 | \$ 265.39 70 a | \$ 0.00 |
| CAH | PGY 5108C | Advanced Techniques and C | \$ 45.00 | \$ 0.00 | \$ 0.00 |
| CAH | TPA 5885C | Puppetry | \$ 30.00 | \$ 30.00 | \$ 0.00 |
| CAH | TPP 6216C | Theatre for Young Audienc | \$ 45.00 | \$ 45.00 | \$ 0.00 |
| cos | ANG 6821 | Forensic Archeology Field | \$ 22.00 | \$- 220.30 2 Z | \$ 0.00 |
| cos | BSC 5408L | Advanced Biology Laborato | \$ 15.00 | \$ 0.00 | \$ 0.00 |

| cos | BSC 5824 | Biogeography | \$ 15.00 | \$ 0.00 | \$ 0.00 |
|-----|-----------|---------------------------|----------|----------|---------|
| COS | ENY 5006C | Entomology | \$ 40.00 | \$ 40.00 | \$ 0.00 |
| COS | PCB 5045 | Conservation Biology | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | PCB 5435C | Marine Ecology of Florida | \$ 45.00 | \$ 0.00 | \$ 0.00 |
| COS | PCB 5485 | Models in Ecology | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | PCB 5665C | Human Genetics | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | PCB 6107C | Advanced Cell Biology | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | PCB 6256C | Advanced Developmental Bi | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | PCB 6328C | Landscape Ecology | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | PCB 6365 | Environmental Physiology | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | PCB 6556 | Conservation Genetics | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | PCB 6585C | Advanced Genetics | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | PCB 6675C | Evolutionary Biology | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | PCB 6727 | Comparative Animal Physio | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | CHM 5451C | Techniques in Polymer Sci | \$ 45.00 | \$ 62.69 | \$ 0.00 |
| COS | CHS 6535L | Forensic Analysis of Biol | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | PHY 5817L | Building Physics Apparatu | \$ 45.00 | \$ 45.00 | \$ 0.00 |
| COS | CLP 6195C | Introduction to Psychothe | \$ 15.00 | \$ 10.00 | \$ 0.00 |
| COS | CLP 6441C | Individual Psychological | \$ 20.00 | \$ 19.54 | \$ 0.00 |
| COS | CLP 6449C | Career and Lifestyle Asse | \$ 30.00 | \$ 31.43 | \$ 0.00 |
| COS | CLP 6459C | Human Sexuality, Marriage | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| COS | CLP 6460C | Introduction to Child, Ad | \$ 15.00 | \$ 17.88 | \$ 0.00 |
| COS | CLP 7943C | Clinical Practicum | \$ 15.00 | \$ 15.00 | \$ 0.00 |
| ECS | CCE 5220 | Sustainable Infrastructur | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| ECS | EEL 5437C | Microwave Engineering | \$ 38.81 | \$ 40.00 | \$ 0.00 |
| ECS | EML 5532C | Computer-Aided Design for | \$ 15.00 | \$ 0.00 | \$ 0.00 |
| ED | SPS 6125 | Preschool Psychoeducation | \$ 42.00 | \$ 41.64 | \$ 0.00 |
| ED | SPS 6194 | Assessment of Special Nee | \$ 45.00 | \$ 51.00 | \$ 0.00 |
| ED | ARE 5359 | Teaching Art K-12 | \$ 5.00 | \$ 5.00 | \$ 0.00 |
| ED | ARE 5454 | Studio Experiences in Art | \$ 5.00 | \$ 10.00 | \$ 0.00 |
| ED | ARE 6195 | Teaching Art Appreciation | \$ 5.00 | \$ 5.00 | \$ 0.00 |
| ED | ARE 6666 | Arts Advocacy | \$ 5.00 | \$ 5.00 | \$ 0.00 |
| ED | SCE 7935 | SeminarProfessional Wri | \$ 35.00 | \$ 0.00 | \$ 0.00 |
| HPA | SPA 6410 | Aphasia and Related Disor | \$ 30.00 | \$ 60.74 | \$ 0.00 |

| HPA | SPA 6417 | Cognitive/Communicative D | \$ 38.00 | \$ 61.36 | \$ 0.00 |
|-----|-----------|---------------------------|----------|----------|---------|
| HPA | PHT 5241L | Therapeutic Exercise Lab | \$ 15.00 | \$ 19.43 | \$ 0.00 |
| HPA | PHT 6245L | Therapeutic Exercise II L | \$ 15.00 | \$ 15.47 | \$ 0.00 |
| HPA | PHT 6381C | Cardiopulmonary Physical | \$ 15.00 | \$ 14.98 | \$ 0.00 |
| HPA | PHT 6716C | Advanced Orthopedic Physi | \$ 25.00 | \$ 25.88 | \$ 0.00 |
| HPA | PHT 6720 | Wound Care and Profession | \$ 45.00 | \$ 44.83 | \$ 0.00 |
| HPA | PHT 7134C | Physical Therapy Integrat | \$ 15.00 | \$ 14.32 | \$ 0.00 |
| HPA | PHT 7722C | Physical Therapy Integrat | \$ 15.00 | \$ 14.52 | \$ 0.00 |

MUN 5125 CAH-MUSIC 1(0,3)

Concert Band: PR: Open to all graduate students by audition. Study and performance of music for large ensembles. May be used in the degree program a maximum of 4 times. *Odd Fall*.

Materials & Supply Fee proposed revision: from \$20.00 to \$20.00

Brief description of fee use:

Funds from this fee will be used to purchase sheet music used by student in the ensemble. Sheet music tends to deteriorate and get lost, so periodic replacement is necessary.

Each item below is per 1 students

| | | | | Denied | |
|----|--------------------|----------------------|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Ensemble Sheet Music | \$ 20.00 | | |
| | | Total: | \$ 20.00 | | |
| | | per 1 student | \$ 20.00 | | |
| | | | | | |

MUN 5145 CAH-MUSIC 1(0,4)

Wind Ensemble: PR: Open to all graduate students by audition. Study and performance of music for wind ensemble and band. May be used in the degree program a maximum of 4 times. *Odd Fall*.

Materials & Supply Fee proposed revision: from \$20.00 to \$20.00

Brief description of fee use:

Funds from this fee will be used to purchase sheet music used by students in the ensemble. Sheet music tends to deteriorate and get lost, so periodic replacement is necessary. There is an identical fee on the corresponding undergraduate wind ensemble for the same purpose.

Each item below is per 1 students

| | | | | Den | ied |
|----|--------------------|----------------------|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Ensemble Sheet Music | \$ 20.00 | | |
| | | Total: | \$ 20.00 | | |
| | | per 1 student | \$ 20.00 | | |
| | | | | | |

MUN 5215 CAH-MUSIC 1(0,5)

Symphony Orchestra: PR: Open to all graduate students by audition. Rehearsal and performance of works from the symphonic repertoire. May be used in the degree program a maximum of 4 times. *Odd Fall.*

Materials & Supply Fee proposed revision: from \$20.00 to \$20.00

Brief description of fee use:

Funds from this fee will be used to purchase sheet music used by students in the ensemble. Sheet music tends to deteriorate and get lost, so periodic replacement is necessary.

Each item below is per 1 students

| | | | | Den | ied |
|----|--------------------|----------------------|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Ensemble Sheet Music | \$ 20.00 | | |
| | | Total: | \$ 20.00 | | |
| | | per 1 student | \$ 20.00 | | |
| | | | | | |

MUN 5325 CAH-MUSIC 1(0,3)

Women's Chorus: PR: Open to all graduate students by audition. Study and performance of choral music for women's voices. May be used in the degree program a maximum of 4 times. *Odd Fall*.

Materials & Supply Fee proposed revision: from \$20.00 to \$20.00

Brief description of fee use:

Funds from this fee will be used to purchase sheet music used by students in the ensemble. Sheet music tends to deteriorate and get lost, so periodic replacement is necessary.

Each item below is per 1 students

| | | | | Den | ied |
|----|--------------------|----------------------|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Ensemble Sheet Music | \$ 20.00 | | |
| | | Total: | \$ 20.00 | | |
| | | per 1 student | \$ 20.00 | | |
| | | | | | |

MUN 5368L CAH-MUSIC 1(0,3)

Graduate Madrigal Singers: PR: Graduate standing in Music Education and C.I. Study of varied literature for small vocal ensembles. May be used in the degree program a maximum of 5 times.

Materials & Supply Fee proposed revision: from \$20.00 to \$20.00

Brief description of fee use:

Funds from this fee will be used to purchase sheet music used by students in the ensemble. Sheet music tends to deteriorate and get lost, so periodic replacement is necessary.

| | | | Den | ied |
|--------------------|-------------|-----------------|-----------|---------|
| # units/1 students | Description | cost/1 students | Committee | Provost |

| | | Ensemble sheet music (score and | | |
|----|---|---------------------------------|----------|--|
| 1. | 1 | parts) | \$ 16.00 | |
| 2. | 1 | performance folder | \$ 4.00 | |
| | | Total: | \$ 20.00 | |
| | | per 1 student | \$ 20.00 | |
| | | · | | |

MUN 5385L CAH-MUSIC 1(0,3)

Graduate University Chorus: PR: Graduate standing in Music Education and C.I. Study and performance of large ensemble music. May be used in the degree program a maximum of 5 times.

Materials & Supply Fee proposed revision: from \$20.00 to \$20.00

Brief description of fee use:

Funds from this fee will be used to purchase sheet music used by students in the ensemble. Sheet music tends to deteriorate and get lost, so periodic replacement is necessary.

Each item below is per 1 students

| | | | | Den | iea |
|----|--------------------|---------------------------------|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| | | Ensemble sheet music (score and | | | |
| 1. | 1 | parts) | \$ 16.00 | | |
| 2. | 1 | Performance Folders | \$ 4.00 | | |
| | | Total: | \$ 20.00 | | |
| | | per 1 student | \$ 20.00 | | |
| | | | | | |

MUN 5465L CAH-MUSIC 1(0,2)

Graduate Chamber Music: PR: Graduate standing in Music Education and C.I. The study and performance of vocal and/or instrumental chamber ensemble literature. Flexible instrumentation to meet student needs. May be used in the degree program a maximum of 5 times.

Materials & Supply Fee proposed revision: from \$20.00 to \$20.00

Brief description of fee use:

Funds from this fee will be used to purchase sheet music used by students in the ensemble. Sheet music tends to deteriorate and get lost, so periodic replacement is necessary.

Each item below is per 1 students

| | | | | Denied | |
|----|--------------------|----------------------|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Ensemble Sheet Music | \$ 20.00 | | |

Danied

Total: \$ 20.00

per 1 student \$ 20.00

MUN 5478L CAH-MUSIC 1(0,3)

Early Music Ensemble: PR: Graduate standing in Music Education and C.I. Graduate ensemble experience with instruments and repertoire of the Medieval, Renaissance, and Baroque periods. May be used in the degree program a maximum of 5 times. .

Materials & Supply Fee proposed revision: from \$5.00 to \$5.00

Brief description of fee use:

Funds from this fee will be used to purchase sheet music used by students in the ensemble. Sheet music tends to deteriorate and get lost, so periodic replacement is necessary.

Each item below is per 1 students

| | | | | Denied | | |
|----|--------------------|----------------------------|-----------------|-----------|---------|--|
| | # units/1 students | Description | cost/1 students | Committee | Provost | |
| 1. | 1 | Ensemble Sheet music parts | \$ 5.00 | | | |
| | | Total: | \$ 5.00 | | | |
| | | per 1 student | \$ 5.00 | | | |
| | | | | | | |

MUN 5715L CAH-MUSIC 1(0,4)

Jazz Ensemble: PR: Audition, graduate or senior standing, and C.I. Study and performance of jazz big band music. May be used in the degree program a maximum of 4 times only when course content is different. *Fall, Spring.*

Materials & Supply Fee proposed revision: from \$20.00 to \$20.00

Brief description of fee use:

Funds from this fee will be used to purchase sheet music used by students in the ensemble. Sheet music tends to deteriorate and get lost, so periodic replacement is necessary.

| | | | | Denied | |
|----|--------------------|----------------------|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Ensemble Sheet Music | \$ 20.00 | | |
| | | Total: | \$ 20.00 | | |
| | | per 1 student | \$ 20.00 | | |
| | | | | | |

MUN 5716L CAH-MUSIC 1(0,2)

Jazz Chamber Group: PR: Audition, graduate standing or senior standing, and C.I. Study and performance of jazz small group music. May be used in the degree program a maximum of 4 times. *Fall, Spring.*

Materials & Supply Fee proposed revision: from \$20.00 to \$20.00

Brief description of fee use:

Funds from this fee will be used to purchase sheet music used by students in the ensemble. Sheet music tends to deteriorate and get lost, so periodic replacement is necessary.

Each item below is per 1 students

| | | | | Den | ied |
|----|--------------------|---------------------------------|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| | | Ensemble Sheet Music (score and | | | |
| 1. | 1 | parts) | \$ 20.00 | | |
| | | Total: | \$ 20.00 | | |
| | | per 1 student | \$ 20.00 | | |
| | | | | | |

MVJ 5359C CAH-MUSIC 2(1,1)

Jazz Drum Set V: PR: Audition, graduate standing or senior standing, and C.I. Study of jazz drum set literature, styles, and techniques. May be used in the degree program a maximum of 3 times only when course content is different. *Fall, Spring.*

Materials & Supply Fee proposed revision: from \$35.00 to \$35.00

Brief description of fee use:

Jazz drum set students practice on UCF owned instruments. Snare drums and bass drums on each drum set have "drum heads" that are struck repeatedly by the students. These heads are made of plastic or animal skin and break or rip on a regular basis. Tension rods are a part of the hardware that holds drums in place. While the hardware itself does not wear appreciably the tension rods do wear and must be replaced regularly. Cymbals are suspended via felts and need to be replaced as they wear out. Although breakage and wear occurs throughout the semester, all of these items need to be replaced at least annually.

| | | | | Denied | |
|----|--------------------|--|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Drum Heads (1 per student per semester @ \$25.00) | \$ 25.00 | | |
| 2. | 1 | Tension Rods (1 per student per semester @ \$5.00) | \$ 5.00 | | |

| 3. | 1 set | Cymbal Felts (1 per student per semester @ \$5.00) | \$ 5.00 | |
|----|-------|---|----------|--|
| | | Total: | \$ 35.00 | |
| | | per 1 student | \$ 35.00 | |
| | | | | |

MVJ 6369C CAH-MUSIC 2(1,1)

Jazz Drum Set VI: PR: Admission into the MA in Music and an audition. Advanced study of jazz drum set literature, styles and techniques; continuation of Jazz Drum Set V. May be used in the degree program a maximum of 3 times only when course content is different. *Fall, Spring.*

Materials & Supply Fee proposed revision: from \$35.00 to \$35.00

Brief description of fee use:

Jazz drum set students practice on UCF owned instruments. Snare drums and bass drums on each drum set have "drum heads" that are struck repeatedly by the students. These heads are made of plastic or animal skin and break or rip on a regular basis. Tension rods are a part of the hardware that holds drums in place. While the hardware itself does not wear appreciably the tension rods do wear and must be replaced regularly. Cymbals are suspended via felts and need to be replaced as they wear out. Although breakage and wear occurs throughout the semester, all of these items need to be replaced at least annually.

Each item below is per 1 students

| | | | | Denied | | |
|----|--------------------|--|-----------------|-----------|---------|--|
| | # units/1 students | Description | cost/1 students | Committee | Provost | |
| 1. | 1 | Drum Head (1 per student per semester @\$25.00) | \$ 25.00 | | | |
| 2. | 1 | Tension Rods (1 set per semester per student @ \$5.00) | \$ 5.00 | | | |
| 3. | 1 | Cymbal felts (1 set per student per semester @ \$5.00) | \$ 5.00 | | | |
| | | Total: | \$ 35.00 | | | |
| | | per 1 student | \$ 35.00 | | | |
| | | | | | | |

MVP 5451 CAH-MUSIC 2(1,0)

Percussion V: PR: Graduate status or senior standing and C.I. May be repeated for credit. *Fall, Spring.*

Materials & Supply Fee proposed revision: from \$35.00 to \$35.00

Brief description of fee use:

Percussion students practice on UCF owned equipment and instruments. Snare drums, bass drums, tom-toms. World Music drums, and timpani all have "drum heads" that are struck repeatedly by the students. These heads are made of plastic or animal skin and break or rip on a regular basis. The students practice on mallet keyboard instruments. The bars are suspended by a custom made rope breaks after a number of hours of the bars being struck. Cymbals are suspended via straps and felts and they need to be replaced as they wear out. Although breakage and wear occurs throughout the semester, all of these items need to be replaced at least annually.

Each item below is per 1 students

| | | | | Denied | |
|----|--------------------|--|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Drum Heads (1 per student per semester @ \$25) | \$ 25.00 | | |
| 2. | 1 | Tension Rope (1 set per semester per student @ \$10) | \$ 5.00 | | |
| 3. | 1 | Cymbal Felts (1 set per student per semester @ \$5) | \$ 5.00 | | |
| | | Total: | \$ 35.00 | | |
| | | per 1 student | \$ 35.00 | | |
| | | | | | |

MVP 6461 CAH-MUSIC 2(1,1)

Percussion VI: PR: Admission into MA in Music degree program and audition. Intensive advanced study of percussion instruments. May be used in the degree program a maximum of 4 times. *Odd Fall*.

Materials & Supply Fee proposed revision: from \$35.00 to \$35.00

Brief description of fee use:

Percussion students practice on UCF owned equipment and instruments. Snare drums, bass drums, tom-toms. World Music drums, and timpani all have "drum heads" that are struck repeatedly by the students. These heads are made of plastic or animal skin and break or rip on a regular basis. The students practice on mallet keyboard instruments. The bars are suspended by a custom made rope breaks after a number of hours of the bars being struck. Cymbals are suspended via straps and felts and they need to be replaced as they wear out. Although breakage and wear occurs throughout the semester, all of these items need to be replaced at least annually.

| | | | | Denied | | |
|----|--------------------|--|-----------------|-----------|---------|--|
| | # units/1 students | Description | cost/1 students | Committee | Provost | |
| 1. | 1 | Drum Heads (1 per student per semester @ \$25) | \$ 25.00 | | | |

| 2. | 1 | Tension Rods (1 set per semester per student @ \$5.00) | \$ 5.00 | | |
|----|---|--|----------|--|--|
| 3. | 1 | Cymbal felts (1 set per student per semester @ \$5.00) | \$ 5.00 | | |
| | | Total: | \$ 35.00 | | |
| | | per 1 student | \$ 35.00 | | |
| | | | | | |

ART 5280 CAH-SVAD 3(3,0)

Serial Content: Admission to Emerging Media MFA or Digital Media M.A., graduate standing, or C.I. Serial content, story forms, interactive narrative theory and practice for art, digital media and film. Traditional and non-traditional forms of visual and interactive storytelling. *Fall*.

Materials & Supply Fee proposed revision: from \$45.00 to \$45.00

Brief description of fee use:

This course satisfies a SVAD graduation requirement. The materials listed below are required to satisfy course assignments. Previously, students have purchased these materials on their own at greater expense. This fee reduces student costs for the course.

| | | | | Denied | |
|-----|--------------------|--|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Epson 350 mL Ultra Chrome HRD Ink Photo Black | \$ 5.00 | | |
| 2. | 1 | Epson 350 mL Ultra Chrome HRD Ink Matte Black | \$ 5.00 | | |
| 3. | 1 | Epson 350 mL Ultra Chrome HRD Ink Light Black | \$ 5.00 | | |
| 4. | 1 | Epson 350 mL Ultra Chrome HRD Ink Cyan | \$ 5.00 | | |
| 5. | 1 | Epson 350 mL Ultra Chrome HRD Ink Vivid Cyan | \$ 5.00 | | |
| 6. | 1 | Epson 350 mL Ultra Chrome HRD Ink Vivid Magenta | \$ 5.00 | | |
| 7. | 1 | Epson 350 mL Ultra Chrome HRD Ink Vivid Light Magenta | \$ 5.00 | | |
| 8. | 1 | Epson 350 mL Ultra Chrome HRD Ink Yellow | \$ 5.00 | | |
| 9. | 1 | Epson 350 mL Maintenance Tank | \$ 2.50 | | |
| 10. | 1 | Epson Paper Cutting Blade | \$ 2.50 | | |

Total: \$ 45.00

per 1 student \$ 45.00

ART 5670C CAH-SVAD 3(2,4)

Digital Illustration: CR: ART 6683C. Methods and media effects usually associated with traditional illustration in a digital platform. *Spring*.

Materials & Supply Fee proposed revision: from \$45.00 to \$0.00

Brief description of fee use:

Fee is no longer needed.

Each item below is per 12 students

| | | | | Den | ied |
|---------------------|-------------|---------------|------------------|-----------|---------|
| # units/12 students | Description | | cost/12 students | Committee | Provost |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |

ART 5698 CAH-SVAD 3(3,0)

Concourse I: PR: ART 5910 and ART 5280 and ART 5694, or C.I. Digital reproduction of studio works. *Fall.*

Materials & Supply Fee proposed revision: from \$45.00 to \$45.00

Brief description of fee use:

This course satisfies a SVAD graduation requirement. The materials listed below are required to satisfy course assignments. Previously, students have purchased these materials on their own at greater expense. This fee reduces student costs for the course.

| | | | | Den | ied |
|----|--------------------|--|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Black | \$ 5.00 | | |
| 2. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Matte Black | \$ 5.00 | | |
| 3. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Black | \$ 5.00 | | |
| 4. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Cyan | \$ 5.00 | | |

| | | per 1 student | \$ 45.00 | |
|-----|---|--|----------|--|
| | | Total: | \$ 45.00 | |
| 10. | 1 | Epson Printer Paper Cutting Blade | \$ 2.50 | |
| 9. | 1 | Epson 110 mL Maintenance Tank | \$ 2.50 | |
| 8. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Yellow | \$ 5.00 | |
| 7. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Magenta | \$ 5.00 | |
| 6. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Magenta | \$ 5.00 | |
| 5. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Cyan | \$ 5.00 | |

ART 5811C CAH-SVAD 3(3,1)

The Professional Practice of Art: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C (no graduate level prerequisite), graduate status or senior standing, or C.I. Seminar class on political information pertaining to professional practices in the art world. Overview of inventory processing, accounting, and the marketing of art. *Fall.*

Materials & Supply Fee proposed revision: from \$45.00 to \$45.00

Brief description of fee use:

This course satisfies a SVAD graduation requirement. The materials listed below are required to satisfy course assignments. Previously, students have purchased these materials on their own at greater expense. This fee reduces student costs for the course.

| | | | | Den | ied |
|----|--------------------|--|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Black | \$ 5.00 | | |
| 2. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Matte Black | \$ 5.00 | | |
| 3. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Black | \$ 5.00 | | |
| 4. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Cyan | \$ 5.00 | | |
| 5. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Cyan | \$ 5.00 | | |
| 6. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Magenta | \$ 5.00 | | |

| | | per 1 student | \$ 45.00 | |
|-----|---|---|----------|--|
| | | Total: | \$ 45.00 | |
| 10. | 1 | Epson Printer Paper Cutting Blade | \$ 2.50 | |
| 9. | 1 | Epson 110 mL Maintenance Tank | \$ 2.50 | |
| 8. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Yellow | \$ 5.00 | |
| 7. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Magenta | \$ 5.00 | |

ART 5910 CAH-SVAD 3(3,0)

Studio Concentration I: PR: Admission to MFA. Course is the primary for production of work in studio. Students will meet periodically with faculty to discuss progress. Professor will meet with the whole class periodically in order to facilitate a group critique of work completed. May be used in the degree program a maximum of 3 times. *Fall, Spring.*

Materials & Supply Fee proposed revision: from \$45.00 to \$45.00

Brief description of fee use:

This course satisfies a SVAD graduation requirement. The materials listed below are required to satisfy course assignments. Previously, students have purchased these materials on their own at greater expense. This fee reduces student costs for the course.

| | | | | Den | ied |
|----|--------------------|---|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Black | \$ 5.00 | | |
| 2. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Matte Black | \$ 5.00 | | |
| 3. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Black | \$ 5.00 | | |
| 4. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Cyan | \$ 5.00 | | |
| 5. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Cyan | \$ 5.00 | | |
| 6. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Magenta | \$ 5.00 | | |
| 7. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Magenta | \$ 5.00 | | |
| 8. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Yellow | \$ 5.00 | | |

| 9. | 1 | Epson 110 mL Maintenance Tank | \$ 2.50 | |
|-----|---|--|----------|--|
| 10. | 1 | Epson Printer Paper Cutting Blade | \$ 2.50 | |
| | | Total: | \$ 45.00 | |
| | | per 1 student | \$ 45.00 | |
| | | | | |

ART 6281C CAH-SVAD 3(3,3)

Serial Content and Classic Form II: PR: Content and Form I. Studio course exploring the book form via digital technology (for book history, essential basic design principles, and typographical designs) and traditional methods. *Fall*.

Materials & Supply Fee proposed revision: from \$45.00 to \$0.00

Brief description of fee use:

Fee is no longer needed.

Each item below is per 12 students

| | | | | Den | ied |
|---------------------|-------------|---------------|------------------|-----------|---------|
| # units/12 students | Description | | cost/12 students | Committee | Provost |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |
| | | - | | | |

ART 6697 CAH-SVAD 3(3,0)

Web Art II: PR: ART 5695, graduate standing, or C.I. Students explore various programs and pertinent software used in website design and implementation. *Fall.*

Materials & Supply Fee proposed revision: from \$45.00 to \$45.00

Brief description of fee use:

This course satisfies a SVAD graduation requirement. The materials listed below are required to satisfy course assignments. Previously, students have purchased these materials on their own at greater expense. This fee reduces student costs for the course.

| | | | | Den | ied |
|----|--------------------|--|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Black | \$ 5.00 | | |
| 2. | 1 | Epson 110 mL Ultra Chrome K3 lnk Photo Matte Black | \$ 5.00 | | |
| 3. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Black | \$ 5.00 | | |

| | | per 1 student | \$ 45.00 | |
|-----|---|---|----------|--|
| | | Total: | \$ 45.00 | |
| 10. | 1 | Epson Printer Paper Cutting Blade | \$ 2.50 | |
| 9. | 1 | Epson 110 mL Maintenance Tank | \$ 2.50 | |
| 8. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Yellow | \$ 5.00 | |
| 7. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Magenta | \$ 5.00 | |
| 6. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Magenta | \$ 5.00 | |
| 5. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Light Cyan | \$ 5.00 | |
| 4. | 1 | Epson 110 mL Ultra Chrome K3 Ink Photo Cyan | \$ 5.00 | |

ART 6743C CAH-SVAD 3(3,3)

Intermedia Sculpture: PR: Admission to MFA. Enhancing material sense and repertoire regarding material selection, combination, and contextualization in static and dynamic projects. Design integration and enhanced structural awareness via media emphasized. *Occasional*.

Materials & Supply Fee proposed revision: from \$35.00 to \$35.00

Brief description of fee use:

This course satisfies a SVAD graduation requirement. The materials listed below are required to satisfy course assignments. Previously, students have purchased these materials on their own at greater expense. This fee reduces student costs for the course.

Each item below is per 1 students

| | | | | Den | ied |
|----|--------------------|--------------------------------|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Plaster of Paris Dry Mix, 25lb | \$ 10.00 | | |
| 2. | 1 | Axner Sculptural Clay, 50lb | \$ 25.00 | | |
| | | Total: | \$ 35.00 | | |
| | | per 1 student | \$ 35.00 | | |
| | | | | | |

ART 6911 CAH-SVAD 3(3,0)

Studio Concentration II: PR: Admission to MFA and ART 5910. Continuation of Concentration I. The principle class for studio work production. May be used in the degree program a maximum of 2 times. *Fall.*

Materials & Supply Fee proposed revision: from \$45.00 to \$45.00

Brief description of fee use:

This course satisfies a SVAD graduation requirement. The materials listed below are required to satisfy course assignments. Previously, students have purchased these materials on their own at greater expense. This fee reduces student costs for the course.

Each item below is per 1 students

| | | | | Den | ied |
|-----|--------------------|--|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Epson 220 mL Ultra Chrome Ink Photo Black | \$ 5.00 | | |
| 2. | 1 | Epson 220 mL Ultra Chrome Ink Photo Matte Black | \$ 5.00 | | |
| 3. | 1 | Epson 220 mL Ultra Chrome Ink Photo Light Black | \$ 5.00 | | |
| 4. | 1 | Epson 220 mL Ultra Chrome Ink Photo Cyan | \$ 5.00 | | |
| 5. | 1 | Epson 220 mL Ultra Chrome Ink Photo Light Cyan | \$ 5.00 | | |
| 6. | 1 | Epson 220 mL Ultra Chrome Ink Photo Magenta | \$ 5.00 | | |
| 7. | 1 | Epson 220 mL Ultra Chrome Ink Photo Light Magenta | \$ 5.00 | | |
| 8. | 1 | Epson 220 mL Ultra Chrome Ink Photo Yellow | \$ 5.00 | | |
| 9. | 1 | Epson Maintenance Tank | \$ 2.50 | | |
| 10. | 1 | Epson Printer Paper Cutting Blade | \$ 2.50 | | |
| | | Total: | \$ 45.00 | | |
| | | per 1 student | \$ 45.00 | | |
| | | | | | |

FIL 6596 CAH-SVAD 3(3,0)

Advanced Directing Workshop for Film and Digital Media: PR: Admission to MFA Film & Digital Media-Entre Dig Cin track or C.I. Advanced directorial concepts and techniques used in film to elicit, support and direct compelling film performances. May be used in the degree program a maximum of 2 times only when course content is different. *Fall, Spring*.

Materials & Supply Fee proposed revision: from \$0.00 to \$265.39

Brief description of fee use:

This course satisfies a SVAD graduation requirement. The materials listed below are required to satisfy course assignments. Previously, students have purchased these materials on their own at greater expense. This fee reduces student costs for the course. Department/College requests fee of \$70.

| | · | | | Den | ied |
|-----|--------------------|--|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | Lee Filters Master Location Lighting Gel Pack - (36) 12"x10" Sheets | \$ 45.00 | | |
| 2. | 2 | Filmtools Small Core 2" Gaffer Tape - 30 Yards (1) Black & (1) White | \$ 11.95 | | |
| 3. | 2 | Filmtools Small Core 1" Camera Tape - 30 Yards (1) Black & (1) White | \$ 6.95 | | |
| 4. | 1 | Filmtools Small Core 2" Paper Tape - 30 Yards Photo Matte Black | \$ 17.65 | | |
| 5. | 2 | KleenSlate Dry Marker & Eraser - Black | \$ 2.35 | | |
| 6. | 1 | Orangewood Sticks - Pack of 5 | \$ 0.98 | | |
| 7. | 1 | Kimtech Delicate Task Wipes 4.4"x8.4" - Box of 280 Sheets | \$ 3.45 | | |
| 8. | 1 | Pancro Lens Cleaning Fluid - 4 oz | \$ 15.50 | | |
| 9. | 1 | Duracell Procell Alkaline Batteries AA - Pack of 24 | \$ 10.97 | | |
| 10. | 2 | Dust-Off Compressed Air Classic Duster - Refill Can | \$ 10.75 | | |
| 11. | 1 | Puritan 6" Cotton Swab - Pack of 100 | \$ 1.50 | | |
| 12. | 1 | Tech Spray Isopropyl Alcohol Wipe | \$ 0.53 | | |
| 13. | 1 | Gretag Macbeth X-Rite ColorChecker Custom White Balance Card | \$ 49.00 | | |
| 14. | 1 | Delta 1 18% Grey Card | \$ 10.75 | | |
| 15. | 1 | Macbeth ColorChecker Color Chart | \$ 69.38 | | |
| 16. | 1 | Diamond C47 Hardwood Spring Loaded Pins - Bag of 50 | \$ 3.20 | | |
| 17. | 1 | Eagle 1482 3-to-1 Electrical Cube Tap | \$ 4.50 | | |
| 18. | 1 | Cooper 419GY Ground Lift Adapter | \$ 0.98 | | |
| | | Total: | \$265.39 | | |
| | | per 1 student | \$265.39 | | |

PGY 5108C CAH-SVAD 3(2,4)

Advanced Techniques and Concepts in Photography: PR: PGY 2401C, PGY 3410C and PGY 4420C, or admission into MFA graduate program. Advanced techniques and concepts in photography, introducing historic and contemporary photographic works. May be used in the degree program a maximum of 3 times. *Occasional.*

Materials & Supply Fee proposed revision: from \$45.00 to \$0.00

Brief description of fee use:

Each item below is per 12 students

| | | | | Den | ied |
|------------------|-----------------|---------------|------------------|-----------|---------|
| # units/12 stude | nts Description | | cost/12 students | Committee | Provost |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |

TPA 5885C CAH-THEA 2(2,2)

Puppetry: PR: Admission to MFA graduate program or C.I. Puppetry as an art form in design and performance. *Odd Spring*.

Materials & Supply Fee proposed revision: from \$30.00 to \$30.00

Brief description of fee use:

Student projects in this course include design, construction, and performance of puppets/puppetry. Student fees cover some materials and supplies for the projects.

Each item below is per 1 students

| | | | | | Den | ied |
|----|--------------------|-----------------|---------------|-----------------|-----------|---------|
| | # units/1 students | Description | | cost/1 students | Committee | Provost |
| 1. | 1 | Glue/ Adhesives | | \$ 5.00 | | |
| 2. | 1 | L200 Foam | | \$ 20.00 | | |
| 3. | 1 | Fabric/Fur | | \$ 5.00 | | |
| | | | Total: | \$ 30.00 | | |
| | | | per 1 student | \$ 30.00 | | |
| | | | | | | |

TPP 6216C CAH-THEA 3(3,6)

Theatre for Young Audiences Tour: PR: Admission to the graduate program in Theatre or C.I. Performance, administration and technical work on a touring production for young audiences. *Even Spring.*

Materials & Supply Fee proposed revision: from \$45.00 to \$45.00

Brief description of fee use:

During the course of the semester students produce, market, perform/tour a theatrical production. Student fees are used to provide materials for construction of costumes, props, scenery, and lighting for the production.

Each item below is per 1 students

| | | | | | Den | ied |
|----|--------------------|--------------|--------------|-----------------|-----------|---------|
| | # units/1 students | Description | | cost/1 students | Committee | Provost |
| 1. | 1 | 2x4 lumber | | \$ 5.00 | | |
| 2. | 1 | Plywood | | \$ 10.00 | | |
| 3. | 1 | Lighting Gel | | \$ 5.00 | | |
| 4. | 1 | Fabric | | \$ 10.00 | | |
| 5. | 1 | Paint | | \$ 5.00 | | |
| 6. | 1 | Foam | | \$ 5.00 | | |
| 7. | 1 | Adhesives | | \$ 5.00 | | |
| | | | Total: | \$ 45.00 | | |
| | | р | er 1 student | \$ 45.00 | | |
| | | | | | | |

ANG 6821 COS-ANTHRO 3(3,0)

Forensic Archeology Field Methods: PR: Admission to Anthropology MA, Maya Studies GC, or C.I. Application of archeological techniques to the search, recovery, excavation and documentation of modern human remains. *Occasional*.

Materials & Supply Fee proposed revision: from \$22.00 to \$220.30

Brief description of fee use:

Part of the course objectives includes students having hands-on experience with archaeological field techniques used to survey, map, identify, document, handle, package, and conserve human remains. Fees will be used to purchase supplies for students to use in the completion of field exercises that address archaeological techniques and other class assignments involving the safe use of the department bone collections.

| | | | Den | ied |
|--------------------|-------------|-----------------|-----------|---------|
| # units/1 students | Description | cost/1 students | Committee | Provost |

| | all-weather metric paper for documentation of crime | | |
|----|--|----------|--|
| 1. | scenes/human remains | \$ 30.30 | |
| 2. | large metal scoops | \$ 34.00 | |
| 3. | compass | \$ 42.00 | |
| 4. | metric triangle rulers | \$ 30.00 | |
| 5. | plastic chopsticks for digging | \$ 26.00 | |
| 6. | Screens, screws, and wood for archaeological sifting screens | \$ 30.00 | |
| 7. | large plastic spoons | \$ 28.00 | |
| | Total: | \$220.30 | |
| | per 1 student | \$220.30 | |

BSC 5408L COS-BIOL 3(0,9)

Advanced Biology Laboratory Techniques: PR: BS degree, C.I. This course will emphasize those biological techniques and resources necessary for students about to begin thesis research. Individual and small group instruction in current laboratory techniques, literature searches, and hands-on practice of techniques will be stressed. May not be repeated for credit. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

Program would like to remove this fee

Each item below is per 1 students

| | cost/1 students | Committee | Provost |
|---------------|-----------------|----------------|----------------|
| Total: | \$ 0.00 | | |
| per 1 student | \$ 0.00 | | |
| | | Total: \$ 0.00 | Total: \$ 0.00 |

BSC 5824 COS-BIOL 4(4,0)

Biogeography: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Study of geographic variation in nature, ranging from past to present and from genes to ecosystems. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

program would like to remove this fee.

| | | Total: | \$ 0.00 | | | |
|--------------------|-------------|--------|-----------------|-----------|---------|---|
| # units/1 students | Description | | cost/1 students | Committee | Provost | _ |
| | | | | Den | ied | |

per 1 student

\$ 0.00

ENY 5006C COS-BIOL 4(2,6)

Entomology: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Morphology, physiology, ontogeny, behavior, ecology and population biology of insects. *Occasional*.

Materials & Supply Fee proposed revision: from \$40.00 to \$40.00

Brief description of fee use:

Fees used to purchase items used during lab.

Each item below is per 1 students

| | | | | | Den | ied |
|----|--------------------|----------------|---------------|-----------------|-----------|---------|
| | # units/1 students | Description | | cost/1 students | Committee | Provost |
| 1. | 1 | aerial net | | \$ 15.00 | | |
| 2. | 1 | killing jar | | \$ 3.00 | | |
| 3. | 1 | assorted vials | | \$ 2.00 | | |
| 4. | 1 | pinning block | | \$ 5.00 | | |
| 5. | 1 | collection box | | \$ 15.00 | | |
| | | | Total: | \$ 40.00 | | |
| | | | per 1 student | \$ 40.00 | | |
| | | | | | | |

PCB 5045 COS-BIOL 4(4,0)

Conservation Biology: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Scientific basis of conservation; conservation of ecosystems, populations, exploited species, and endangered species. *Fall.*

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

program would like to remove fee.

Each item below is per 1 students

| | | | Deni | ied |
|--------------------|-------------|-----------------|-----------|---------|
| # units/1 students | Description | cost/1 students | Committee | Provost |

Total: \$ 0.00

per 1 student \$ 0.00

PCB 5435C COS-BIOL 4(2,6)

Marine Ecology of Florida: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Survey of experimental methods used in the study of marine communities in central and southern Florida, combining field manipulation and readings from primary literature. *Odd Spring*.

Materials & Supply Fee proposed revision: from \$45.00 to \$0.00

Brief description of fee use:

program would like to remove this fee.

Each item below is per 1 students

| | | | | Den | ied |
|--------------------|-------------|---------------|-----------------|-----------|---------|
| # units/1 students | Description | | cost/1 students | Committee | Provost |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |
| | | | | | |

PCB 5485 COS-BIOL 3(3,0)

Models in Ecology: PCB 3044, MAC 2311C (or equivalent), and graduate status or senior standing or C.I. A survey of how simulation models are applied to ecological questions of both a theoretical and managerial nature. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

program would like to remove this fee.

Each item below is per 1 students

| | | | | Den | iea |
|--------------------|-------------|---------------|-----------------|-----------|--------|
| # units/1 students | Description | | cost/1 students | Committee | Provos |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |

PCB 5665C COS-BIOL 4(3,2)

Human Genetics: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Human Genetics provides a theoretical framework for understanding the biology of the human species. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

Department would like to remove fee.

Each item below is per 1 students

| | cost/1 students | Committee | Provost |
|--------------|------------------------|-----------|---------|
| Total: | \$ 0.00 | | |
| er 1 student | \$ 0.00 | | |
| | Total: er 1 student | · | • |

PCB 6107C COS-BIOL 4(3,2)

Advanced Cell Biology: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Review of selected topics in cell biology with emphasis on current research in areas of membrane structure, protein targeting, cytoskeleton, signalling and cell cycle. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

Program would like to remove current fee.

Each item below is per 1 students

| | | | | Denied | |
|--------------------|-------------|---------------|-----------------|-----------|--------|
| # units/1 students | Description | | cost/1 students | Committee | Provos |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |

PCB 6256C COS-BIOL 4(3,2)

Advanced Developmental Biology: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Lecture and literature review of emerging areas in plant and animal developmental biology. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

Program would like to remove current fee.

Each item below is per 1 students

units/1 students Description Cost/1 students Committee Provost

Total:

\$ 0.00

per 1 student

\$ 0.00

PCB 6328C COS-BIOL 4(3,2)

Landscape Ecology: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Influence of spatial heterogeneity on ecological processes. Emphasizes quantitative methods (e.g., GIS, remote sensing and modeling) to characterize landscape patterns and dynamics. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

program would like to remove fee.

Each item below is per 1 students

Denied

units/1 students Description cost/1 students Committee Provost

Total: \$ 0.00

per 1 student \$ 0.00

PCB 6365 COS-BIOL 3(3,0)

Environmental Physiology: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. The effects of major environmental factors on the physiology of plants and animals. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

program would like to remove fee.

Each item below is per 1 students

| | | | | Den | ied |
|--------------------|-------------|---------------|-----------------|-----------|---------|
| # units/1 students | Description | | cost/1 students | Committee | Provost |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |

PCB 6556 COS-BIOL 3(3,0)

Conservation Genetics: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Applications of genetic models to the understanding and conservation of animal and plant populations. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

program would like to remove fee.

Each item below is per 1 students

| # units/1 students | | | | Den | ied |
|--------------------|-------------|---------------|-----------------|-----------|---------|
| | Description | | cost/1 students | Committee | Provost |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |

PCB 6585C COS-BIOL 4(3,2)

Advanced Genetics: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Recent advances in genetics, stressing molecular and developmental trends. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

Program would like to remove current fee.

Each item below is per 1 students

| Description | | cost/1 students | Committee | Provost |
|-------------|---------------|-----------------|----------------|----------------|
| | Total: | \$ 0.00 | | |
| | per 1 student | \$ 0.00 | | |
| | Description | Total: | Total: \$ 0.00 | Total: \$ 0.00 |

PCB 6675C COS-BIOL 4(3,2)

Evolutionary Biology: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Review of modern concepts and theories in evolutionary biology with emphasis on readings in the primary literature. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

program wants to remove fee.

Each item below is per 1 students

Denied

units/1 students Description cost/1 students Committee Provost

Total:

\$ 0.00

per 1 student

\$ 0.00

PCB 6727 COS-BIOL 3(3,0)

Comparative Animal Physiology: PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Comparison of structural and functional adaptations of animal organ systems. Emphasis upon maximization of fitness under given environmental conditions. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

program would like to remove fee.

Each item below is per 1 students

| | cost/1 students | Committee | Provost |
|---------------|-----------------|----------------|----------------|
| Total: | \$ 0.00 | | |
| per 1 student | \$ 0.00 | | |
| | | Total: \$ 0.00 | Total: \$ 0.00 |

CHM 5451C COS-CHEM 3(1,5)

Techniques in Polymer Science: PR: CHM 2211 and CHM 3410, graduate status or senior standing, or C.I. A laboratory and lecture course designed to introduce students to the major polymerization mechanisms along with polymer characterization and processing methods using modern instrumentation. *Odd Spring*.

Materials & Supply Fee proposed revision: from \$45.00 to \$62.69

Brief description of fee use:

Program would like to continue current fee. This advanced lab course requires the consumption of many specialty chemicals and supplies. These specialty chemicals cost a lot. The current lab fee does not even cover half the cost incurred for this course.

Each item below is per 12 students

| | | | | Den | ied |
|----|---------------------|-------------------------------|------------------|-----------|---------|
| | # units/12 students | Description | cost/12 students | Committee | Provost |
| 1. | 1 per student | Benzoin 98% 5G, AC 105510050 | \$ 11.07 | | |
| 2. | 1 lb B274 | Benzoyl Peroxide R | \$ 36.69 | | |
| 3. | 1 AC127140010 | Methyl Methacrylate 99% 1 LT | \$ 33.95 | | |
| 4. | 1 19-822-675 | 20X100X.006 POLY BLK SHEETING | \$ 36.30 | | |

| 5. | 1 AC164252500 | ACRYLIC ACID, 99% 50 ML | \$ 13.69 | | |
|------------------|------------------|---|----------------------|---|---|
| 6. | ICN19004980, 1 | T-BUTYL HYDROPEROXIDE 100ML | \$ 12.55 | | |
| 7. | 1 AC197275000 | molecular sieves, 4A, 500 GR | \$ 27.31 | | |
| 8. | 2 S159-500 | silicon oil 500 ml | \$ 67.80 | | |
| 9. | 1 04507 | Strene Monomer Cert 1L | \$ 17.97 | | |
| | 2 pk of 10: | | | | |
| 10. | FB57879 | STP FB TURNOVER 37 RED 10/PK | \$ 7.54 | | |
| 11. | AC201530010 | AMMONIUM PERSULFATE, 90% 1 KG | \$ 25.75 | П | _ |
| 12. | AC126190010 | METHYL ACRYLATE99% 1 LT | \$ 16.81 | | |
| | S271-1 | sodium chloride cert acs 1 kg | \$ 13.93 | | |
| 13. | 327 1-1 | SODIUM LAURYL SULFATE 100G | ψ 13.33 | | |
| 14. | S799941 | PWD | \$ 11.92 | | |
| 15. | AC149670010 | 2 BUTANONE 99+% 1 liter (regulated) | \$ 21.20 | | |
| | | N-BUTYLLITHIUM, 2.5 M SOL 100 | | | |
| 16. | AC213351000 | ML | \$ 22.30 | | |
| 17. | 12: 09-311-7 | STIRRIING MAGNET IN GLASS | \$ 196.68 | | |
| 18. | S80031 | hexamethylene diamine 100 g | \$ 11.12 | | |
| 19. | 1: A92-500 | PHENOL REAGENT ACS 500 G | \$ 33.24 | | |
| | | SPEC JAR FORCEP 300 MM | | | |
| 20. | 4: 10-316C | CHROM | \$ 50.04 | | |
| 21. | 1: P368-500 | PYRIDINE CERTIFIED ACS 500 ML (regulated) | \$ 27.75 | | |
| 22. | 1: S75197 | SEBOCOYL CHLORIDE 25 ML | \$ 21.32 | | _ |
| 23. | 1:AC138015000 | TETRACHLOROETHYLENE 99% | \$ 11.40 | | |
| 24. | | isophthaloyl dichlorida, 100 gr | \$ 13.45 | | |
| 2 5 . | | Dis alum spt cult/wegh 100/pk | \$ 10.45 | | |
| 25. | 1 F.N. 22-112131 | Total: | | | |
| | | | \$752.23 \$ 62.60 | | |
| | | per 1 student | \$ 62.69 | | |

CHS 6535L COS-CHEM 3(1,6)

Forensic Analysis of Biological Materials: PR: CHS 6535, PCB 4524, C.I. and satisfaction of biology requirements. A laboratory course for forensic molecular biologists covering the procedures for recovering and typing DNA from evidentiary materials. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Program would like to remove fee.

Each item below is per 1 students

| | | | | Den | iea |
|------------------------|-------------|---------------|-----------------|-----------|---------|
| # units/1 students | Description | | cost/1 students | Committee | Provost |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |
| | | | | | |

PHY 5817L COS-PHYS 1(0,3)

Building Physics Apparatus: PR: Graduate standing or senior standing and C.I. Hands-on shop course. Focus will be machine shop practice with possible extension to printed circuit boards and glass work.

Materials & Supply Fee proposed revision: from \$45.00 to \$45.00

Brief description of fee use:

Program would like to continue current fee. Each student must have his or her own measuring instruments, expendable cutting tools, and safety equipment. Items suitable for precision machine shop work are not available in hardware stores, and are best chosen and purchased by the instructor. Students will keep these items after completion of the course.

Each item below is per 1 students

| | | | | | Den | ied |
|----|--------------------|---------------------|---------------|-----------------|-----------|---------|
| | # units/1 students | Description | | cost/1 students | Committee | Provost |
| 1. | | Shop safety glasses | | \$ 10.00 | | |
| 2. | | End mills | | \$ 10.00 | | |
| 3. | | Vernier calipers | | \$ 8.00 | | |
| 4. | | Edge finder | | \$ 10.00 | | |
| 5. | | Center drill | | \$ 7.00 | | |
| | | | Total: | \$ 45.00 | | |
| | | | per 1 student | \$ 45.00 | | |
| | | | | | | |

CLP 6195C COS-PSYCH 3(2,2)

Introduction to Psychotherapy: PR: Graduate admission and C.I. Counseling theory with experimental lab component including practice in specific techniques in counseling. *Odd Spring*.

Materials & Supply Fee proposed revision: from \$15.00 to \$10.00

. . .

Each student will receive a 16 GB SDHC memory card to be consumed during the semester while videotaping role-played counseling sessions.

Each item below is per 15 students

| | | | | Den | ied |
|----|---------------------|-------------------------|------------------|-----------|---------|
| | # units/15 students | Description | cost/15 students | Committee | Provost |
| | | 16 GB SDHC Memory Cards | | | |
| 1. | 15 | (SanDisk or simlar) | \$ 150.00 | | |
| | | Total: | \$150.00 | | |
| | | per 1 student | \$ 10.00 | | |
| | | | | | |

CLP 6441C COS-PSYCH 3(2,2)

Individual Psychological Assessment I: PR: Graduate admission and C.I. Theory and techniques of psychological assessment with emphasis on intake interviewing, cognitive and personality assessment, and report writing. *Fall.*

Materials & Supply Fee proposed revision: from \$20.00 to \$19.54

Brief description of fee use:

Students will use the blank forms associated with the tests attached to gain experience in assessing clients' risk for externalizing behavior disorders. Department would like to round fee to \$20.

Each item below is per 1 students

| | | | | Den | ied |
|----|--------------------|--|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | | Beck Depression Inventory-II (BDI-II) Manual Scoring Record Form | \$ 2.20 | | |
| 2. | | Beck Anxiety Inventory (BAI) Manual Scoring Record Form | \$ 2.20 | | |
| 3. | | Beck Suicide Scale (BSS) Manual Scoring Record Form | \$ 2.20 | | |
| 4. | | Beck Hopelessness Inventory (BHS) Manual Scoring Record Form | \$ 2.20 | | |
| 5. | | SCL-90-R Manual Scoring Answer Sheet (\$1.28 x 2 per student) | \$ 2.56 | | |
| 6. | | SCL-90-R Manual Scoring Profile Forms, Nonpatient Adolescent | \$ 0.59 | | |
| 7. | | SCL-90-R Manual Scoring Profile Forms, Nonpatient Adult | \$ 0.59 | | |

| | per 1 student | \$ 19.54 | |
|-----|---|----------|--|
| | Total: | \$ 19.54 | |
| 18. | YSR 11-18 DSM-5 Handscoring Profile | \$ 0.50 | |
| 17. | YSR 11-18 Handscoring Profile | \$ 0.50 | |
| 16. | Youth Self-Report, ages 11-18 (YSR) (\$0.50 x 2 per student) | \$ 1.00 | |
| 15. | TRF 6-18 DSM-5 Handscoring Profile | \$ 0.50 | |
| 14. | TRF 6-18 Girls Handscoring Profile | \$ 0.50 | |
| 13. | TRF 6-18 Boys Handscoring Profile | \$ 0.50 | |
| 12. | Teacher's Report Form, ages 6-18 (TRF) (\$0.50 x 2 per student) | \$ 1.00 | |
| 11. | CBCL 6-18 DSM-5 Handscoring Profile | \$ 0.50 | |
| 10. | CBCL 6-18 Girls Handscoring Profile | \$ 0.50 | |
| 9. | CBCL 6-18 Boys Handscoring Profile | \$ 0.50 | |
| 8. | Child Behavior Checklist, ages 6-18 (CBCL) (\$0.50 x 2 per student) | \$ 1.00 | |

CLP 6449C COS-PSYCH 3(2,1)

Career and Lifestyle Assessment: PR: CLP 6441C or C.I. Application and theory of obtaining, integrating, and utilizing career, vocational, and lifestyle assessment in clinical settings such as rehabilitation centers, mental health centers, and hospitals. *Spring*.

Materials & Supply Fee proposed revision: from \$30.00 to \$31.43

Brief description of fee use:

Department would like to continue current fee. This is an assessment course that requires students to use copyrighted forms, worksheets, and materials that are itemized below.

Each item below is per 1 students

| | | | | Den | ied |
|----|--------------------|--|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 45 | WJ III Tests of Achievement, Form A Test Records - 2/student | \$ 6.56 | | |
| 2. | 45 | CAI-Enhanced Q Local Interpretive Report | \$ 9.65 | | |
| 3. | 45 | ABAS-II Adult Forms (\$2.72 x 2 administrations per student) | \$ 5.44 | | |

| | | per 1 student | \$ 31.43 | |
|----|----|---|----------|--|
| | | Total: | \$ 31.43 | |
| 6. | 45 | WRAT - 4 Blue Test/Response Forms | \$ 1.72 | |
| 5. | 15 | Quality of Life Inventory answer and worksheets | \$ 2.14 | |
| 4. | 45 | (\$2.96 - twice/student) | \$ 5.92 | |

CLP 6459C COS-PSYCH 3(2,2)

Human Sexuality, Marriage, and Sex Therapies: PR: Graduate admission, and C.I. Human sexuality, theory and practice of specific techniques of marriage and sex therapy. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

Program would like to remove current fee.

Each item below is per 1 students

| | | | | Denied | |
|--------------------|-------------|---------------|-----------------|-----------|---------|
| # units/1 students | Description | | cost/1 students | Committee | Provost |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |
| | | | | | |

CLP 6460C COS-PSYCH 3(2,2)

Introduction to Child, Adolescent, and Family Therapies: PR: Graduate admission, and C.I. Theories and practices of child, adolescent and family therapies. Includes practice in specific techniques. *Occasional*.

Materials & Supply Fee proposed revision: from \$15.00 to \$17.88

Brief description of fee use:

Students will use the blank forms associated with the tests below to gain experience in assessing clients' risk for externalizing behavior disorders.

Each item below is per 15 students

| | | | | Denied | |
|----|---------------------|--|------------------|-----------|---------|
| | # units/15 students | Description | cost/15 students | Committee | Provost |
| 1. | 45 | Suicidal Ideation Questionnaire Answer Sheets | \$ 104.40 | | |
| 2. | 45 | Suicidal Ideation Questionnaire Answer Sheets (Junior High Version) | \$ 104.40 | | |

| 45 | Risk in Youth Answer Sheets | \$ 59.40 | | |
|----|-----------------------------|----------|-----------------|-----------------|
| | Total: | \$268.20 | | |
| | per 1 student | \$ 17.88 | | |
| 7 | .5 | Total: | Total: \$268.20 | Total: \$268.20 |

CLP 7943C COS-PSYCH VAR(VAR,VAR)

Clinical Practicum: PR: Acceptance to Clinical Psychology Ph.D. program or C.I. Clinical activities performed in an approved university or community setting under faculty/staff supervision. This course is intended for the Ph.D. in Clinical Psychology, in certain instances graduate students in other programs may enroll. Graded S/U. May be used in the degree program up to a maximum of 12 credits. *Fall, Spring, Summer.*

Materials & Supply Fee proposed revision: from \$15.00 to \$15.00

Brief description of fee use:

The program would like to continue the current fee as is.

Each item below is per 1 students

| | | | | Den | ied |
|----|--------------------|---|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 1 | WISC Intelligence Scale forms (child) | \$ 2.00 | | |
| 2. | 1 | CBCL (Child Behavior Checklist) rating forms | \$ 2.00 | | |
| 3. | 1 | Child Depression Inventory Forms | \$ 1.00 | | |
| 4. | 1 | Child Fear Survey Forms | \$ 1.00 | | |
| 5. | 1 | WAIS Intelligence Scale forms (adults) | \$ 2.00 | | |
| 6. | 1 | MMPI forms (personality inventory) | \$ 2.00 | | |
| 7. | 1 | TRF (teacher rating) forms | \$ 2.00 | | |
| 8. | 1 | Wechsler Child Memory Scale forms | \$ 1.00 | | |
| 9. | 1 | Prorated cost for new test kits (\$400-800) renewed 3-4 years | \$ 2.00 | | |
| | | Total: | \$ 15.00 | | |
| | | per 1 student | \$ 15.00 | | |
| | | | | | |

CCE 5220 ECS-CECE 3(3,0)

Sustainable Infrastructure Systems: STA 3032 Introduce the principles of sustainability as they relate to the built environment and infrastructure systems; sustainability metrics; life cycle assessment; resilience; green building principles. *Odd Spring*.

Materials & Supply Fee proposed revision: from \$0.00 to \$0.00

Brief description of fee use:

Each item below is per 0 students

| | | | | Den | ied |
|--------------------|-------------|---------------|-----------------|-----------|---------|
| # units/0 students | Description | | cost/0 students | Committee | Provost |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |

EEL 5437C ECS-ECE 4(3,3)

Microwave Engineering: PR: EEL 3470 or C.I. Transmission line theory, Smith charts, S-parameters, simple impedance matching circuits, wave guides, resonators, basic microwave measurements. *Fall.*

Materials & Supply Fee proposed revision: from \$38.81 to \$40.00

Brief description of fee use:

This fee covers the expendable, consumable, and disposable items that are utilized by this course.

Each item below is per 1 students

| | | | | Den | ied |
|----|--------------------|---|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 8 | RF connectors | \$ 32.00 | | |
| 2. | 1 | Solder, Soldering Iron Tip, Solder Wick, Hardware | \$ 2.00 | | |
| 3. | 1 | TRF Foil & Toner Transfer Paper | \$ 4.00 | | |
| 4. | 1 | Etchant | \$ 2.00 | | |
| | | Total: | \$ 40.00 | | |
| | | per 1 student | \$ 40.00 | | |
| | | | | | |

EML 5532C ECS-MECH/AERO 3(2,3)

Computer-Aided Design for Manufacture: PR: EGN 4535C. Builds on introductory material covered in EML 4535C. Topics include computer modeling for the synthesis, simulation, design and manufacture of mechanical, thermal, and aerospace systems. *Occasional.*

Materials & Supply Fee proposed revision: from \$15.00 to \$0.00

Brief description of fee use:

The department no longer expects a need for a fee on this course.

| | | | | Den | ied |
|--------------------|-------------|---------------|-----------------|-----------|---------|
| # units/1 students | Description | | cost/1 students | Committee | Provost |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |
| | | | | | |
| | | | | | |

SPS 6125 ED-CFCS 3(3,0)

Preschool Psychoeducational Assessment: PR: Graduate standing and C.I. Analysis of test theory and practice in administration, scoring, and interpretation of instruments assessing cognitive, visual-motor ability and adaptive behavior with preschool children. *Spring*.

Materials & Supply Fee proposed revision: from \$42.00 to \$41.64

Brief description of fee use:

Fee is to cover the cost of expendable and consumable protocols that are used one time during this assessment course. The protocols are beyond the normal materials and supplies used in a classroom and are similar to disposable gloves, alcohol pads, and tongue blades all of which are only used one time and are then rendered useless.

Each item below is per 1 students

| | | | | Den | ied |
|----|--------------------|---|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 4 | Eight Battelle Developmental Inventory II Workbooks 2.91 | \$ 23.28 | | |
| 2. | 4 | Battelle Developmental Inventory II Screener forms 1.68 | \$ 6.72 | | |
| 3. | 4 | Battelle Development Inventory II Scoring Forms 2.91 | \$ 11.64 | | |
| | | Total: | \$ 41.64 | | |
| | | per 1 student | \$ 41.64 | | |
| | | | | | |

SPS 6194 ED-CFCS 3(3,0)

Assessment of Special Needs: PR: SPS 6191, SPS 6192. Measurement of social, behavioral, and emotional functioning in children and adolescents. *Occasional*.

Materials & Supply Fee proposed revision: from \$45.00 to \$51.00

Fee is to cover the cost of expendable and consumable protocols that are used one time during this assessment course. The protocols are beyond the normal materials and supplies used in a classroom and are similar to disposable gloves, alcohol pads, and tongue blades all of which are only used one time and are then rendered useless.

Each item below is per 1 students

| | | | | Den | ied |
|----|--------------------|----------------------------------|-----------------|-----------|---------|
| | # units/1 students | Description | cost/1 students | Committee | Provost |
| 1. | 4 | Vineland Survey Forms 2.58 each | \$ 10.32 | | |
| 2. | 4 | Vinelad Parent Forms 1.13 each | \$ 4.52 | | |
| 3. | 4 | Classroom Rating Forms 2.54 each | \$ 10.16 | | |
| 4. | 4 | DAS II School Age Record Forms | \$ 13.00 | | |
| 5. | 4 | DAS II Pre-School Record Forms | \$ 13.00 | | |
| | | Total: | \$ 51.00 | | |
| | | per 1 student | \$ 51.00 | | |
| | | | | | |

ARE 5359 ED-TL&L 4(4,0)

Teaching Art K-12: PR: Admission to MA in Art Education, graduate standing or C.I. Transition from university art practices to public school teaching of art. Organize, design, and analyze art learning for students K-12. *Summer*.

Materials & Supply Fee proposed revision: from \$5.00 to \$5.00

Brief description of fee use:

Each item below is per 1 students

| | | | | | Denied | | |
|----|--------------------|-------------------|---------------|-----------------|-----------|---------|--|
| | # units/1 students | Description | | cost/1 students | Committee | Provost | |
| 1. | 1 | Arts and supplies | | \$ 5.00 | | | |
| | | | Total: | \$ 5.00 | | | |
| | | | per 1 student | \$ 5.00 | | | |
| | | | | | | | |

ARE 5454 ED-TL&L 3(3,0)

Studio Experiences in Art Education: PR: Graduate admission or C.I. Materials available for instruction in public schools will be explored in depth in relation to their appropriateness and productive qualities. May be repeated for credit. *Spring, Summer.*

Materials & Supply Fee proposed revision: from \$5.00 to \$10.00

In all art classes, the students receive high quality paper, various graphic and drawing materials, various paints, and ceramic materials from the Materials and Supplies fee.

Each item below is per 1 students

| | | | | | Den | ied |
|----|--------------------|----------------------|---------------|-----------------|-----------|---------|
| | # units/1 students | Description | | cost/1 students | Committee | Provost |
| 1. | 1 | Art and supplies fee | | \$ 10.00 | | |
| | | | Total: | \$ 10.00 | | |
| | | | per 1 student | \$ 10.00 | | |
| | | | | | | |

ARE 6195 ED-TL&L 3(2,1)

Teaching Art Appreciation with Interdisciplinary Strategies: PR: Graduate status and public school teaching experience. Focuses on the examination of art appreciation examples and concepts toward planning curriculum (interdisciplinary for the study of art history, criticism, and aesthetics). *Fall.*

Materials & Supply Fee proposed revision: from \$5.00 to \$5.00

Brief description of fee use:

Each item below is per 1 students

| | | | | | Den | iea |
|----|--------------------|-------------------|---------------|-----------------|-----------|---------|
| _ | # units/1 students | Description | | cost/1 students | Committee | Provost |
| 1. | 1 | Arts and supplies | | \$ 5.00 | | |
| | | | Total: | \$ 5.00 | | |
| | | | per 1 student | \$ 5.00 | | |
| | | | | | | |

ARE 6666 ED-TL&L 3(2,1)

Arts Advocacy: Graduate Standing or C.I. The study and development of plans to produce arts advocacy programs for the public school system. *Occasional*.

Materials & Supply Fee proposed revision: from \$5.00 to \$5.00

Brief description of fee use:

Each item below is per 1 students

| | | | | | Den | iea |
|----|--------------------|-------------------|--------|-----------------|-----------|---------|
| | # units/1 students | Description | | cost/1 students | Committee | Provost |
| 1. | 1 | Arts and supplies | | \$ 5.00 | | |
| | | | Total: | \$ 5.00 | | |

Daniad

SCE 7935 ED-TL&L 3(3,0)

Seminar--Professional Writing/Grants in Science Education: PR: Admission to the PhD in Education or C.I. The focus of the course is on scholarly writing and grant writing in science teaching, learning, assessment and relationships.

Materials & Supply Fee proposed revision: from \$35.00 to \$0.00

Brief description of fee use:

Each item below is per 1 students

| | | | | Den | ied |
|--------------------|-------------|---------------|-----------------|-----------|---------|
| # units/1 students | Description | | cost/1 students | Committee | Provost |
| | | Total: | \$ 0.00 | | |
| | | per 1 student | \$ 0.00 | | |

Aphasia and Related Disorders: PR: Admission to M.A. in Communication Sciences and Disorders or C.I. Evaluation and treatment of language disorders in adults with damage to the central nervous system, with an emphasis on etiology and differential diagnosis. *Fall, Spring.*

Materials & Supply Fee proposed revision: from \$30.00 to \$60.74

Brief description of fee use:

Each item below is per 35 students

| | | | | Den | ied |
|----|---------------------|---|------------------|-----------|---------|
| | # units/35 students | Description | cost/35 students | Committee | Provost |
| 1. | 2 | WAB-R Record Forms - Combo - Part 1 (Pkg of 20)and Part 2 (Pkg of 10) | \$ 130.00 | | |
| 2. | 2 | WAB-R Bedside Record Forms - Pkg of 25 | \$ 54.00 | | |
| 3. | 2 | BDAE - 3 Long Form Record Booklets - Pkg of 25 | \$ 74.00 | | |
| 4. | 2 | BDAE - 3 Short Form Record Booklets (Pkg of 25) | \$ 74.00 | | |
| 5. | 2 | BDAE-3 BNT Record Booklets (Pkg of 25) | \$ 74.00 | | |

| | | per 1 student | \$ 60.74 | |
|-----|---|--|-----------|--|
| | | Total: | \$2126.00 | |
| 13. | 1 | Comprehensive Aphasia Test/Protocols | \$ 270.00 | |
| 12. | 2 | RCBA-2 Profile/Summary Record Forms (25) | \$ 102.00 | |
| 11. | 2 | FLCI Score Form Sheets (25) | \$ 46.00 | |
| 10. | 2 | Psycholinguistic Assessments of Language Processing in Aphasia/Protocols | \$ 900.00 | |
| 9. | 2 | CADL-2 Patient Response Forms (25) | \$ 56.00 | |
| 8. | 2 | CADL-2 Examiner Record Booklets (25) | \$ 90.00 | |
| 7. | 2 | ADP Record Forms (25) | \$ 116.00 | |
| 6. | 2 | CLQT English Record Forms/Response Booklets (Pkg of 25 each) | \$ 140.00 | |

SPA 6417 HPA-COM SC&DIS 3(3,0)

Cognitive/Communicative Disorders: PR: SPA 6410 or C.I. Evaluation and treatment of right hemisphere dysfunctions, traumatic brain injury, and dementias, with special emphasis on memory, cognition, pragmatics and other issues affecting functional communication. *Spring*.

Materials & Supply Fee proposed revision: from \$38.00 to \$61.36

Brief description of fee use:

Each item below is per 35 students

| | | | | Den | ied |
|----|---------------------|--|------------------|-----------|---------|
| | # units/35 students | Description | cost/35 students | Committee | Provost |
| 1. | 2 | FLCI Score Form Sheets (25) | \$ 46.00 | | |
| 2. | 2 | ABCD Response Record Forms (25) | \$ 80.00 | | |
| 3. | 2 | ABCD Scoring and Interpretation Card | \$ 46.00 | | |
| 4. | 1 | Rivermead Behavioural Memory Test for Children (RBMT-C) | \$ 199.00 | | |
| 5. | 1 | Behavior Rating Inventory of Executive Function (KIT) | \$ 240.00 | | |
| 6. | 1 | MIRBI-2: The Mini Inventory of Right Brain Injury - Second Edition | \$ 183.00 | | |

| 7. | 2 | CLQT English Record Forms/Response booklets (Pkg of 25 each) | \$ 140.00 | |
|-----|---|---|-----------|---|
| • • | _ | , | Ψ | ш |
| 8. | 2 | WAB-R Record Forms - Combo - Part 1 (Pkg of 20) and Part 2 (Pkg of 10) | \$ 130.00 | |
| | | WAB-R Bedside Record Forms - Pkg | | |
| 9. | 2 | of 25 | \$ 54.00 | |
| 10. | 2 | RIPA-2 Record Forms (25) | \$ 124.00 | |
| | | RIPA-2 Ross Information Processing Assessment Second Edition Summary | | |
| 11. | 2 | Forms (25) | \$ 80.00 | |
| 12. | 2 | Forms: SCATBI Record Forms | \$ 210.50 | |
| | | Delis-Kaplan Executive Function | | |
| 13. | 1 | System | \$ 615.00 | |
| | | Total: | \$2147.50 | |
| | | per 1 student | \$ 61.36 | |
| | | | | |

Therapeutic Exercise Lab I: PR: Therapeutic Exercise I. Lab course emphasizing therapeutic exercise skills for the treatment of patients with musculoskeletal dysfunction. *Spring*.

Materials & Supply Fee proposed revision: from \$15.00 to \$19.43

Brief description of fee use:

This is a lab course emphasizing the therapeutic exercise skills for the treatment of patients with musculoskeletal dysfunction. Specifically, this course is an introduction to therapeutic exercise and evaluation skills. The course includes foundational concepts of therapeutic exercise, and theory related to range of motion, resistance, stretching, mobilization and implications for special populations. The utilization of scientific principles, problem-solving, and clinical observation will provide students with a thorough understanding of exercise principles used by physical therapists in the clinical setting. A variety of equipment is required for these therapeutic interventions.

Each item below is per 36 students

| | | | | Den | ied |
|----|---------------------|--|------------------|-----------|---------|
| | # units/36 students | Description | cost/36 students | Committee | Provost |
| 1. | 2 | Skinfold calipers: Sammons #260961 (\$181.75 each) | \$ 363.50 | | |
| 2. | 10 | Mobilization belt: Sammons #081628064 (\$17.95 each) | \$ 179.50 | | |
| 3. | 5 | Stopwatches: Sammons #7528 (\$31.30 each) | \$ 156.50 | | |

Total: \$699.50

per 1 student \$ 19.43

Therapeutic Exercise II Lab: PR: Therapeutic Exercise I and Lab; CR: Therapeutic Exercise II. Lab course emphasizing the use of the various therapeutic exercise modalities. *Fall*.

Materials & Supply Fee proposed revision: from \$15.00 to \$15.47

Brief description of fee use:

This is a lab course covering therapeutic exercise and evaluation skills for musculoskeletal dysfunctions. The course includes foundational concepts of therapeutic exercise, and theory related to range of motion, resistance, stretching, mobilization and implications for special populations. The utilization of scientific principles, problem-solving, and clinical observation will provide students with a thorough understanding of exercise principles used by physical therapists in the clinical setting. Upon conclusion of this course the student will gain sufficient knowledge of therapeutic exercise to perform a detailed and thorough treatment of physical dysfunction throughout the compendium of care. In order to execute these treatment inteventions, a variety of equipment is required.

Each item below is per 36 students

| | | | | Den | ied |
|----|---------------------|---|------------------|-----------|---------|
| | # units/36 students | Description | cost/36 students | Committee | Provost |
| 1. | 1 | Theraband - Green: Sammons #552215 | \$ 154.55 | | |
| 2. | 1 | Theraband - Red: Sammons #552214 | \$ 146.45 | | |
| 3. | 2 | Therapy Putty Medium Soft - Red: Sammons #507199 (\$3.90 each) | \$ 7.80 | | |
| 4. | 2 | Therapy Putty Medium - Green: Sammons #5072 (\$3.90 each) | \$ 7.80 | | |
| 5. | 2 | Therapy Putty Firm - Blue: Sammons #5073 (\$3.90 each) | \$ 7.80 | | |
| 6. | 3 | Theraband Resistance Loops - Green: Sammons #969203 (\$8.05 each) | \$ 24.15 | | |
| 7. | 3 | Theraband Resistance Loops - Blue: Sammons #969204 (\$8.05 each) | \$ 24.15 | | |
| 8. | 3 | Theraband Resistance Loops - Red: Sammons #969202 (\$8.05 each) | \$ 24.15 | | |
| 9. | 1 | Theraband - Blue: Sammons #552216 | \$ 160.00 | | |
| | | Total: | \$556.85 | | |
| | | per 1 student | \$ 15.47 | | |
| | | | | | |

Cardiopulmonary Physical Therapy: PR: Admission to DPT program. Examinations and interventions for the management of chronic and acute cardiopulmonary problems. Teaching patient strategies for preventing/managing dysfunction. *Fall*.

Materials & Supply Fee proposed revision: from \$15.00 to \$14.98

Brief description of fee use:

This course consists of classroom and laboratory experiences and is provided by respiratory care and physical therapy practitioners. This course provides the student with an opportunity to become familiar with the clinical skills a physical therapy practitioner might utilize in order to manage patients afflicted with atypical cardiopulmonary psychophysiology. In the laboratory setting, students learn to interpret electrocardiograph readings and practice various forms of suction for the cardiopulmonary compromised patient. Practical skills are performed as they would be in the clinical setting.

Each item below is per 36 students

| | | | | Den | ied |
|----|---------------------|--|------------------|-----------|---------|
| | # units/36 students | Description | cost/36 students | Committee | Provost |
| 1. | 2 | Alcohol pre wipes: Simmons #5683-26(\$6.55 each) | \$ 13.10 | | |
| 2. | 4 | Disposable gloves: Simmons #5243-02 (\$27.15 each) | \$ 108.60 | | |
| 3. | 1 | Linen Service - \$82.50 per month x 4 months | \$ 330.00 | | |
| 4. | 50 | Suction practice kits - Pocket Nurse #07-26-4893N (\$1.75) | \$ 87.50 | | |
| | | Total: | \$539.20 | | |
| | | per 1 student | \$ 14.98 | | |
| | | | | | |

Advanced Orthopedic Physical Therapy: PR: Orthopedic Physical Therapy; CR: Advanced Orthopedic Physical Therapy Lab. Specific rehabilitative protocols regarding particular orthopedic injuries and illnesses are presented. Focus on the previous course work in therapeutic modalities, anatomy, physiology, and therapeutic exercises incorporated. *Spring*.

Materials & Supply Fee proposed revision: from \$25.00 to \$25.88

This is a lab course covering advanced orthopedic treatment and evaluation skills for musculoskeletal dysfunctions. An introduction will be given of the most common diagnosis treated by physical therapists with related impairments and functional limitations. The student will learn basic examination principles, problem list development and diagnosis. Furthermore the students will learn how to develop goals and determine subsequent intervention. Treatment will include therapeutic exercise, modalities and use of manipulation both thrust and non-thrust. Upon the conclusion of this course, the student should poses the basic skill set in examining and treating common musculoskeletal dysfunction related to the spine.

Each item below is per 36 students

| | | | | Den | ied |
|----|---------------------|--|------------------|-----------|---------|
| | # units/36 students | Description | cost/36 students | Committee | Provost |
| 1. | 2 | Digital Readout Stopwatch - Patterson # 7528 (\$31.30/each) | \$ 62.60 | | |
| 2. | 1 | Vertebral Column - Patterson # A783-12-7 (\$176.75) | \$ 176.75 | | |
| 3. | 2 | Baseline Bubble Inclinometer 2 pack - Patterson 0815-47-165 (\$153.50) | \$ 307.00 | | |
| 4. | 1 | Safeskin Powder-Free Purple Nitrile Exam Gloves (Medium) Patterson - 0815-06-468 | \$ 32.70 | | |
| 5. | 1 | Safeskin Powder Free Purple Nitrile Exam Gloves (Large) Patterson 0815-06-476 | \$ 32.80 | | |
| 6. | 1 | Linens (\$20/week for 16 weeks) | \$ 320.00 | | |
| | | Total: | \$931.85 | | |
| | | per 1 student | \$ 25.88 | | |
| | | | | | |

PHT 6720 HPA-HP 1(1,0)

Wound Care and Professional Issues: PR: Admission to Physical Therapy program. Instruction in specialized care provided by physical therapists and in professional issues relevant to the contemporary practice. *Spring*.

Materials & Supply Fee proposed revision: from \$45.00 to \$44.83

Brief description of fee use:

This is a lab course including therapeutic assessment and intervention in patients with burns and wounds. This course prepares the student to be able to measure, select appropriate dressings, including pressure garments and rehabilitation, multiple methods of debridement and wound dressings.

Each item below is per 36 students

| | | | | DCII | icu |
|----|---------------------|---|------------------|-----------|---------|
| | # units/36 students | Description | cost/36 students | Committee | Provost |
| 1. | 4 | Sterile gloves # 5550-36 (66.50) | \$ 266.20 | | |
| 2. | 1 | Kerlix Rolls #7226-0 | \$ 298.95 | | |
| 3. | 2 | Cloth tape #9891-30 (\$24.20) | \$ 48.40 | | |
| 4. | 50 | Sterile debridement kits 0 9652-25 (\$11.10) | \$ 555.00 | | |
| 5. | 1 | Disposable measuring devises #5008-89 | \$ 28.25 | | |
| 6. | 3 | Sterile field cloth - 5546-13 (\$29.25) | \$ 87.75 | | |
| 7. | 100 | Disposable tap measure - Pocket Nurse # 02-68-1335N (0.15) | \$ 15.00 | | |
| 8. | 10 | Sterile gauze - 6666-8M (\$7.60) | \$ 76.00 | | |
| 9. | 2 | Compression tubular bandage - A938-31 (\$119.15) | \$ 238.30 | | |
| | | Total: | \$1613.85 | | |
| | | per 1 student | \$ 44.83 | | |
| | | | | | |

Physical Therapy Integration II: PR: PHT 7722C - Physical Therapy Integration I. This course focuses on examinations and interventions for the evaluation and treatment of the spine. Various theoretical models explored. Case studies are used for integration of clinical information. *Spring*.

Materials & Supply Fee proposed revision: from \$15.00 to \$14.32

Brief description of fee use:

Medical Lab and lecture course focusing on physical theatre for special populations. Lab component focuses on amputation management including wound care and compression, lymphedema management for the oncology population including measurement, compression and skin care.

Each item below is per 36 students

| | | | | Den | ied |
|----|---------------------|--|------------------|-----------|---------|
| | # units/36 students | Description | cost/36 students | Committee | Provost |
| 1. | 3 | Disposable Gloves: Simmons #5243-02 (\$27.15 each) | \$ 81.45 | | |
| 2. | 3 | Tubular bandage - 5597-83 (\$19.15) | \$ 57.45 | | |
| 3. | 2 | Mollelast - 5597-77-02 (\$16.15) | \$ 32.30 | | |
| 4. | 1 | Cellona padding - 0815-37-166 (\$117.15) | \$ 117.15 | | |

Denied

| 5. | 1 | Compression bandage - 5900-02 (\$227.20/box of 20) | \$ 227.20 | |
|----|---|---|-----------|--|
| | | Total: | \$515.55 | |
| | | per 1 student | \$ 14.32 | |
| | | | | |

PHT 7722C HPA-HP 2(2,1)

Physical Therapy Integration I: PR: Admission to DPT program. This course emphasizes the differential diagnostic skills required of a physical therapist when deciding if physical therapy care is appropriate. *Fall.*

Materials & Supply Fee proposed revision: from \$15.00 to \$14.52

Brief description of fee use:

This is a lab course introducing the students to complete patient management including but not limited to: evaluation, assessment, developing a plan of care, treatment options, discharge planning, documentation. Students build a dossier of treatments and evaluations for varying musculoskeletal, neuromuscular, injury, co-morbidities and complex patients. Students alternate between being the patient and the treating therapist. The students that are patients simulate the given condition and the PT treat them as they would in a clinical setting. Varying materials are required to simulate and maintain the clinical environment.

Each item below is per **36** students

| | | | | Den | ied |
|----|---------------------|--|------------------|-----------|---------|
| | # units/36 students | Description | cost/36 students | Committee | Provost |
| 1. | 1 | Linen Service - \$100 per month x 3 months | \$ 300.00 | | |
| 2. | 6 | Disposable gloves: Simmons #5243-02 (\$27.15 each) | \$ 162.90 | | |
| 3. | 2 | Alcohol prep wipes: Simmons #5483-26 (\$6.55 each) | \$ 13.10 | | |
| 4. | 4 | Dressing supplies: Simmons #5552-88 (\$11.65 each) | \$ 46.60 | | |
| | | Total: | \$522.60 | | |
| | | per 1 student | \$ 14.52 | | |
| | | | | | |