

University Curriculum Committee
March 15, 2012

The University Curriculum Committee met Thursday, March 15, 2012 at 3:00 p.m. in the Dean's Conference Room, Derryberry Hall.

Members present:

Dr. Melinda Anderson
Dr. Rita Barnes
Dr. Jeff Boles
Dr. Brad Cook
Ms. Edith Duvier
Dr. Kurt Eisen
Dr. Susan Elkins
Dr. Ahmed Elsayw
Dr. Billye Foster
Dr. Susan Gore
Dr. Bobby Hodum
Dr. David Huddleston
Dr. Sharon Huo
Dr. Steve Isbell

Dr. James Jordan-Wagner
Dr. Homer Kemp
Dr. Marketta Laurila
Dr. P.K. Rajan
Dr. James Raymondo
Dr. Joseph Rencis
Dr. Jeff Roberts
Dr. Stephen Robinson
Dr. Matt Smith
Dr. Mark Stephens
Dr. Doug Talbert
Ms. Janet Whiteaker
Ms. Jerri Winningham
Ms. Emily McDonald

Members absent:

Dr. Pedro Arce
Dr. Curtis Armstrong
Dr. Pat Bagley
Mr. Ward Doubet
Dr. Dan Fesler
Dr. Sherry Gaines
Ms. Julie Galloway
Dr. Mike Harrison
Dr. Darrell Hoy
Mr. Ted LaBar

Dr. Roy Loutzenheiser
LTC Bret Martin
Ms. Beth Rogers
Dr. Paul Semmes
Mr. Will Burns
Mr. Jacob Hoot
Ms. Kristen Jones
Ms. Mary Wade
Mr. Samuel Wright

Official Representatives:

Dr. Christy Killman for Dr. Barfield
Dr. Barry Elliott for Dr. Mills

Dr. Zac Wilcox for Dr. Stein

Guests:

Ms. Denise Burgess
Ms. Ann Marie Carrick

Dr. John Harris
Ms. Robin Riel

SUMMARY OF PROCEEDINGS

1. Approval of agenda as revised
2. Approval of February 16 minutes as corrected

3. Approval of new concentration – Recreation & Leisure from the Department of Exercise Science, Physical Education and Wellness
4. Math proposal tabled until next meeting (September 2012)
5. Approval of course changes from the Department of Chemistry
6. Approval of Pre-Professional curriculum changes from the Department of Chemistry
7. Approval of catalog changes for Pre-Professional Health Sciences from the Department of Chemistry
8. Approval of course change from the Learning Support Program
9. Approval of curriculum change from the Department of Computer Science
10. Approval of course and catalog changes from the department of Civil & Environmental Engineering
11. Approval of course change from the Department of Electrical & Computer Engineering
12. Approval of course addition, deletion, changes and curriculum changes from the Department of Manufacturing & Industrial Technology
13. Approval of curriculum changes from the Department of Curriculum & Instruction
14. Election of 2012-13 Chairperson
15. Other such matters: Approval of catalog revision from the Department of Music & Art

PROCEEDINGS

1. Approval of Agenda as Revised

Dr. Laurila requested that a proposal from the Department of Music and Art be added to the agenda under Other Such Matters.

Motion. Dr. Barnes moved to approve the agenda as revised. The motion was seconded by Mr. LaBar and carried.

2. Approval of February 16 Minutes as Corrected

Dr. Huddleston requested the following corrections to the course changes from the Department of Civil and Environmental Engineering:

Course Changes:

From:

ISE CEE 3110 Principles of Engineering Economy Lec. 2, Cr. 2

Prerequisite: MATH 1920. An abbreviated version of ISE 3100

To:

CEE 3710 Principles of Engineering Economy Lec. 2, Cr. 2

Prerequisite: MATH 1920. Concepts and techniques useful in the economic evaluation of engineering alternatives.

From:

ISE CEE3 210 Engineering Statistics Lec. 2, Cr. 2

Prerequisite: Math 1920 and junior standing. Engineering applications of probability, Hypothesis testing, and confidence intervals.

To:

CEE 3720 Engineering Statistics Lec. 2, Cr. 2

Prerequisite: Math 1920 and junior standing. Engineering applications of probability, Hypothesis testing, and confidence intervals.

Effective: Summer 2012

Motion. Dr. Talbert moved to approve the correction. The motion was seconded by Dr. Boles and carried.

3. Approval of New Concentration – Recreation and Leisure from the Department of Exercise Science, Physical Education and Wellness

In a memorandum dated February 14, 2012, approval was requested for the following:

New concentration proposal – Recreation & Leisure

Additions (1):

1. Add a new concentration, Recreation and Leisure, to the undergraduate EXPW program of study.

Effective Date: Fall, 2012

Name:
T#:
E-mail:
Advisor:

Bachelor of Science
Exercise Science, Phys. Ed & Wellness
EXPW Recreation & Leisure
(120 hrs)

Freshman Year

| 1 st Semester | | | | 2 nd Semester | | | |
|--------------------------------|-----------|-----|------------|--|------------|-----|------------|
| <u>Course</u> | Hrs. | Gr. | Sub. Filed | <u>Course</u> | Hrs. | Gr. | Sub. Filed |
| ENGL 1010 Writing I | 3 | | | ENGL 1020 Writing II | 3 | | |
| BIOL 1010 General Biology I | 4 | | | BIOL 1020 General Biology II | 4 | | |
| PSY 2010 General Psychology | 3 | | | MATH 1010 OR 1130 OR 1410 OR 1530 | 3 | | |
| EXPW 1021 Conn. to Exer. Sci. | 1 | | | EXPW 2110 Lifeguard Training & Water Safety Instructor | 3 | | |
| EXPW 1022 Intro/ Exer. Science | 2 | | | PHIL 1030 Intro to Philosophy Or HIST 1110/1120 Or HIST 1010/1020 Or THEA 1030 Or MUS 1030 Or ART 1030 | 3 | | |
| EXPW 2430 First Aid & CPR | 2 | | | | | | |
| Guided Elective | 1 | | | | | | |
| | 16 | | | | 16 | | |
| | | | | Comments: | GPA | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

****All EXPW majors are required to take a Fitness Test once every academic calendar year.**

Sophomore Year

| 1 st Semester | | | | 2 nd Semester | | | |
|--|------|-----|------------|---|------|-----|------------|
| <u>Course</u> | Hrs. | Gr. | Sub. Filed | <u>Course</u> | Hrs. | Gr. | Sub. Filed |
| BIOL 2350 Anat. & Phys. (F) | 4 | | | ENGL 2130 Or 2230 Or 2330 | 3 | | |
| HIST 2010 American History I | 3 | | | HIST 2020 American History II | 3 | | |
| EXPW 2300 Recreation Program Design & Management | 3 | | | EXPW 2320 Fundamentals of Outdoor Leadership/Adventure Skills | 3 | | |
| SPCH 2410 or PC 2500 | 3 | | | EXPW 2150 Human Sexuality | 3 | | |
| EXPW 2310 Inclusive | 3 | | | SOC 1010 Intro to Sociology | 3 | | |

| | | | | | | | |
|--|-----------|--|--|-----------------|-----------|--|--|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | 16 | | | Guided Elective | 1 | | |
| | | | | | | | |
| | | | | | 16 | | |
| | | | | | | | |

| | | | | | | | |
|----------------------------------|-------------|------------|--|---------------------------------|--|--|--|
| Extra or Elective Courses | Hrs. | Gr. | | | | | |
| | | | | Note: EXPW 4420 and 4440 | | | |
| | | | | require BIOL 2350 as a | | | |
| | | | | Prerequisite. | | | |

Junior Year

| 1st Semester | | | | 2nd Semester | | | |
|---|-------------|------------|-------------------|--|-------------|------------|-------------------|
| <u>Course</u> | Hrs. | Gr. | Sub. Filed | <u>Course</u> | Hrs. | Gr. | Sub. Filed |
| EXPW 3600 Wilderness & Environmental Ethics | 3 | | | EXPW 4560 Facility Planning and Management | 3 | | |
| EXPW 3410 Lifespan Motor Dev. | 3 | | | EXPW 3070 Lifetime Wellness & Leisure Activity | 3 | | |
| EXPW 3170 Motor Learning | 3 | | | EXPW 4420 Kinesiology | 3 | | |
| EXPW 3610 Recreation and Leisure for Older Adults | 3 | | | Guided Elective | 2 | | |
| EXPW 4440 Phys. of Exercise | 3 | | | Elective | 3 | | |
| Guided Elective | 1 | | | | | | |
| | | | | | | | |
| | | | | | 14 | | |
| | 16 | | | | | | |
| | | | | | | | |

Senior Year

| 1st Semester | | | | 2nd Semester | | | |
|--|-------------|------------|-------------------|---|-------------|------------|-------------------|
| <u>Course</u> | Hrs. | Gr. | Sub. Filed | <u>Course</u> | Hrs. | Gr. | Sub. Filed |
| EXPW 3620 Trends in Recreation & Leisure | 3 | | | EXPW 4812 Field Experience | 5 | | |
| EXPW 4730 Assessment & Evaluation in PE | 3 | | | EXPW 3650 Recreation in Community & Urbanized Societies | 3 | | |

| | | | | | | | |
|---|-----------|--|--|-----------------|-----------|--|--|
| | | | | Elective | 3 | | |
| EXPW 4100 Experiential Nature-based Outdoor Education & Recreation | 3 | | | Guided Elective | 2 | | |
| PHIL 1030 Intro to Philosophy Or HIST 1110/1120 Or HIST 1010/1020 Or THEA 1030 Or MUS 1030 Or ART 1030 | 3 | | | | | | |
| Guided Elective | 1 | | | | 13 | | |
| | | | | | | | |
| | 13 | | | | | | |

| Guided Elective Options | Hrs. | Gr. | PHED Guided Elective Options | Hrs. | Gr. |
|--|-------------|------------|--|-------------|------------|
| PHED 1230 Map Reading/ Orienteering | 1 | | PHED 1610 Challenge Course & Team Building Facilitation | 2 | |
| PHED 1520 Canoe Camping | 1 | | PHED 1620 Bouldering Movement & Technique | 1 | |
| PHED 1530 Backpacking Camping | 1 | | PHED 1630 Basic Caving | 1 | |
| PHED 1570 Bicycle Touring | 1 | | PHED 1640 Mountain Bike Skills | 1 | |
| PHED 1590 Backcountry Adventure 1 | 1 | | PHED 1650 Outdoor Water Skills | 1 | |
| PHED 1600 Backcountry Adventure 2 | 1 | | | | |

TTU Financial Impact of New Programs Calculator

Department Name: EXPW
 New Program Name: Recreation & Leisure
 Course Type: _____

| | <u>Year 1</u> | <u>Year 2</u> | <u>Year 3</u> | <u>Year 4</u> | <u>Year 5</u> |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Expenditure Projections | | | | | |
| A. One-time Expenditures | | | | | |
| New/Renovated Space | \$ - | \$ - | \$ - | \$ - | \$ - |
| Equipment | | 1,000 | 2,000 | 3,000 | 5,000 |
| Library | 2,000 | 1,000 | 1,000 | 1,000 | 500 |
| Consultants | 1,000 | 1,000 | | | |
| Travel | | | | | |
| Other | | | | | |
| Total One-time expenditures | \$ 3,000 | \$ 3,000 | \$ 3,000 | \$ 4,000 | \$ 5,500 |
| B. One-time Resources | | | | | |
| Department Reallocation | \$ 4,000 | | \$ - | \$ - | \$ - |
| One-time alloc from university | | | | | |
| Other (Specify) | | | | | |
| Total One-time resources | \$ 4,000 | \$ - | \$ - | \$ - | \$ - |

| | <u>Year 1</u> | <u>Year 2</u> | <u>Year 3</u> | <u>Year 4</u> | <u>Year 5</u> |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|
| C. Recurring Expenditures | | | | | |
| New personnel | | | | | |
| Administration | | | | | |
| Salary | \$ - | \$ - | \$ - | \$ - | \$ - |
| Benefits | | | | | |
| Sub-Total Administration | \$ - | \$ - | \$ - | \$ - | \$ - |
| Faculty | | | | | |
| Full-time faculty | \$ 35,000 | \$ 35,000 | \$ 35,000 | \$ 50,000 | \$ 50,000 |
| Benefits | 2,677 | 2,677 | 2,677 | 3,825 | 3,825 |
| Adjunct faculty | 7,000 | 7,000 | 7,000 | 14,000 | 14,000 |
| Benefits (7.65%) | | | | | |
| Sub-Total Faculty | \$ 44,677 | \$ 44,677 | \$ 44,677 | \$ 67,825 | \$ 67,825 |
| Support Staff | | | | | |
| Full-time salary | \$ - | \$ - | \$ - | \$ - | \$ - |
| Benefits | | | | | |
| Temporary/Student | | | | | |
| Benefits (7.65%) | | | | | |
| Sub-Total Support Staff | \$ - | \$ - | \$ - | \$ - | \$ - |

Operating

| | | | | | |
|-------------------------------------|------------------|------------------|------------------|------------------|------------------|
| Supplies | \$ 500 | \$ 1,000 | \$ 2,000 | \$ 2,000 | \$ 2,000 |
| Travel | 1,000 | 1,000 | 1,000 | 2,000 | 2,000 |
| Printing | | | | | |
| Equipment | | | | | |
| Other | | | | | |
| Sub-Total Operating | \$ 1,500 | \$ 2,000 | \$ 3,000 | \$ 4,000 | \$ 4,000 |
| Total Recurring Expenditures | \$ 46,177 | \$ 46,677 | \$ 47,677 | \$ 71,825 | \$ 71,825 |

Resource Requirements to Support Recurring Expenditures:

| | | | | | |
|------------------------------------|---|---|---|---|---|
| Unspecified Program: | | | | | |
| Minimum FTE for Breakeven | - | - | - | - | - |
| (Recurring Expenditures/FT Tuition | | | | | |

- # Both undergraduate and graduate will calculate; however, only consider the type of FTE appropriate for the proposed program.

Notes:

- * Do not include expenditures that will provided by the department/college from currently available resources. Only new FTE generated within the unit by this program should be counted toward the breakeven point. Do not count FTE diverted from other TTU programs - only FTEs new to TTU should be counted.

Course Additions:

The following courses are new courses requested for the Recreation and Leisure concentration in the Exercise Science Department. There are 14 new courses with a total credit hour value of 33.

| | | |
|------------|---|---|
| EXPW 2110* | Lifeguard Training & Water Safety Instructor | 3 |
| EXPW 2300* | Recreation Program Design & Management | 3 |
| EXPW 2310* | Inclusive Recreation & Leisure | 3 |
| EXPW 2320* | Fundamentals of Outdoor Leadership/Adventure Skills | 3 |
| EXPW 3600* | Wilderness & Environmental Ethics | 3 |
| EXPW 3610* | Recreation and Leisure for Older Adults | 3 |
| EXPW 3620* | Trends in Recreation & Leisure | 3 |
| EXPW 3650* | Recreation in Community & Urbanized Societies | 3 |
| EXPW 4100* | Experiential Nature-based Outdoor Education & Rec. | 3 |
| PHED 1610* | Challenge Course – Team Building Facilitation | 2 |
| PHED 1620* | Bouldering Movement & Technique | 1 |
| PHED 1630* | Basic Caving | 1 |
| PHED 1640* | Mountain Bike Skills | 1 |
| PHED 1650* | Basic Outdoor Water Skills | 1 |

Motion. Dr. Killman, representing Dr. Barfield, moved to approve the new concentration effective Fall 2012. The motion was seconded by Mr. LaBar and the motion carried.

NOTE: A copy of the TBR Academic Proposal Form is on file in the Office of the Associate Provost for Academic Affairs.

4. Proposal From Mathematics Tabled

In a memorandum dated February 22, 2012, approval was requested for the following:

Course Addition:

MATH 1000. Transitional Algebra. Lec. 2. Lab 2. Credit 3.

Prerequisite: ACT mathematics score greater than or equal to 19; or a Compass score of greater than or equal to 28; or completion of Learning Support Mathematics Competencies 1 thru 5, or equivalent.

Exponents and roots; polynomial, rational, radical, and absolute value expressions; factoring; linear equations and inequalities; quadratic equations; graphing; functions

Motion. Dr. Elliott, representing Dr. Mills, moved to approve the addition effective Fall 2012. The motion was seconded by Dr. Eisen.

Ms. Whiteaker stated the prerequisite would prevent a large number of students from attending Tech, with the DSPM 0800 courses no longer being offered on campus.

There was a lengthy discussion regarding the problems associated with this prerequisite.

Motion. Dr. Kemp moved to table the motion and for it to be presented at the next scheduled meeting or at a special called meeting. The motion was seconded by Ms. Whiteaker and carried.

5. Approval of Curriculum Changes from the Department of Chemistry

In a memorandum dated February 16, 2012, approval was requested for the following:

Curriculum change in Applied Chemistry (CHMN) concentration:

From:

BIOL 1110 General Zoology (4 hrs)

and

BIOL 1120 General Botany (4 hrs)

To:

BIOL 1105 Foundations of Biology (4 hrs)

and

BIOL 1115 General Zoology (4 hrs)

Curriculum change in Biochemistry (CHMB) concentration:

From:

BIOL 1110 General Zoology (4 hrs)

and

BIOL 1120 General Botany (4 hrs)

To:

BIOL 1105 Foundations of Biology (4 hrs)

and
 BIOL 1115 General Zoology (4 hrs)

BS, Major in Chemistry, Applied Chemistry Concentration

| CHEMISTRY (41 hrs) | | | ENGLISH (6 hrs) | | |
|----------------------------|-------------------------------|---|---|---------------------------------|-------|
| 1110 | General Chemistry | 4 | 1010 | Composition I | 3 |
| 1120 | General Chemistry | 4 | 1020 | Composition II | 3 |
| 1500 | 1st Yr Connections | 1 | | | |
| 2010 | Intro to Inorganic | 3 | | | |
| 3500 | Elem Phys Chem | 3 | HUMANITIES (9 hrs) | | |
| 3010 | Organic Chemistry | 4 | | | 3 |
| 3020 | Organic Chemistry | 4 | | | 3 |
| 3410 | Quant. Analysis | 4 | | | 3 |
| 3420 | Analytical Applic'ns | 3 | HISTORY (6 hrs) | | |
| 4910 | Seminar | 2 | 2010 | American History I | 3 |
| ----- | CHEM Electives ¹ | 9 | 2020 | American History II | 3 |
| | | | | | |
| | | | SOCIAL SCIENCE (6 hrs)² | | |
| BIOLOGY (8 hrs) | | | | | 3 |
| 1105 | Foundations of Biology | 4 | | | 3 |
| 1115 | General Zoology | 4 | | | |
| | | | COMMUNICATION (3 hrs) | | |
| | | | | | 3 |
| | | | | | |
| PHYSICS (8 hrs) | | | | | |
| 2010 | Algebra Physics I | 4 | DIRECTED TECH. REQ. (14-16 hrs) | | |
| 2020 | Algebra Physics II | 4 | ----- | Varies with option ¹ | 14-16 |
| | | | | | |
| | | | | | |
| | | | ELECTIVES (11-12 hrs) | | |
| MATHEMATICS (6 hrs) | | | ----- | Choice | 11-12 |
| 1530 | Elem Prob & Stat | 3 | | | |
| 1910 | Calculus I | 4 | | | |
| | | | | | |
| | | | | TOTAL | 120 |

| FRESHMAN YEAR | | | |
|----------------------|---------------|---------------------------------|--------------|
| DISC | NUMBER | SUBJECT | HOURS |
| CHEM | 1110, 1120 | General Chemistry | 8 |
| CHEM | 1500 | 1st Year Connections/Advisement | 1 |
| BIOL | 1105, 1115 | Foundations of Biology, Zoology | 8 |
| MATH | 1530 | Elem Probability & Statistics | 3 |
| ENGL | 1010, 1020 | Composition I, II | 6 |
| HUM | ----- | Humanities | 3 |
| | | TOTAL | 29 |

| SOPHOMORE YEAR | | | |
|-----------------------|---------------|-------------------------------------|--------------|
| DISC | NUMBER | SUBJECT | HOURS |
| CHEM | 2010 | Introduction to Inorganic Chemistry | 3 |
| CHEM | 3410, 3420 | Quant. Analysis, Analytical Appl'ns | 7 |
| DTR | ----- | Technical Requirement* | 3 |
| MATH | 1910 | Calculus I | 4 |
| PHYS | 2010, 2020 | Algebra-based Physics | 8 |
| SS | ----- | Social Science* | 6 |
| | | TOTAL | 31 |

| JUNIOR YEAR | | | |
|--------------------|---------------|--------------------------------|--------------|
| DISC | NUMBER | SUBJECT | HOURS |
| CHEM | 3010, 3020 | Organic Chemistry | 8 |
| CHEM | 3500 | Elements of Physical Chemistry | 3 |
| COM | ----- | SPCH 2410 or PC 2500 | 3 |
| HUM | ----- | Humanities | 3 |
| HIST | ----- | American History | 6 |
| DTR | ----- | Technical Requirements* | 7 |
| | | TOTAL | 30 |

| SENIOR YEAR** | | | |
|----------------------|---------------|-------------------------|--------------|
| DISC | NUMBER | SUBJECT | HOURS |
| CHEM | 4910 | Seminar | 2 |
| CHEM | ----- | Advanced CHEM Courses* | 9 |
| HUM | ----- | Humanities | 3 |
| DTR | ----- | Technical Requirements* | 3-8 |
| ELEC | ----- | Elective | 8-13 |
| | | TOTAL | 30 |

* See specific requirements for each option as listed in the following table.

| Specific Requirements for Applied Chemistry Options | | | |
|--|---|--|--|
| Option | Social Science (6 hrs) | Advanced Chemistry (9 hrs) | Directed Technical Requirements (14-17 hrs) |
| Business Chemistry | ECON 2010 ECON 2020 | 9 hours approved by advisor | ACCT 3720 BMGT 3510 FIN 3210 MKT 3400 DS 3620 or LAW 3810 |
| Environmental Chemistry | See Gen Ed list | CHEM 4710 CHEM 4720 3 hours approved by advisor | BIOL 3130 12 hours chosen from AGRN 3230, 4220, BIOL 4130, 4840, GEOL 4100, 4650, 4711 |
| Forensic Chemistry | SOC 1010 plus one course from Gen Ed list | CHEM 4410 CHEM 4610 CHEM 4650 | CJ 2660 CJ 4250 BIOL 3330 BIOL 3810 BIOL 4150 |
| Health Sciences | See Gen Ed list | CHEM 4610 CHEM 4620 3 hours approved by advisor | BIOL 2010, 2020 BIOL 3230 3 hours chosen from BIOL 3810, 4040, 4060, 4150 |
| Industrial Chemistry | See Gen Ed list | CHEM 4210 CHEM 4520 CHEM 4710 | COOP 2010, 2020, 2030 CSC 1100 MIT 1110 PC 3250 3 hours chosen from ACCT 3720 COOP 4010, 4020, 4030 ENGR 1110 |
| Chemistry | See Gen Ed list | 9 hours approved by advisor | Minimum 14 hours of complementary courses approved by advisor |

BS, Major in Chemistry, Biochemistry Concentration

| CHEMISTRY (37 hrs) | | | ENGLISH (6 hrs) | | |
|----------------------------|-------------------------------|---|-------------------------------|---------------------|-----|
| 1110 | General Chemistry | 4 | 1010 | Composition I | 3 |
| 1120 | General Chemistry | 4 | 1020 | Composition II | 3 |
| 1500 | 1st Yr Connections | 1 | | | |
| 3500 | Elem Physical Chem | 3 | | | |
| 3010 | Organic Chemistry | 4 | HUMANITIES (9 hrs) | | |
| 3020 | Organic Chemistry | 4 | | | 3 |
| 3410 | Quant. Analysis | 4 | | | 3 |
| 3420 | Analytical Applications | 3 | | | 3 |
| 4610 | Biochemistry I | 3 | HISTORY (6 hrs) | | |
| 4620 | Biochemistry II | 3 | 2010 | American History I | 3 |
| 4650 | Biochemistry Lab | 2 | 2020 | American History II | 3 |
| 4910 | Seminar | 2 | | | |
| | | | SOCIAL SCIENCE (6 hrs) | | |
| BIOLOGY (26 hrs) | | | | | 3 |
| 1105 | Foundations of Biology | 4 | | | 3 |
| 1115 | General Zoology | 4 | | | |
| 3140 | Cell Biology | 4 | COMMUNICATION (3 hrs) | | |
| 3230 | Microbiology | 4 | | | 3 |
| 3810 | General Genetics | 4 | | | |
| 4150 | Molecular Genetics | 3 | | | |
| ---- | Elective* | 3 | PHYSICS (8 hrs) | | |
| | | | 2010 | Algebra Physics I | 4 |
| MATHEMATICS (7 hrs) | | | 2020 | Algebra Physics II | 4 |
| 1910 | Calculus I | 4 | | | |
| 3070 | Statistical Methods | 3 | | | |
| | | | ELECTIVES (12 hrs) | | |
| | | | ---- | Choice | 12 |
| | | | | | |
| | | | | | |
| | | | | TOTAL | 120 |

* Chosen from BIOL 4040 or 4060.

| FRESHMAN YEAR | | | |
|----------------------|---------------|---------------------------------|-------|
| DISC | NUMBER | SUBJECT | |
| CHEM | 1110, 1120 | General Chemistry | |
| CHEM | 1500 | 1st Year Connections/Advisement | |
| BIOL | 1105, 1115 | Foundations of Biology, Zoology | |
| MATH | 1910 | Calculus I | |
| ENGL | 1010, 1020 | Composition I, II | |
| SS | ----- | Social Science | |
| | | | TOTAL |

| SOPHOMORE YEAR | | | |
|-----------------------|---------------|--|-------|
| DISC | NUMBER | SUBJECT | |
| CHEM | 3410, 3420 | Quant. Analysis, Analytical Applications | |
| BIOL | 3140 | Cell Biology | |
| BIOL | 3230 | Microbiology | |
| PHYS | 2010, 2020 | Algebra-based Physics | |
| HUM | ----- | Humanities | |
| SS | ----- | Social Science | |
| | | | TOTAL |

| JUNIOR YEAR | | | |
|--------------------|---------------|--------------------------------|-------|
| DISC | NUMBER | SUBJECT | |
| CHEM | 3010, 3020 | Organic Chemistry | |
| CHEM | 3500 | Elements of Physical Chemistry | |
| BIOL | 3810 | General Genetics | |
| HIST | 2010, 2020 | American History | |
| COM | ----- | Communication | |
| HUM | ----- | Humanities | |
| ELEC | ----- | Elective | |
| | | | TOTAL |

| SENIOR YEAR | | | |
|--------------------|---------------|----------------------------|--|
| DISC | NUMBER | SUBJECT | |
| CHEM | 4610, 4620 | General Biochemistry I, II | |
| CHEM | 4650 | Biochemistry Laboratory | |
| CHEM | 4910 | Seminar | |
| BIOL | 4150 | Molecular Genetics | |
| BIOL | ----- | Biology Elective* | |
| MATH | 3070 | Statistical Methods I | |

| | | | |
|------|-------|-----------|-------|
| ELEC | ----- | Electives | TOTAL |
|------|-------|-----------|-------|

* Chosen from BIOL 4040 or 4060.

Motion. Dr. Boles moved to approve the changes effective Fall 2012. The motion was seconded by Dr. Kemp and carried.

6. Approval of Curriculum Changes from the Department of Chemistry

In a memorandum dated February 24, 2012, approval was requested for the following:

Curriculum Changes for Pre-Professional Health Sciences

I. CURRICULUM CHANGES

A. Pre-Medicine

Replace BIOL 1110 with BIOL 1105. Number of hours is unchanged.
 Replace BIOL 1120 with BIOL 1115. Number of hours is unchanged.
 Add PSY 2010
 Add SOC 1010
 Add MATH 3070

B. Pre-Dentistry

Replace BIOL 1110 with BIOL 1105. Number of hours is unchanged.
 Replace BIOL 1120 with BIOL 1115. Number of hours is unchanged.

C. Pre-Pharmacy

Replace BIOL 1110 with BIOL 1105. Number of hours is unchanged.
 Replace BIOL 1120 with BIOL 1115. Number of hours is unchanged.

D. Pre-Optometry

Replace BIOL 1110 with BIOL 1105. Number of hours is unchanged.
 Replace BIOL 1120 with BIOL 1115. Number of hours is unchanged.

E. Pre-Physical Therapy

Replace BIOL 1110 with BIOL 1105. Number of hours is unchanged.
 Replace BIOL 1120 with BIOL 1115. Number of hours is unchanged.

F. Pre-Occupational Therapy

Replace BIOL 1110 with BIOL 1105. Number of hours is unchanged.
 Replace BIOL 1120 with BIOL 1115. Number of hours is unchanged.

G. Pre-Dental Hygiene

Replace BIOL 1110 with BIOL 1105. Number of hours is unchanged.

H. Pre-Medical Technology

Replace BIOL 1110 with BIOL 1105. Number of hours is unchanged.
 Replace BIOL 1120 with BIOL 1115. Number of hours is unchanged.

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- (remove old superscript ²)

Total: 32

Sophomore Year

- CHEM 3010 - Organic Chemistry I Credit: 4.
- CHEM 3020 - Organic Chemistry II Credit: 4.
- ENGL 2130 - American Literature Credit: 3. or
- ENGL 2230 - British Literature Credit: 3. or
- ENGL 2330 - World Literature Credit: 3.
- PHYS 2010 - Algebra-based Physics I Credit: 4.
- PHYS 2020 - Algebra-based Physics II Credit: 4.
- MATH 3070 - Statistical Methods I Credit: 3
- Elective (Humanities-3 hours) Credit 10.

Total: 32

Junior Year

- CHEM 4610 (5610) - General Biochemistry Credit: 3.
 - CHEM 4620 (5620) - General Biochemistry Credit: 3. (remove old superscript ²)
 - Biology Elective Credit 4.
 - Elective Credit 18.

Total: 28

Note:

It is recommended that students have at least 120 semester hours credit or a B.A. or B.S. degree to be competitive for admission.

¹For students intending to earn a Bachelors degree before entering professional school, it is recommended that elective hours be taken from core requirements or a selected degree program. Additional courses in chemistry and biology are suggested.

²Dental School Requirements

² The new Medical College Admission Test® (MCAT®) will be introduced in 2015. Adding PSY 2010, SOC 1010, and MATH 3070 will better prepare students for a new section on the MCAT²⁰¹⁵ entitled *Psychological, Social and Biological Foundations of Behavior*.

Pre-Dentistry

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Return to: Department of Chemistry

Pre-Dentistry, ~~Pre-Medicine, and Pre-Optometry~~ Curricula

•

Pre-Dentistry **Freshman Year**

- ~~BIOL 1110 - General Zoology Credit: 4.~~
- ~~BIOL 1120 - General Botany Credit: 4.~~
- **BIOL 1105 - Foundations of Biology Credit 4.**

- **BIOL 1115 - General Zoology Credit 4.**
- CHEM 1110 - General Chemistry I Credit: 4.
- CHEM 1120 - General Chemistry II Credit: 4.
- ENGL 1010 - Writing I Credit: 3.
- ENGL 1020 - Writing II Credit: 3.
- Electives Credit 9. ¹
- UNPP 1020 - University Pre-Professional, First-Year Interactions and Advisement Credit: 1.

Total: 32

Sophomore Year

- CHEM 3010 - Organic Chemistry I Credit: 4.
- CHEM 3020 - Organic Chemistry II Credit: 4.
- ENGL 2130 - American Literature Credit: 3. or
- ENGL 2230 - British Literature Credit: 3. or
- ENGL 2330 - World Literature Credit: 3.
- PHYS 2010 - Algebra-based Physics I Credit: 4.
- PHYS 2020 - Algebra-based Physics II Credit: 4.
- Electives (Humanities-3 hours) Credit 13. ¹

•**Total: 32**

Junior Year

- CHEM 4610 (5610) - General Biochemistry Credit: 3. ²~~(remove-superscript-²)~~
- CHEM 4620 (5620) - General Biochemistry Credit: 3. ²~~(remove-superscript-²)~~
- Biology Elective Credit 4.
- Electives Credit 18. ¹

Total: 28

Note:

It is recommended that students have at least 120 semester hours credit or a B.A. or B.S. degree to be competitive for admission.

¹ For students intending to earn a Bachelors degree before entering professional school, it is recommended that elective hours be taken from core requirements or a selected degree program. Additional courses in chemistry and biology are suggested.

² ~~Dental School Requirements~~

Pre-Pharmacy Freshman Year

- ~~• BIOL 1110 - General Zoology Credit: 4.~~
- ~~• BIOL 1120 - General Botany Credit: 4.~~
- **BIOL 1105 - Foundations of Biology Credit 4.**
- **BIOL 1115 - General Zoology Credit 4.**
- CHEM 1110 - General Chemistry I Credit: 4.
- CHEM 1120 - General Chemistry II Credit: 4.
- ENGL 1010 - Writing I Credit: 3.
- ENGL 1020 - Writing II Credit: 3.
- MATH 1530 - Elementary Probability and Statistics Credit: 3.
- MATH 1910 - Calculus I Credit: 4.
- UNPP 1020 - University Pre-Professional, First-Year Interactions and Advisement Credit: 1.

Total: 30

Sophomore Year

- BIOL 3230 - Health Science Microbiology Credit: 4.
- CHEM 3010 - Organic Chemistry I Credit: 4.
- CHEM 3020 - Organic Chemistry II Credit: 4.
- ECON 2010 - Principles of Microeconomics Credit: 3.
- ENGL 2130 - American Literature Credit: 3. or
- ENGL 2230 - British Literature Credit: 3. or
- ENGL 2330 - World Literature Credit: 3.
- PHYS 2010 - Algebra-based Physics I Credit: 4.
- Elective Credit 9.

Total: 31

Junior Year

- BIOL 2010 - Human Anatomy and Physiology I Credit: 4.
- BIOL 2020 - Human Anatomy and Physiology II Credit: 4.
- BIOL 4040 (5040) - Immunology Credit: 3.
- CHEM 4610 (5610) - General Biochemistry Credit: 3.
- CHEM 4620 (5620) - General Biochemistry Credit: 3.
- Humanities/Fine Arts Elective Credit 3.
- Social/Behavioral Science Elective Credit 3.
- SPCH 2410 - Introduction to Speech Communication Credit: 3. or
- SPCH 4430 (5430) - Interpersonal Communication Credit: 3.
- Elective Credit 3.

Total: 29

PRE-OPTOMETRY

 Print-Friendly Page

 Return to: Department of Chemistry

~~Pre-Dentistry, Pre-Medicine, and Pre-Optometry Curricula~~

Completion of ~~this one~~ of these three-year programs meets the requirements for admission to ~~most~~ **optometry** professional schools but does not guarantee entrance. Admission into any professional school is competitive.

Pre-Optometry Curriculum

Freshman Year

- **BIOL 1105 - Foundations of Biology Credit 4.**
- **BIOL 1115 - General Zoology Credit 4.**
- CHEM 1110 - General Chemistry I Credit: 4.
- CHEM 1120 - General Chemistry II Credit: 4.
- ENGL 1010 - Writing I Credit: 3.
- ENGL 1020 - Writing II Credit: 3.
- MATH 1730 - Pre-calculus Mathematics Credit: 5.
- MATH 1910 - Calculus I Credit: 4.
- UNPP 1020 - University Pre-Professional, First-Year Interactions and Advisement Credit: 1.

Total: 32

Sophomore Year

- CHEM 3005 - Elementary Organic Chemistry Credit: 4².
- CHEM 4500 - Physiological Chemistry Credit: 3.
-
- ENGL 2130 - American Literature Credit: 3. or
- ENGL 2230 - British Literature Credit: 3. or
- ENGL 2330 - World Literature Credit: 3.
-
- MATH 1530 - Elementary Probability and Statistics Credit: 3.
- PHYS 2010 - Algebra-based Physics I Credit: 4.
- PHYS 2020 - Algebra-based Physics II Credit: 4.
- Electives Credit 9.

Total: 30

Junior Year

-
- BIOL 2010 - Human Anatomy and Physiology I Credit: 4.
 - BIOL 2020 - Human Anatomy and Physiology II Credit: 4.
 - BIOL 3140 - Cellular Biology Credit: 4.
 - BIOL 3230 - Health Science Microbiology Credit: 4.
 - Social Science Credit 6.
 - PSY 2010 - General Psychology Credit: 3.
 - Electives Credit 3.¹

Total: 28

Note:

¹ For students intending to earn a Bachelors degree before entering professional school, it is recommended that elective hours be taken from core requirements or a selected degree program.

² One semester of biochemistry is recommended at most optometry schools and required by some.

Pre-Optometry

Freshman Year

- ~~BIOL 1110 - General Zoology Credit: 4.~~
- ~~BIOL 1120 - General Botany Credit: 4.~~
- **BIOL 1105 - Foundations of Biology Credit 4.**
- **BIOL 1115 - General Zoology Credit 4.**
- CHEM 1110 - General Chemistry I Credit: 4.
- CHEM 1120 - General Chemistry II Credit: 4.
- ENGL 1010 - Writing I Credit: 3.
- ENGL 1020 - Writing II Credit: 3.
- MATH 1730 - Pre-calculus Mathematics Credit: 5.
- MATH 1910 - Calculus I Credit: 4.
- UNPP 1020 - University Pre-Professional, First-Year Interactions and Advisement Credit: 1.

Total: 32

Sophomore Year

- CHEM 3005 - Elementary Organic Chemistry Credit: 4.
- CHEM 4500 - Physiological Chemistry Credit: 3.
- ENGL 2130 - American Literature Credit: 3. or
- ENGL 2230 - British Literature Credit: 3. or
- ENGL 2330 - World Literature Credit: 3.
- MATH 1530 - Elementary Probability and Statistics Credit: 3.
- PHYS 2010 - Algebra-based Physics I Credit: 4.
- PHYS 2020 - Algebra-based Physics II Credit: 4.
- Elective Credit 9.

Total: 30

Junior Year

- BIOL 2010 - Human Anatomy and Physiology I Credit: 4.
- BIOL 2020 - Human Anatomy and Physiology II Credit: 4.
- BIOL 3140 - Cellular Biology Credit: 4.
- BIOL 3230 - Health Science Microbiology Credit: 4.
- Social Science Credit 6.
- PSY 2010 - General Psychology Credit: 3.
- Elective Credit 3.

Total: 28

Pre-Physical Therapy

Freshman Year

- ~~BIOL 1110 - General Zoology Credit: 4.~~
- ~~BIOL 1120 - General Botany Credit: 4.~~
- **BIOL 1105 - Foundations of Biology Credit 4.**
- **BIOL 1115 - General Zoology Credit 4.**
- CHEM 1110 - General Chemistry I Credit: 4.
- CHEM 1120 - General Chemistry II Credit: 4.
- ENGL 1010 - Writing I Credit: 3.
- ENGL 1020 - Writing II Credit: 3.
- MATH 1130 - College Algebra Credit: 3. or
- MATH 1710 - Pre-calculus I Credit: 3.
- Humanities/Fine Arts Elective Credit 3.
- UNPP 1020 - University Pre-Professional, First-Year Interactions and Advisement Credit: 1.

Total: 29

Sophomore Year

- BIOL 2010 - Human Anatomy and Physiology I Credit: 4.
- BIOL 2020 - Human Anatomy and Physiology II Credit: 4.
- ENGL 2130 - American Literature Credit: 3. or
- ENGL 2230 - British Literature Credit: 3. or
- ENGL 2330 - World Literature Credit: 3.
- PHYS 2010 - Algebra-based Physics I Credit: 4.
- PHYS 2020 - Algebra-based Physics II Credit: 4.
- PSY 2010 - General Psychology Credit: 3.
- PSY 3200 - Developmental Psychology Credit: 3.
- Elective Credit 6.

Total: 31

Junior Year

- CSC 1100 - Introduction to Computing Credit: 3.
- MATH 1530 - Elementary Probability and Statistics Credit: 3. or
- PSY 3010 - Statistics and Experimental Design Credit: 3.
- Social/Behavioral Science Elective Credit 6.
- Elective Credit 19.

Total: 31

Pre-Occupational Therapy

Freshman Year

- ~~BIOL 1110 - General Zoology Credit: 4.~~
- ~~BIOL 1120 - General Botany Credit: 4.~~
- **BIOL 1105 - Foundations of Biology Credit 4.**
- **BIOL 1115 - General Zoology Credit 4.**
- CHEM 1110 - General Chemistry I Credit: 4.
- ENGL 1010 - Writing I Credit: 3.
- ENGL 1020 - Writing II Credit: 3.
- Humanities/Fine Arts Elective Credit 6.
- PSY 2010 - General Psychology Credit: 3.
- SOC 1010 - Introduction to Sociology Credit: 3.
- UNPP 1020 - University Pre-Professional, First-Year Interactions and Advisement Credit: 1.

Total: 31

Sophomore Year

- BIOL 2010 - Human Anatomy and Physiology I Credit: 4.
- BIOL 2020 - Human Anatomy and Physiology II Credit: 4.
- ENGL 2130 - American Literature Credit: 3. or
- ENGL 2230 - British Literature Credit: 3. or
- ENGL 2330 - World Literature Credit: 3.
- PHYS 2010 - Algebra-based Physics I Credit: 4.
- PSY 3200 - Developmental Psychology Credit: 3. or
- PSY 4300 (5300) - Adult Psychology Credit: 3.
- PSY 4160 (5160) - Abnormal Psychology Credit: 3.
- SPCH 2410 - Introduction to Speech Communication Credit: 3.
- Elective (Humanities-3 credit hours) Credit 6.

Total: 30

Junior Year

- CSC 1100 - Introduction to Computing Credit: 3.
- MATH 1530 - Elementary Probability and Statistics Credit: 3. or
- PSY 3010 - Statistics and Experimental Design Credit: 3.
- ANTH 1100 - Introduction to Anthropology Credit: 3.
- Social/Behavioral Science Elective Credit 3.
- Elective Credit 18.

Total: 30

Pre-Dental Hygiene

Freshman Year

- ~~BIOL 1110 - General Zoology Credit: 4.~~
- **BIOL 1115 - General Zoology Credit 4.**
- CHEM 1010 - Introduction to Chemistry I Credit: 4. or
- CHEM 1110 - General Chemistry I Credit: 4.
- CHEM 1020 - Introduction to Chemistry II Credit: 4. or
- CHEM 1120 - General Chemistry II Credit: 4.
- ENGL 1010 - Writing I Credit: 3.
- ENGL 1020 - Writing II Credit: 3.
- PSY 2010 - General Psychology Credit: 3.
- SOC 1010 - Introduction to Sociology Credit: 3.
- Elective Credit 6.
- UNPP 1020 - University Pre-Professional, First-Year Interactions and Advisement Credit: 1.

Total: 31

Sophomore Year

- BIOL 2010 - Human Anatomy and Physiology I Credit: 4.
- BIOL 2020 - Human Anatomy and Physiology II Credit: 4.
- BIOL 3230 - Health Science Microbiology Credit: 4.
- ENGL 2130 - American Literature Credit: 3. or
- ENGL 2230 - British Literature Credit: 3. or
- ENGL 2330 - World Literature Credit: 3.
- SPCH 2410 - Introduction to Speech Communication Credit: 3.
- Social/Behavioral Science Elective Credit 6.
- Elective Credit 6.

Total: 30

Pre-Medical Technology

Freshman Year

- ~~BIOL 1110 - General Zoology Credit: 4.~~
- ~~BIOL 1120 - General Botany Credit: 4.~~
- **BIOL 1105 - Foundations of Biology Credit 4.**
- **BIOL 1115 - General Zoology Credit 4.**
- CHEM 1110 - General Chemistry I Credit: 4.
- CHEM 1120 - General Chemistry II Credit: 4.
- ENGL 1010 - Writing I Credit: 3.
- ENGL 1020 - Writing II Credit: 3.
- MATH 1130 - College Algebra Credit: 3.
- Elective Credit 6.
- UNPP 1020 - University Pre-Professional, First-Year Interactions and Advisement Credit: 1.

Total: 32

Sophomore Year

- BIOL 2010 - Human Anatomy and Physiology I Credit: 4.
- CHEM 3010 - Organic Chemistry I Credit: 4. or
- CHEM 3020 - Organic Chemistry II Credit: 4.
- Or
- CHEM 3005 - Elementary Organic Chemistry Credit: 4. or
- CHEM 4500 - Physiological Chemistry Credit: 3.
- ENGL 2130 - American Literature Credit: 3. or
- ENGL 2230 - British Literature Credit: 3. or
- ENGL 2330 - World Literature Credit: 3.
- Elective (Humanities-3 hours) Credit 15.

Total: 29-30

Motion. Dr. Boles moved to approve the changes effective Fall 2012. The motion was seconded by Dr. Gore and carried.

7. Approval of Catalog Changes for Pre-Professional Health Sciences from the Department of Chemistry

2012-13 Catalog Changes:

2012-2013 Catalog Changes

Pre-Professional Health Sciences (Chemistry)

We have changes in 8 of our 9 Pre-Professional Programs. Only Pre-Health Information Management will have no changes.

Changes to be made/added are in red. Old text that is to be replaced is struck through.

1) **On A&S Homepage:**

Pre-professional health science students are advised by ~~Professors Kline (ekline@tntech.edu) and Banks (tbanks@tntech.edu) in the Chemistry Department.~~ **Professor Eugene Kline (ekline@tntech.edu) and Instructors Ann Marie Carrick (acarrick@tntech.edu) and Janet Coonce (jcoonce@tntech.edu).**

2-4) **Pre-medicine, Pre-Dental, and Pre-Optometry changes.** Since we have some majors changes in pre-med this year, we would like to make these three programs have their own curriculum page instead of having them share (i.e. no longer say: Pre-Dentistry, Pre-Medicine, and Pre-Optometry Curricula).

2) **Pre-Medicine Changes**

~~Pre-Dentistry, Pre-Medicine, and Pre-Optometry Curricula~~

Pre-Dentistry and Pre-Medicine Curriculum

Pre-Medicine

Freshman Year

- ~~• BIOL 1110 – General Zoology Credit: 4.~~
- ~~• BIOL 1120 – General Botany Credit: 4.~~
- **BIOL 1105 - Foundations of Biology Credit 4.**
- **BIOL 1115 - General Zoology Credit 4.**
- CHEM 1110 - General Chemistry I Credit: 4.
- CHEM 1120 - General Chemistry II Credit: 4.
- ENGL 1010 - Writing I Credit: 3.
- ENGL 1020 - Writing II Credit: 3.
- **PSY 1020 - General Psychology Credit: 3. ²**
- **SOC 1010 – Introduction to Sociology Credit: 3. ²**
- **Elective Credit 3.**
- UNPP 1020 - University Pre-Professional, First-Year Interactions and Advisement Credit: 1.

Total: 32

Sophomore Year

- CHEM 3010 - Organic Chemistry I Credit: 4.
- CHEM 3020 - Organic Chemistry II Credit: 4.

- ENGL 2130 - American Literature Credit: 3. or
- ENGL 2230 - British Literature Credit: 3. or
- ENGL 2330 - World Literature Credit: 3.
- PHYS 2010 - Algebra-based Physics I Credit: 4.
- PHYS 2020 - Algebra-based Physics II Credit: 4.
- **MATH 3070 - Statistical Methods I Credit: 3.²**
- Elective (Humanities-3 hours) Credit 10.

Total: 32

Junior Year

- CHEM 4610 (5610) - General Biochemistry Credit: 3. (remove old superscript²)
- CHEM 4620 (5620) - General Biochemistry Credit: 3. (remove old superscript²)
- Biology Elective Credit 4.
- Elective Credit 18.

Total: 28

Note:

It is recommended that students have at least 120 semester hours credit or a B.A. or B.S. degree to be competitive for admission.

¹For students intending to earn a Bachelors degree before entering professional school, it is recommended that elective hours be taken from core requirements or a selected degree program. Additional courses in chemistry and biology are suggested.

²Dental School Requirements

² The new Medical College Admission Test® (MCAT®) will be introduced in 2015. Adding PSY 2010, SOC 1010, and MATH 3070 will better prepare students for a new section on the MCAT²⁰¹⁵ entitled *Psychological, Social and Biological Foundations of Behavior*.

3) Pre-Dentistry Changes

Pre-Dentistry

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Return to: [Department of Chemistry](#)

~~Pre-Dentistry, Pre-Medicine, and Pre-Optometry Curricula~~

Completion of ~~one of these~~ **this** three-year programs meets the requirements for admission to **most dental schools** ~~professional school~~ but does not guarantee entrance. Admission into any professional school is competitive.

Pre-Dentistry ~~and Pre-Medicine~~ Curriculum

Freshman Year

- **BIOL 1105 - Foundations of Biology Credit 4.**
- **BIOL 1115 - General Zoology Credit 4.**
- [CHEM 1110 - General Chemistry I](#) Credit: 4.
- [CHEM 1120 - General Chemistry II](#) Credit: 4.
- [ENGL 1010 - Writing I](#) Credit: 3.
- [ENGL 1020 - Writing II](#) Credit: 3.
- Electives Credit 9. ¹
- [UNPP 1020 - University Pre-Professional, First-Year Interactions and Advisement](#) Credit: 1.

Total: 32

Sophomore Year

- [CHEM 3010 - Organic Chemistry I](#) Credit: 4.
- [CHEM 3020 - Organic Chemistry II](#) Credit: 4.
- [ENGL 2130 - American Literature](#) Credit: 3. or
- [ENGL 2230 - British Literature](#) Credit: 3. or
- [ENGL 2330 - World Literature](#) Credit: 3.
- [PHYS 2010 - Algebra-based Physics I](#) Credit: 4.
- [PHYS 2020 - Algebra-based Physics II](#) Credit: 4.
- Electives (Humanities-3 hours) Credit 13. ¹

•Total: 32

Junior Year

- [CHEM 4610 \(5610\) - General Biochemistry](#) Credit: 3. ²~~-(remove superscript²)~~
- [CHEM 4620 \(5620\) - General Biochemistry](#) Credit: 3.
- Biology Elective Credit 4.
- Electives Credit 18. ¹

Total: 28

Note:

It is recommended that students have at least 120 semester hours credit or a B.A. or B.S. degree to be competitive for admission.

¹ For students intending to earn a Bachelors degree before entering professional school, it is recommended that elective hours be taken from core requirements or a selected degree program. Additional courses in chemistry and biology are suggested.

² ~~Dental School Requirements~~

4.) Pre-Optometry Requirements

PRE-OPTOMETRY

 [Print-Friendly Page](#)

 Return to: [Department of Chemistry](#)

~~Pre-Dentistry, Pre-Medicine, and Pre-Optometry Curricula~~

Completion of ~~this one of these~~ three-year programs meets the requirements for admission to ~~most optometry professional schools~~ but does not guarantee entrance. Admission into any professional school is competitive.

Pre-Optometry Curriculum

Freshman Year

- **BIOL 1105 - Foundations of Biology Credit 4.**

- **BIOL 1115 - General Zoology Credit 4.**

[CHEM 1110 - General Chemistry I](#) Credit: 4.

[CHEM 1120 - General Chemistry II](#) Credit: 4.

[ENGL 1010 - Writing I](#) Credit: 3.

[ENGL 1020 - Writing II](#) Credit: 3.

[MATH 1730 - Pre-calculus Mathematics](#) Credit: 5.

[MATH 1910 - Calculus I](#) Credit: 4.

[UNPP 1020 - University Pre-Professional, First-Year Interactions and Advisement](#) Credit: 1.

Total: 32

Sophomore Year

[CHEM 3005 - Elementary Organic Chemistry](#) Credit: 4².

[CHEM 4500 - Physiological Chemistry](#) Credit: 3.

[ENGL 2130 - American Literature](#) Credit: 3. or

[ENGL 2230 - British Literature](#) Credit: 3. or

[ENGL 2330 - World Literature](#) Credit: 3.

[MATH 1530 - Elementary Probability and Statistics](#) Credit: 3.

[PHYS 2010 - Algebra-based Physics I](#) Credit: 4.

[PHYS 2020 - Algebra-based Physics II](#) Credit: 4.

Electives Credit 9.

Total: 30

Junior Year

[BIOL 2010 - Human Anatomy and Physiology I](#) Credit: 4.

[BIOL 2020 - Human Anatomy and Physiology II](#) Credit: 4.

[BIOL 3140 - Cellular Biology](#) Credit: 4.

[BIOL 3230 - Health Science Microbiology](#) Credit: 4.

Social Science Credit 6.

[PSY 2010 - General Psychology](#) Credit: 3.

Electives Credit 3.¹

Total: 28

Note:

¹ For students intending to earn a Bachelors degree before entering professional school, it is recommended that elective hours be taken from core requirements or a selected degree program.

² One semester of biochemistry is recommended at most optometry schools and required by some.

5) Pre-Pharmacy, Pre-Physical Therapy, Pre-Occupational Therapy, Pre-Medical Technology

For these four programs, the only change is adding the new freshman biology sequence:

- **BIOL 1105 - Foundations of Biology Credit 4.**
- **BIOL 1115 - General Zoology Credit 4.**

6) Pre-Dental Hygiene: Only add:

- **BIOL 1115 - General Zoology Credit 4.**

7) No Changes to Pre-health Information Management!

Motion. Dr. Boles moved to approve the catalog changes. The motion was seconded by Dr. Robinson and carried.

8. Approval of Course Change from the Learning Support Program

In a memorandum dated March 6, 2012, approval was requested for the following:

Course number change:

From:

READ 2000. College reading Improvement. Lec. 2. Credit 2.

Improvement of reading and study skills, including vocabulary, spelling, comprehension, and rate.

To:

READ 1000. College Reading Improvement. Lec. 2. Lab. 2. Credit 3.

Placement by ACT Reading Score less than 19, by advisor recommendation, or by student self placement.

Improvement of reading skills, including vocabulary, spelling, comprehension, rate, main idea, supporting details, organization and relationships, and critical and strategic reading. ~~Not degree credit.~~

Motion. Ms. Whiteaker moved to approve the change effective Summer 2012. The motion was seconded by Dr. Boles. A suggestion was made to strike "Not degree credit. Ms. Whiteaker accepted this as a friendly amendment and the motion carried.

9. Approval of Curriculum Changes from the Department of Computer Science

In a memorandum dated February 29, 2012, approval was requested for the following:

Curriculum changes:

Replace Math 2010 (2 hours) + Math 2011 (1 hour) with the new three hour Matrix Algebra course (Math 2010).

Updated curriculum:

Freshman Year

CSC 1020 - First-Year Connections Credit: 1. ¹
CSC 1610 - Discrete Structures for Computer Science Credit: 3.
CSC 2100 - Introduction to Problem Solving and Computer Programming Credit: 3.
CSC 2101 - Problem Solving and Computer Programming Lab Credit: 1.
CSC 2110 - Data Structures and Algorithms Credit: 3.
CSC 2111 - Data Structures and Algorithms Lab Credit: 1.
MATH 1910 - Calculus I Credit: 4.
MATH 1920 - Calculus II Credit: 4.
Humanities/Fine Arts Elective Credit 3. ²
ENGL 1010 - Writing I Credit: 3.
ENGL 1020 - Writing II Credit: 3.
Total: 29

Sophomore Year

CSC 2120 - Object-Oriented Programming and Design Credit: 3.
CSC 2121 - Object-Oriented Programming and Design Lab Credit: 1.
CSC 2400 - Design of Algorithms Credit: 3.
CSC 2500 - Unix Laboratory Credit: 1.
CSC 2710 - Foundations of Computer Science Credit: 3.
SPCH 2410 - Introduction to Speech Communication Credit: 3. or
PC 2500 - Communicating in the Professions Credit: 3.
~~MATH 2010 - Elementary Matrix Algebra Credit: 2.~~
~~MATH 2011 - Matrix Algebra Computer Lab Credit: 1.~~
MATH 2010 Matrix Algebra Credit: 3.
First Science Sequence Credit 8. ³
Humanities/Fine Arts Elective Credit 3. ²
Electives Credit 3.
Total: 31

Junior Year

CSC 3030 - Practical and Professional Issues in Computer Science Credit: 1.
CSC 3410 - Computer Organization and Assembly Language Programming Credit: 3.
CSC Upper-Division Elective⁴ Credit 3.
MATH 3470 - Introductory Probability and Statistics Credit: 3.
HIST 2010 - American History I Credit: 3.
HIST 2020 - American History II Credit: 3.
Humanities/Fine Arts Elective Credit 3. ²
Second Science Sequence Credit 8. ³
Social/Behavioral Science Elective² Credit 3.
Total: 30

Senior Year

CSC 4100 (5100) - Operating Systems Credit: 3.
CSC 4300 (5300) - Database Management Systems Credit: 3.
CSC 4320 (5320) - Computer Architecture Credit: 3.
CSC 4610 - Software Engineering I Credit: 3.
CSC 4620 - Software Engineering II Credit: 3.
CSC Upper-Division Elective⁴ Credit 3.
CSC Advanced Core⁵ Credit 3.

Upper-Division Electives Credit 5.
Electives Credit 2.
Social/Behavioral Science Elective² Credit 3.
Total: 31

Note:

¹Not required for transfer students with more than 12 hours.

²See TBR General Education Core Requirements.

³Take at least one science sequence from BIOL 1110-BIOL 1120 , CHEM 1110-CHEM 1120 , GEOL 1040-GEOL 1045 or PHYS 2110-PHYS 2120 and PHYS 2111 PHYS 2121 (laboratories for PHYS 2110-PHYS 2120).

⁴Take any additional 3000- or 4000-level CSC course.

⁵Select from one of the following: CSC 4010 (5010), CSC 4240 (5240), CSC 4400 (5400), and CSC 4450 (5450).

Motion. Dr. Talbert moved to approve the changes effective Fall 2012. The motion was seconded and carried.

10. Approval of Course and Curriculum Changes from the Department of Civil & Environmental Engineering

In a memorandum dated March 7, 2012, approval was requested for the following:

Course change:

FROM:

CEE 2110 - Statics

Lec. 3. Credit 3.

Prerequisite: ENGR 1120, MATH 1920 and PHYS 2110 (ENGR 1120 and PHYS 2110 may be taken concurrently). Vector algebra, resultants, equilibrium, friction, centroids, moment of inertia, trusses, machines and frames, beam shear and moments.

TO:

CEE 2110 - Statics

Lec. 3. Credit 3.

Prerequisite: MATH 1920 and PHYS 2110 (PHYS 2110 may be taken concurrently). Vector algebra, resultants, equilibrium, friction, centroids, moment of inertia, trusses, machines and frames, beam shear and moments.

Curriculum change:

PHYS 2120/2121

The CEE Department requests the addition of PHYS 2120/2121 (3 cr. Lec/1 cr. Lab) as an alternative in the curriculum to CHEM 1120 (4 cr.)

Course changes:

a. FROM:

CEE 3413 Environmental Engineering

Lec. 3. Credit 3.

Prerequisite: CHEM 1120 and MATH 2110. Fundamentals of environmental engineering with applications in water quality, water and wastewater treatment, solid waste management, air pollution, and hazardous waste management.

TO:

CEE 3413 Environmental Engineering

Lec. 3. Credit 3.

Prerequisite: CHEM 1110 and MATH 2110. Fundamentals of environmental engineering with applications in water quality, water and wastewater treatment, solid waste management, air pollution, and hazardous waste management.

b. FROM:

CEE 4430 (5430) Water and Wastewater Engineering

Lec. 3. Credit 3.

Prerequisite: CEE 3413 or consent of instructor. Analytical methods for use in water quality management of streams, lakes, reservoirs, and groundwater systems. Project design of water and wastewater treatment plants.

TO:

CEE 4430 (5430) Water and Wastewater Engineering

Lec. 3. Credit 3.

Prerequisite: CHEM 1120 and CEE 3413 or consent of instructor. Analytical methods for use in water quality management of streams, lakes, reservoirs, and groundwater systems. Project design of water and wastewater treatment plants.

c. FROM:

CEE 4450 (5450) Water Quality Modeling

Lec. 3. Credit 3.

Prerequisite: CEE 3413 or consent of instructor. Mathematical modeling of chemical and biological processes occurring in streams, lakes, and estuaries, emphasizing oxygen demand and nutrient processes.

TO:

CEE 4450 (5450) Water Quality Modeling

Lec. 3. Credit 3.

Prerequisite: CHEM 1120 and CEE 3413 or consent of instructor. Mathematical modeling of chemical and biological processes occurring in streams, lakes, and estuaries, emphasizing oxygen demand and nutrient processes.

Clarification of allowed CEE Electives

FROM: The list of approved CEE Electives is specified in one of the footnotes for the curriculum listing as shown in Appendix C

(http://catalog.tntech.edu/preview_program.php?catoid=3&poid=330&returnto=397):

Approved CEE Electives: CEE 3100, any 4000-level CEE course with prior approval by advisor.

TO:

Approved CEE Electives: CEE 3100 or any 4000-level CEE course.

Delete references to ISE 3100 and ISE 3200 from the CEE curriculum

FROM: ISE 3210 is listed in the Junior Year as

(http://catalog.tntech.edu/preview_program.php?catoid=3&poid=330&returnto=397):

ISE 3210 - Engineering Statistics Credit: 2.⁵ or
ISE 3200 - Engineering Statistics Credit: 3.⁵

TO

CEE 3720 - Engineering Statistics Credit: 2. or
MATH 3470 Introduction to Probability and Statistics Credit 3.

FROM: ISE 3100 is listed in the Senior Year as

[http://catalog.tntech.edu/preview_program.php?catoid=3&poid=330&returnto=397:](http://catalog.tntech.edu/preview_program.php?catoid=3&poid=330&returnto=397)

ISE 3110 - Principles of Engineering Economy Credit: 2. or
ISE 3100 - Engineering Economy Credit: 3.

TO

CEE 3710 - Principles of Engineering Economy Credit: 2.

Motion. Dr. Talbert moved to approve the changes effective Fall 2012. The motion was seconded by Dr. Elsayy and the motion carried.

11. Approval of Course Change from the Department of Electrical & Computer Engineering

In a memorandum dated February 23, 2012, approval was requested for the following:

Course Change:

From:

ECE 3270 - Programmable Logic Controller Laboratory Lab. 3. Credit 1.

Prerequisite: ECE 2020, ECE 3060, and ECE 2110. Introduction to Ladder Logic Programming, Relays, PLC in Automation & Control, Safety, Hardware Troubleshooting, Hands-on laboratory experiments and projects.

TO:

ECE 3270 - Programmable Logic Controller Laboratory. Lab. 3. Credit 1.

Prerequisite: ECE 3060 or ME 3023 or CHE 2011 or CEE 3030 or MIT 3200. Introduction to Ladder Logic Programming, Relays, PLC in Automation & Control, Safety, Hardware Troubleshooting, Hands-on laboratory experiments and projects.

Motion. Dr. Rajan moved to approve the change effective Summer 2012. The motion was seconded by Dr. Elsayy and carried.

12. Approval of Course Additions, Deletion, Changes and Curriculum Changes from the Department of Manufacturing & Industrial Technology

In a memorandum dated February 27, 2012, approval was requested for the following:

I. Course Additions:

1. MIT 4615 – Engineering Technology Ethics and Professionalism. Lec 1. Credit 1.

Prerequisites: Senior Standing. This course examines the values and ethics of a technological society and the input of the technologist into the decision making process of a technological

organization.

- 2. MIT 1100 – Introduction to Manufacturing Engineering Technology. Lec. 1. Lab 2. Credit 2.**
Introduction to the manufacturing processes for engineering materials, productivity improvement, green manufacturing and lean strategies.

II. Course Deletions:

- 1. MIT 1110 - Introduction to Manufacturing Technology Lec. 2. Lab. 2. Credit 3.**
Introduction to the materials and processes used in the manufacturing of metals, ceramics, polymers, and wood products.

III. Course Changes:

- 1. FROM**
MIT 2063 - Metal Manufacturing Technology. Lec. 2. Lab. 2. Credit 3.
Prerequisite: ENGR 1110, MIT 1110 and MATH 1730 . Machine tool functions and use of hand tools and machines used to forming metals.

TO

MIT 2063 - Metal Manufacturing Technology - Lec. 2. Lab. 2. Credit 3.
Prerequisite: ENGR 1110 , MIT 1100 and MATH 1730 . Machine tool functions, use of hand tools, precision measurement, welding and fabrication of metals.

- 2. FROM**
MIT 3000 - Principles of Metal Casting. Lec 1. Lab 2. Credit 2.
Prerequisite: ENGR 1110, MIT 1110 and ME 3110.[ENGR 1110](#) , [MIT 1110](#) and [ME 3110](#)
Principles of molding and casting aluminum, brass and gray iron. Use of cores, patterns and machine molding included.

TO:

MIT 3000 - Principles of Metal Casting. Lec 1. Lab 2. Credit 2.
Prerequisite: [ENGR 1110](#) , [MIT 1100](#) and ME 3110.[ME 3110](#) Principles of molding and casting aluminum, brass and gray iron. Use of cores, patterns and machine molding included.

- 3. FROM**
MIT 3130 - Maintenance Technology I. Lec. 3. Credit 3.
Prerequisite: Junior standing, [MIT 1110](#) . Principles of organizing and controlling maintenance operations in industrial plants.

TO:

MIT 3130 - Maintenance Technology I. Lec. 3. Credit 3.
Prerequisite: Junior standing, [MIT 1100](#) . Principles of organizing and controlling maintenance operations in industrial plants.

- 4. FROM**
MIT 3200 - Applied Electricity and Electronics Lec. 2. Lab. 2. Credit 3.
Prerequisite: [PHYS 2020](#) , [MATH 1730](#) and [MATH 1910](#) or [1830](#). Fundamentals of electricity

and electronics, basic circuits, motors, generators and power distribution, advanced electronic circuits, semiconductors and power supplies, electronic communication, and data systems.

TO:

MIT 3200 - Applied Electricity and Electronics Lec. 2. Lab. 2. Credit 3.

Prerequisite: [PHYS 2020](#), [MATH 1845](#). Fundamentals of electricity and electronics, basic circuits, motors, generators and power distribution, advanced electronic circuits, semiconductors and power supplies, electronic communication, and data systems.

5. FROM

MIT 3700 - Manufacturing Cost Estimating. Lec. 2. Credit 2.

Prerequisite: Junior standing, [MIT 1110](#). This is an experiential learning course where the students participate in solving an industrial problem. This course requires the application of computer-aided design, bill of materials, manufacturing processes, process design, writing a report, and presentation of the results.

TO:

MIT 3700 - Manufacturing Cost Estimating. Lec. 2. Credit 2.

Prerequisite: Junior standing, [MIT 1100](#). This is an experiential learning course where the students participate in solving an industrial problem. This course requires the application of computer-aided design, bill of materials, manufacturing processes, process design, writing a report, and presentation of the results.

6. FROM

MIT 3710 - Methods Design and Work Measurement. Lec. 2. Credit 2.

Prerequisite: Junior standing, [MIT 1110](#). Introduction to concepts and the practice of methods improvement and work measurement for lean manufacturing.

TO:

MIT 3710 - Methods Design and Work Measurement. Lec. 2. Credit 2.

Prerequisite: Junior standing, [MIT 1100](#). Introduction to concepts and the practice of methods improvement and work measurement for lean manufacturing.

7. FROM

MIT 3730 - Quality Assurance. Lec. 2. Credit 2.

Prerequisite: Junior Standing, [MIT 1110](#). Using 6-Sigma methods for controlling the quality of materials and products in production systems.

TO:

MIT 3730 - Quality Assurance. Lec. 2. Credit 2.

Prerequisite: Junior Standing, [MIT 1100](#). Using 6-Sigma methods for controlling the quality of materials and products in production systems.

8. FROM

MIT 4200 - Industrial Electronics Lec. 2. Lab. 2. Credit 3.

Prerequisite: [MIT 3200](#), [MATH 1730](#). The fundamentals of process control, transducers, signal processing, feedback loops, activators, and analog and digital controllers.

TO:

MIT 4200 - Industrial Electronics Lec. 2. Lab. 2. Credit 3.

Prerequisite: [MIT 3200](#). The fundamentals of process control, transducers, signal processing, feedback loops, activators, and analog and digital controllers.

II. Curriculum Changes (see the attached curriculum sheet)

- Change MIT 1110 from 3 CH to MIT 1100 2 CH. The new course is more appropriate for the engineering technology field and program outcomes.
- Change the required MATH 1910 or MATH 1830 (3 CH) + MIT 1835 (1 CH) to the MATH 1845 (3 CH).
- Change MATH 1720 (3 CH) to MATH 1730 (5 Cr).
- Change MIT 4610 (1 CH) to MIT 4615 (1 CH).
- Add CHEM 3710 to the Technical Electives

BS Industrial Technology (BSIT)

Leading to the Bachelor of Science Industrial Technology (BSIT) Degree

| Freshman Year | | Sem. Hrs. | Sophomore Year | | Sem. Hrs. |
|--|---|--------------|--|---|--------------|
| ENGR 1110 | Engineering Graphics | 2 | ECON 2010 | Principles of Microeconomics | 3 |
| ENGR 1120² | Programming for Engineers | 2 | ENGL 2130 , 2230 , or 2330 | | 3 |
| CHEM 1010 OR CHEM 1110 | Introduction to Chemistry I General Chemistry I | 4 | HIST 2010 | American History I | 3 |
| ENGL 1010 | Writing I | 3 | HIST 2020 | American History II | 3 |
| ENGL 1020 | Writing II | 3 | PC 2500 or SPCH 2410 | | 3 |
| MIT 1100 | Introduction to Manufacturing Engineering Technology | 2 | PHYS 2010 OR PHYS 2110 + 2111 | Algebra-based Physics I Calculus-based Physics + Lab | 4 |
| MATH 1730 | Pre-calculus mathematics | 5 | PHYS 2020 OR PHYS 2120 + 2121 | Algebra-based Physics II Calculus-based Physics II + Lab | 4 |
| MATH 1845 | Technical Calculus | 3 | MIT 2000 | Occupational Safety | 2 |
| Humanities/Fine Arts Electives | | 6 | PSY 2010 | General Psychology | 3 |
| ENGR 1020¹ | Connections to Engineering & Technology | 1 | MIT 2400 | Statics and Strength of Materials | 3 |
| | | | MIT 2063 | Metal Manufacturing Technology | 3 |
| Total | | 31 | Total | | 34 |

| Junior Year | | Sem. Hr. | Senior Year | | Sem. Hr. |
|---------------------------|--|-------------|----------------------------------|---|-------------|
| BMGT 3510 | Management and Organization Behavior | 3 | ACCT 3720 | Survey of Accounting | 3 |
| ECON 3610 | Business Statistics I | 3 | Business Elective ³ | | 3 |
| ME 3110 | Physical Metallurgy and Heat Treatment | 3 | DS 3520 | Operations Management | 3 |
| MIT 3000 | Principles of Metal Casting | 2 | MIT 4200 | Industrial Electronics | 3 |
| MIT 3060 | Computer Numerical Control Machining Practices | 3 | MIT 4310 | Plant Layout and Materials Handling | 3 |
| MIT 3130 | Maintenance Technology I | 3 | MIT 4615 | Engineering Ethics & Professionalism | 1 |
| MIT 3200 | Applied Electricity and Electronics | 3 | MIT 4620 | Industrial Projects | 3 |
| MIT 3301 | Cad for Technology | 2 | Technical Electives ⁴ | Technical Electives ⁴ | 6 |
| MIT 3403 | Applied Machine Elements | 3 | | | |
| MIT 3700 | Manufacturing Cost Estimating | 2 | | | |
| MIT 3710 | Methods Design | 2 | | | |
| MIT 3730 | Quality Assurance | 2 | | | |
| Total | | 31 | Total | | 25 |

¹ This course not included in 120 hour curriculum.

² MATLAB

³ **Business Electives:** BMGT 3630, BMGT 4520, DS 3620, DS 3540, FIN 3210, LAW 3810 or MKT 3400.

⁴ **Technical Electives:** MIT 3010, 3080, 3460, 3560, 4010, 4060, 4140, 4210, 4220, 4300, 4400, 4430, 4450, 4500, 4990, **CHEM 3710**, and ME 4430.

Motion. Dr. Elsayy moved to approve the changes effective Summer 2012. The motion was seconded by Dr. Talbert and carried.

12. Approval of Course Changes from the Department of Curriculum & Instruction

In a memorandum dated March 8, 2012, approval was requested for the following:

Course changes:

Additions:

ECSP 4871 Residency 1 (5 hrs.)

ECSP 4872 Professional Residency II Seminar I (5 hrs.)

ECSP 4881 Residency II (10 hrs)

ECSP 4882 Professional Residency II Seminar II (2 hrs.)

Motion. Dr. Gore moved to approve the changes effective Fall 2013. The motion was seconded by Dr. Robinson and carried.

13. Election of 2012-13 Chairperson

Dr. Barnes, representing the nomination committee, nominated Dr. Gore for the 2012-13 chairperson. Dr. Kemp moved that nominations cease and that Dr. Gore be elected by acclamation. The motion was seconded by Dr. Eisen and carried.

14. Other such matters

Approval of Catalog revisions for the Bachelor of Music, concentration in Performance from the Department of Music and Art

In a memorandum dated February 28, 2012, approval was requested for the following:

2012-2013 Catalog Revision

Changes (indicated in red) are in addition to those approved at February 16, 2012 Curriculum Committee meeting.

Music Performance

Admission to the performance option is . . . Students in this option select an emphasis in composition, instrumental, jazz, music business, piano or vocal performance.

Students majoring in any performance option must:

1. Enroll for private study in the major performing medium each semester of full-time residency. Four semesters of private study must be at the 3000 level.
2. Participate each semester in the Ensemble(s) of Record specific to the student's instrument:

Lower Division (Freshman and Sophomore)

- a. Piano: Concert Choir, University Bands, or University Orchestra

- b. Strings: University Orchestra
- c. Voice: Concert Choir or Chorale
- d. Wind/Percussion:
 - Fall – Marching Band
 - Spring – Symphony Band or Concert Band as assigned by audition

Upper Division (Junior and Senior)

NOTE: Composition students follow the Lower Division Ensemble of Record requirement throughout their curriculum. Music Business and Vocal option students in the Upper Division will enroll in at least one ensemble per semester from the table below as assigned by their advisors. Enrollment in a minimum of two (2) ensembles per semester is required of Upper Division performance majors in the Instrumental, Jazz and Piano options as follows.

- a. Piano: The appropriate major ensemble (instrumental or vocal) plus Chamber Music as assigned by the piano coordinator.
- b. Strings: University Orchestra and Chamber Music
- c. Voice: Chorale or Concert Choir
- d. Wind/Percussion:
 - Jazz: Jazz Ensemble plus Symphony band or Wind Ensemble
 - Music Business: Wind Ensemble (fall) and Symphony Band (spring)
 - All other non-Jazz: Wind Ensemble (fall) and Symphony Band (spring) plus University Orchestra or Bryan Symphony Orchestra, or Jazz Ensemble as assigned by the advisor.

Motion. Mr. LaBar moved to approve the change. The motion was seconded by Dr. Kemp and carried.

Dr. Eisen extended a thank you to Dr. Laurila for her service as chairperson.

The meeting was adjourned.