Special Programs • Combined Degree Programs

Special Programs

A great university must, while retaining the traditional programs at the heart of a modern education, expand beyond them to meet the wide-ranging needs of its students. FDU offers combined degree programs, allowing students to earn undergraduate and graduate degrees in less time than traditional routes; honors programs for students of top academic abilities; overseas campuses where students learn about other cultures while studying their academic disciplines; special degree-granting programs for adult learners; Reserve Officers' Training Corps programs; preprofessional degree options; and internships and cooperative studies offered in conjunction with business and industry, which offer students experience in the working world of their chosen fields.

Combined Degree Programs

The University, keeping in mind the needs and aspirations of its best students, offers a variety of programs specially tailored to bring out the best in them.

Several programs allow students to combine graduate and undergraduate degrees in less time than it would take if each were to be pursued separately. They include:

Baccalaureate/Master

- Bachelor of Arts/Master of Public Administration (five years), see page 207;
- Bachelor of Arts or Science/Master of Arts in Teaching combined degree (five years), see page 208;
- Bachelor of Arts or Science/Master of Arts in Teaching with a Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education (five years), see page 210;
- Bachelor of Arts or Science/Master of Arts in Teaching with a Dual Certification in Elementary or Secondary Education and English as a Second Language (five years), see page 213;
- Bachelor of Arts in communication studies/Master of Arts in communication, (accelerated) see page 214;
- Bachelor of Arts in creative writing/ Master of Fine Arts in creative writing, see page 215;
- Bachelor of Arts in criminal justice/
 Master of Arts in criminal justice, see page 215.
- Bachelor of Arts in criminology/
 Master of Arts in criminal justice, see page 215;
- Bachelor of Arts in film and animation/Master of Arts in animation, see page 216:
- Bachelor of Arts in film and animation/Master of Fine Arts in animation (accelerated), see page 217;
- Bachelor of Arts in history/Master of Public Administration (five years), see page 218.
- Bachelor of Arts in political science/ Master of Arts in criminal justice (five years), see page 218;
- Bachelor of Arts in political science/ Master of Arts in political science (five years), see page 219;

- Bachelor of Arts in political science/ Master of Public Administration (five years), see page 220;
- Bachelor of Arts in psychology/ Master of Arts in forensic psychology (five years), see page 221;
- Bachelor of Arts in psychology/ Master of Arts in general/theoretical psychology (five years), see page 222;
- Bachelor of Arts in psychology/ Master of Arts in industrial/organizational psychology (five years), see page 223;
- Bachelor of Arts in psychology/
 Master of Social Work with New York University (five years), see page 224;
- Bachelor of Arts in sports administration/Master of Sports Administration (five years), see page 225;
- Bachelor of Science in accounting/
 Master of Science in accounting (five years), see page 227;
- Bachelor of Science in accounting/ Master of Business Administration see page 228:
- Bachelor of Science in biochemistry/ Master of Science in applied clinical nutrition with School of Health Sciences and Education, New York Chiropractic College (five years), see page 228;
- Bachelor of Science in biochemistry/ Master of Science in chemistry with a concentration in pharmaceutical chemistry (five years), see page 229;
- Bachelor of Science in biochemistry/ Master of Science in cosmetic science (five years), see page 230;
- Bachelor of Science in biology/Master of Science in acupuncture and oriental medicine with Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College (five years), see page 232;

- Bachelor of Science in biology/Master of Science in biology (five years), see page 233;
- Bachelor of Science in business administration or entrepreneurship or finance or management or marketing/Master of Business Administration in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management, see page 234;
- Bachelor of Science in business administration or entrepreneurship or finance or management or marketing/Master of Science in accounting or supply chain management or taxation, see page 234;
- Bachelor of Science in chemistry/ Master of Science in chemistry with a concentration in pharmaceutical chemistry (five years), see page 235;
- Bachelor of Science in chemistry/ Master of Science in cosmetic science (five years), see page 237;
- Bachelor of Science in computer science/Master of Science in computer science (five years), see page 238;
- Bachelor of Science in computer science/Master of Science in management information systems (five years), see page 239;
- Bachelor of Science in Electrical Engineering/Master of Science in computer engineering (five years), see page 240;
- Bachelor of Science in Electrical Engineering/Master of Science in Electrical Engineering (five years), see page 241;
- Bachelor of Science in hotel and restaurant management/Master of Science in hospitality management studies (five years), see page 242;
- Bachelor of Science in information technology/Master of Science in computer science (five years), see page 243.

B.A./M.P.A.

Baccalaureate/Doctorate

- Bachelor of Science in biochemistry/ Doctor of Pharmacy with FDU School of Pharmacy and Health Sciences (seven years), see page 244;
- Bachelor of Science in biology/Doctor of Chiropractic with Life Chiropractic College West, Logan University, New York Chiropractic College, Palmer College of Chiropractic or University of Western States, (six years, four months), see page 249;
- Bachelor of Science in biochemistry or biology or chemistry/Doctor of Dental Medicine with Lake Erie College of Osteopathic Medicine School of Dental Medicine (eight years), see page 251;
- Bachelor of Science in biology/Doctor of Dental Medicine with Rutgers School of Dental Medicine, (seven years), see page 252:
- Bachelor of Science in biology/ Medical Doctor with Ross University School of Medicine, (eight years), see page 253:
- Bachelor of Science in biology/ Medical Doctor with Universidad Autónoma de Guadalajara School of Medicine (seven years), see page 255.
- Bachelor of Science in biology/Doctor of Osteopathic Medicine with Lake Erie College of Osteopathic Medicine (seven years), see page 255;
- Bachelor of Science in biochemistry or biology or chemistry/Doctor of Osteopathic Medicine with Lake Erie College of Osteopathic Medicine (eight years), see page 255;
- Bachelor of Science in biology/Doctor of Pharmacy with FDU School of Pharmacy and Health Sciences (seven years), see page 257;
- Bachelor of Science in biology/Doctor of Physical Therapy with Rutgers School of Health Professions, (six years), see page 262:
- Bachelor of Science in biology/Doctor of Podiatric Medicine with New York College of Podiatric Medicine (seven years), see page 263;
- Bachelor of Science in biology/Doctor of Veterinary Medicine with Ross University School of Veterinary Medicine, (seven years), see page 264;
- Bachelor of Science in chemistry/ Doctor of Pharmacy with FDU School of Pharmacy and Health Sciences (seven years), see page 266.

For more information on the array of accelerated programs available at FDU, please contact your college dean or school director.

Students matriculated into the accelerated five-year programs leading to the B.A./M.P.A., the B.A./M.A. and the B.S./M.S. degrees (except in accounting). The students receive their bachelor's degree upon completion of undergraduate requirements and are moved to a graduate program. Students in these curricula who require matriculation as graduate students may request conferral of the baccalaureate degrees upon completion of 120-123 credits (121 credits for Silberman College of Business) and the B.A. or B.S. requirements. The degree will then be awarded in accordance with normal University procedures. Students electing this option are advised that they may become ineligible for certain benefits upon achieving graduate-student status.

Students matriculated into the five-year programs leading to the M.B.A. (4+1) or M.S. in supply chain management (4+1) or the M.A.T. normally complete their undergraduate programs and receive their baccalaureate degrees before entering the graduate portion of the program.

B.A./M.P.A. Five-year Program

Undergraduates who take a major either in history or in political science may, during their junior year, apply to the Master of Public Administration program offered by the School of Public and Global Affairs.

Students who apply and gain admission to the M.P.A. program take three M.P.A. courses (PADM6602 Budgeting and Finance, PADM6603 Public Policy Administration and PADM6680 Information Technology Management) as free electives.

Besides counting toward the B.A., the credits earned in these three graduate courses will count toward the 39 credits that the M.P.A. requires. For the B.A., all University College general education requirements (pages 128–129) and all requirements pertaining to the undergraduate major (history, page 173; political science, pages 198–199) must be satisfied. For the Metropolitan Campus, go to page 218 for the B.A. in history/M.P.A. combined degree and page 220 for the B.A. in political science/M.P.A. combined degree.

B.A. or B.S./M.A.T. QUEST Teacher Preparation

B.A. or B.S./M.A.T. QUEST Teacher Preparation

Five-year Program

The QUEST (*QU*ality in *E*ducation, Schools and *T*eaching) program is offered by the Peter Sammartino School of Education at the Florham Campus, Madison, New Jersey, and the Metropolitan Campus, Teaneck, New Jersey.

The program is open to students who wish to be certified to teach at the early childhood (P–3), elementary or secondary-school level in the area of their liberal arts or science major or in English as a Second Language (ESL). All tracks result in the B.A. or B.S. degree in a liberal arts/science major with graduate-level advanced course work toward a Master of Arts in Teaching (M.A.T.) degree. See below and pages 63 and 131 for additional information.

Students may select a QUEST program in general education (regular classroom teacher) at the P–3, elementary or secondary level or in English as a Second Language (ESL). QUEST also offers the opportunity to select a dual certification program in early childhood (P–3), elementary (K–6) or secondary (7–12) and Teacher of Students with Disabilities (TSD). Students desiring the dual certification program need to join QUEST in their freshman year.

QUEST also offers the opportunity to select a dual certification program in elementary education (K–6) or secondary education (7–12) with a second certification in English as a Second Language. Students desiring the dual certification program in elementary or secondary education and ESL need to join QUEST in their freshman year. These students will need to complete three courses after their fifth year in the program to finish the ESL certification.

QUEST Program

Students typically enter the program in their freshman year. FDU students and admitted transfer students may enroll in QUEST in their sophomore or junior years, subject to an interview with the QUEST adviser, a review of transcripts and meeting QUEST program admissions and matriculation requirements.

Admission and matriculation in the QUEST program are as follows:

• 60 earned credits;

- CGPR of 3.00 or greater; and
- Pass the new Praxis I CORE Battery, which consists of three tests in basic skills as follows:
- 1. Core Academic Skills for Educators: Reading
- 2. Core Academic Skills for Educators: Writing
- 3. Core Academic Skills for Educators: Mathematics

Students are required to take and pass the CORE Battery by the end of their sophomore year to continue in the QUEST program. Juniors seeking admission to QUEST must take and pass the CORE Battery during their first semester in the program. All three exams must be passed for matriculation. Students who do not pass all three exams may be restricted from taking education (EDUC) courses. Students may be exempted from the CORE Battery if they meet one of the following alternatives:

- SAT (if taken between April 1, 1995, to February 28, 2016): Reading 560; Mathematics 540
- SAT (if taken on or after March 1, 2016): Reading 610; Mathematics 570
- ACT (if taken on or after August 28, 1989): English 23: Mathematics 23
- If a candidate completed and passed the Pre-professional Skills Test (PPST/Praxis I) prior to June 2014, the School of Education will accept passing scores on those exams to satisfy the basic skills requirement (passing scores on the PPST are as follows: Reading 175, Mathematics 174, Writing 173).

In addition to the academic study listed below, beginning in the first year, the program offers extensive field experiences in select public schools.

Faculty advisers work closely with students, individually and/or in groups, to provide guidance as students complete their programs of study.

Program Outline

1. Students must satisfy all general education requirements and specific departmental requirements for their liberal arts/science major in order to be eligible for a B.A. or B.S. degree in their area of specialization. Students in the QUEST program must major in a liberal arts/science discipline and will take from 30 to 31 credits in education as free electives as undergraduates. These credits satisfy the requirement for a "minor." All QUEST students major-

ing in psychology, sociology or humanities are required to have a minor (15–18 credits) in a content area and/or a middle-school content endorsement.

- 2. Students must continue to meet grade point requirements (3.00) throughout their time in the QUEST program.
- 3. After 60 earned credit hours, students may be formally matriculated into the QUEST program. To matriculate, a student must have a 3.00 cumulative grade point ratio and a passing score on the CORE Battery exams in reading, writing and mathematics as described on pages 130-131. All three exams must be passed (for all majors and at all grade-certification levels). Students should take the CORE Battery in their freshman or sophomore year. Students who have 60 credits and have not passed all three sections of the CORE Battery will be restricted in the number of education courses they may take until they pass all three exams.
- 4. Students will be advised when to take their Content Knowledge Praxis II exams. They will also be advised as to the current required exam(s) for the certification sought. The Praxis II exam is needed to obtain New Jersey State certification.
- 5. At the end of four years, students who have met all requirements will be eligible for a B.A. or B.S. degree and will have up to 15 graduate credits towards their Master of Arts in Teaching degree (which requires a total of 36 graduate credits - 40 credits for the dual certification program). Students will complete their Apprenticeship (student) Teaching in their fifth year. Upon completion of the Apprenticeship Teaching, students will have met eligibility requirements for teacher certification and will have at least 23 graduate credits towards the M.A.T. Students may decide to complete the remaining graduate courses leading to an M.A.T. in the fifth year or thereafter or to pursue only graduate-level courses to complete their teaching certification without the master's degree. (A master's degree is not required for certification in New Jersey.) A third option would be not to continue in the fifth year in the School of Education.
- 6. New Jersey teacher certification requires 3 credits in biology, physiology or health. The courses also may be taken to satisfy college core requirements (foundations and disciplinary perspectives) or the liberal arts/science required courses or electives.

B.A. or B.S./M.A.T. QUEST Teacher Preparation

7. In order to complete the Master of Arts in Teaching program in five years, students may need to take courses in summer and winter sessions in years three through five, depending upon their particular liberal arts/science program requirements.

8. In addition to required courses at the graduate level for the M.A.T. program, students may choose electives from one area of specialization, i.e., English as a Second Language (ESL), special education (up to 6 credits if not in the dual certification program), instructional technology; or they may choose a variety of electives from those available. It is recommended that students seeking two certifications focus their graduate electives in a specific area of certification for their second certificate.

QUEST Program Sequence

(Note: All students follow the course sequence in years one and two and specialize in early childhood (P–3), elementary, ESL or secondary education in years three, four and five.) Registration in all courses and any substitutions require the adviser's approval. Sequence may vary depending on adviser's recommendation.

Year 1 Credits
EDUC1108
Seminar in Professional Practice I:
The Teacher's Role in School
and Community3
EDUC2401
Field Experience I1
Total4
Year 2
EDUC2209
Seminar in Professional Practice II:
Teachers as Educational Leaders3
EDUC2402
Field Experience II1
EDUC3309
Seminar in Professional Practice III:
The Functions of Teaching3
Total7
Notes: (1) Graduate-level courses, marked with asterisks (*), are taken in years three and four in elementary or secondary spe-

cializations for dual undergraduate/graduate credit (maximum 15 credits).

(2) Prerequisites for courses in years three

Professional Practice I: The Teacher's Role

Seminar in Professional Practice II: Teachers

in School and Community, EDUC2209

Seminar in Professional Practice III: The Functions of Teaching, EDUC2401 Field

as Educational Leaders, EDUC3309

and four: EDUC1108 Seminar in

rience II. (3) Refer to Graduate Studies Bulletin for graduate course descriptions. (4) Basic course sequence in years two, three and four may vary slightly depending upon individual students. Early Childhood (P-3) Specialization Year 3 Credits EDUC3403 EDUC6818 Language Development and Literacy I*.....3 EDUC6819 Language Development and Literacy II*.....3 EDUC6820 Problem-based Strategies for Elementary Mathematics*.....3 Total.....11 Year 4 EDUC3404 Field Experience IV: Applied Field Research.....2 **EDUC6852** Curriculum Development and Assessment for the Pre-school Family and Community in Education*... 3 Total.....8 Year 5 EDUC6575 Apprenticeship Teaching*......6 EDUC6583 EDUC6584 Computers as a Teacher's Aid: Curriculum and Instruction*......3 EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders*......3 EDUC6825 Apprenticeship Teaching Seminar*......2 EDUC7812 Final Project*.....2 Total.....21 Elementary Specialization Year 3 **EDUC3403** EDUC6818 Language Development and Literacy I*.....3 *Graduate education classes.

Experience I and EDUC2402 Field Expe-

Credits
EDUC6819 Language Development and Literacy II*
EDUC6820 Problem-based Strategies for
Elementary Mathematics*
Year 4 EDUC3404
Field Experience IV: Applied Field Research
EDUC6893 Evaluation and Measurement
in Education*
Resolution for Educators*
Year 5 EDUC6575
Apprenticeship Teaching*6 EDUC6583
Advanced Clinical Practice*2 EDUC6584
Computers as a Teacher's Aid: Curriculum and Instruction*
EDUC6740 Introduction to Students with
Disabilities and Autistic Spectrum Disorders*
EDUC6825 Apprenticeship Teaching Seminar*2
EDUC7812 Final Project*
Total21
ESL Specialization Year 3
EDUC3403 Field Experience III
Second Language Acquisition: Methods and Curriculum*
EDUC6654
Literacy Development for Second-language Learners*
Year 4 EDUC3404
Field Experience IV: Applied Field Research2
EDUC6574 Applied Linguistics for Language Teachers*
EDUC6631 Assessment in the Second-
language Classroom*
*Graduate education classes.

B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education

Credits
EDUC7763
Human Relations and Conflict
Resolution for Educators*3
Total11
Year 5
EDUC6575
Apprenticeship Teaching*6
EDUC6583
Advanced Clinical Practice*2
EDUC6584
Computers as a Teacher's Aid:
Curriculum and Instruction*3
EDUC6661
The Multicultural Classroom* 3
EDUC6740
Introduction to Students with
Disabilities and Autistic
Spectrum Disorders*3
EDUC6825
Apprenticeship Teaching Seminar*2
EDUC7812
Final Project*2
Total21
Tota121
Secondary Specialization
Year 3
EDUC3403
Field Experience III
EDUC6562, EDUC6563, EDUC6566,
EDUC6568, EDUC6569, EDUC6570
Appropriate Methods and
Curriculum Courses in Discipline*3
EDUC6651
Effective Reading Instruction*
Total8
Tota10
Year 4
Credits
EDUC3404
Field Experience IV: Applied
Field Research2
EDUC6584
Computers as a Teacher's Aid:
Curriculum and Instruction*3
EDUC6893
Evolution and Marrows
Evaluation and Measurement
in Education*3
in Education*3 EDUC7763
in Education*3 EDUC7763 Human Relations and Conflict
in Education*3 EDUC7763

Year 5	Credits
EDUC6575	
Apprenticeship Teaching*	6
EDUC6583	
Advanced Clinical Practice*	2
EDUC6740	
Introduction to Students with	
Disabilities and Autistic	
Spectrum Disorders*	3
EDUC6825	
Apprenticeship Teaching Seminar	*2
EDUC7812	
Final Project*	
EDUC Electives*	6
Tota	al21
Notes: (1) Students who earn their	

Notes: (1) Students who earn their B.A./B.S. degrees at the end of year four are eligible for state teacher certification upon completion of Advanced Clinical Practice, Apprenticeship Teaching and Apprenticeship Teaching Seminar, if all appropriate education prerequisites have been completed (refer to section on certification, pages 63 and 131).

(2) Students are eligible for: the B.A./B.S. degree upon completion of the required 120 credits and the M.A.T. degree upon completion of 36 approved graduate credits.

(3) All candidates starting clinical practice (student teaching) in academic year 2018–2019 or thereafter must complete at least 50 hours of clinical experience (field experience) in a preschool, elementary, middle and/or secondary school setting prior to clinical practice. Clinical practice will occur over a two-semester period within a single school, with at least 175 hours prior to the final, full-time semester of student teaching.

B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education

Five-year Program

The dual certification in early childhood (P–3), elementary (K–6) or secondary (7–12) and special education is offered by the Peter Sammartino School of Education. The program is offered to students who wish to be certified to teach in early childhood, elementary or secondary and special education. Students will earn a B.A. or B.S. degree in a liberal arts/science major with graduate-level advanced course work toward a Master of Arts in Teaching (M.A.T) degree. See below and pages 208–210 for additional information.

Dual Certification Program

This program is open to students who enter as freshmen beginning September 2013 and thereafter. Because the dual certification courses begin in the freshman year, students may not be able to join this program as upperclassmen. Such cases will be evaluated on an individual basis with the program director. In addition to the academic study listed below, beginning in the first year, the program offers extensive field experiences in select public schools. Faculty advisers work closely with students, individually and/or in groups, to provide guidance as students complete their programs of study. Students admitted to this select program will function as a cohort for their education courses.

The curriculum is designed to offer the option of discontinuing study in education at any time during the first four years without losing any time or credit toward the liberal arts or science baccalaureate degree.

Program Outline

Students must satisfy all college core requirements and specific departmental requirements for their liberal arts/science major in order to be eligible for a B.A. or B.S. degree in their area of specialization.

Students in the QUEST program must major in a liberal arts/science discipline. Students majoring in psychology, humanities or sociology are required to have a minor in a content area (English, history, mathematics or science).

*Graduate education classes.

B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education

Admissions and matriculation requirements for the QUEST Dual Certification program are the same as for all QUEST programs (see Admissions and Matriculation requirements, pages 130–131). Students in-terested in the Dual Certification program **must** enter as freshmen or first-semester sophomores.

At the end of four years, students who have met all requirements will be eligible for a B.A. or B.S. degree and will have up to 15 credits toward their Master of Arts in Teaching degree (which requires a total of 40 graduate credits). Typically, students will complete their Apprenticeship (student) Teaching in their fifth year. Upon completion of the Apprenticeship Teaching, students will have met eligibility requirements for teacher certification (general education - first certificate) and will have at least 26 graduate credits toward the M.A.T. Students may decide to complete the remaining graduate courses leading to an M.A.T. in the fifth year or thereafter or to pursue only graduate-level courses to complete their teaching certification without a master's degree. Students must complete the entire program to receive their Teacher of Students with Disabilities (TSD) certification. The state of New Jersey will not issue a TSD certificate as a first certificate. (A master's degree is not required for certification in New Jersey.). A third option would be not to continue in FDU's School of Education.

New Jersey teacher certification requires that 3 credits be taken in biology, physiology or health. These courses also may be taken to satisfy college core requirements or the liberal arts/science required courses or electives.

Eligibility for graduate courses in education in the third and fourth years will require that a student be fully matriculated in the QUEST program. Students must maintain a cumulative grade point ratio (CGPR) of 3.00 and must pass the required basic skills assessment (Praxis CORE Battery) as described on pages 130–131. Students who do not pass all three CORE Battery exams will be restricted in their education classes until these exams are passed.

In order to complete the Dual Certification program in five years, students may need to take courses in summer or winter sessions in years three through five, depending upon their particular liberal arts/science program requirements.

Dual Elementary, Early Childhood, Secondary and Special Education Program Sequence

Year 1 Credits
EDUC1108
Seminar in Professional Practice I:
The Teacher's Role in School
and Community3
EDUC2202
Development of Children with
and without Disabilities3
EDUC2401
Field Experience I1
Total7
Year 2
EDUC2207
Introduction to Special Education
and Students with Disabilities
including Autism Spectrum
Disorder3
EDUC2208
Classroom Management and
Positive Behavioral Supports3
EDUC2209
Seminar in Professional Practice II:
Teachers as Educational Leaders3
EDUC2402
Field Experience II
(special education setting –
resource room or self contained)1
EDUC3309
Seminar in Professional Practice III:
The Functions of Teaching3 Total13
Iotal13

Notes: (1) Graduate-level courses, marked with two asterisks (**), are taken in years three and four for dual undergraduate/graduate credit (maximum 15 credits).

- (2) Prerequisites for courses in years three and four are EDUC1108 Seminar in Professional Practice I: The Teacher's Role in School and Community, EDUC2401 Field Experience I, EDUC2402 Field Experience II, EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders, EDUC3309 Seminar in Professional Practice Teaching III: The Functions of Teaching and prerequisite special-education courses (EDUC2204 Survey of Students with Special Needs, EDUC2205 Classroom Management and EDUC2206 Foundation of Special Education for dual certification program).
- (3) Refer to *Graduate Studies Bulletin* for graduate course descriptions.

Elementary Specialization (Elementary + TSD)

Year 3	Credits
EDUC3403	
Field Experience III	2
EDUC6818	
Language Development and	
Literacy I**	3
EDUC6819	
Language Development and	
Literacy II**	3
EDUC7763	
Human Relations and Conflict	
Resolution for Educators**	3
	l11
Year 4	
EDUC3404	
Field Experience IV: Applied	
Field Research	3
EDUC6792	
Assistive Technology for the	
Inclusive Classroom**	3
EDUC6797	
Multisensory Mathematics	
Instruction for Students with	
Disabilities**	3
EDUC6820	
Problem-based Strategies for	
Elementary Mathematics**	3
EDUC6893	
Evaluation and Measurement in	
Education**	3
Tota	l15
Year 5	
EDUC6575	
Apprenticeship Teaching**	6
EDUC6583	
Advanced Clinical Practice**	2
EDUC6747	
Multisensory Reading Instruction	
for Students with Reading	
Disabilities**	3
EDUC6750	
Teaching in an Inclusive Classroom	**3
EDUC6792	
Assistive Technology for the	
Inclusive Classroom**	3
EDUC6825	
Apprenticeship Teaching Seminar*	*2
EDUC7812	
Final Project**	2
	121

Notes: (1) Graduate-level courses, marked with two asterisks (**), are taken in years three and four for dual undergraduate/graduate credit (maximum 15 credits).

B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education

(2) Prerequisites for courses in years
three and four are EDUC1108 Seminar in
Professional Practice I: The Teacher's Role
in School and Community, EDUC2401
Field Experience I, EDUC2402 Field
Experience II, EDUC2209 Seminar in
Professional Practice II: Teachers as
Educational Leaders, EDUC3309 Seminar
in Professional Practice Teaching III: The
Functions of Teaching and prerequisite
special-education courses (EDUC2204
Survey of Students with Special Needs,
EDUC2205 Classroom Management and
EDUC2206 Foundation of Special
Education for dual certification program).
(3) Refer to Graduate Studies Bulletin
for graduate course descriptions.

Secondary Specialization (Secondary + TSD)

Year 3 Credits
EDUC3403
Field Experience III2
EDUC6651
Effective Reading Instruction3
Appropriate Secondary
Methodology Course
(EDUC6500 level)
Total8
Year 4
EDUC3404
Field Experience IV: Applied
Field Research
EDUC6792
Assistive Technology for the
Inclusive Classroom**3
EDUC6797
Multisensory Mathematics
Instruction for Students with
Disabilities**
EDUC6893
Evaluation and Measurement in
Education**
EDUC7763
Human Relations and Conflict
Resolution for Educators**3
Total14

Year 5 Credits
EDUC6575
Apprenticeship Teaching**6 EDUC6583
Advanced Clinical Practice**
Multisensory Reading Instruction
for Students with Reading Disabilities**3
EDUC6750
Teaching in an Inclusive Classroom**3 EDUC6825
Apprenticeship Teaching Seminar**2 EDUC7812
Final Project**2
EDUC Graduate Elective
Total21
P–3 Early Childhood Specialization
(Early Childhood + TSD) Year 3
EDUC3403
Field Experience III2
EDUC6818
Language Development and
Literacy I**3 EDUC6819
Language Development and
Literacy II**3
EDUC6820
Problem-based Strategies for
Elementary Mathematics**
Year 4
EDUC3404
Field Experience IV: Applied Field Research
EDUC6792
Assistive Technology for the
Inclusive Classroom**3 EDUC6797
Multisensory Mathematics
Instruction for Students with
Disabilities**3
EDUC6852
Curriculum Development and
Assessment for the Pre-school
to Third-grade Classroom**
EDUC6853 Family and Community in
Education**
Total14

Year 5 Credits
EDUC6575
Apprenticeship Teaching**6
EDUC6583
Advanced Clinical Practice**
EDUC6747
Multisensory Reading Instruction
for Students with Reading
Disabilities**3
EDUC6750
Teaching in an Inclusive Classroom**3
EDUC6793
Education of Students with
Moderate to Severe Disabilities** 3
EDUC6825
Apprenticeship Teaching Seminar**2
EDUC7812
Final Project**2
Total21

Notes: (1) Students who earn their B.A. or B.S. degrees at the end of year four are eligible for state teacher certification upon completion of EDUC6575 Apprenticeship Teaching and EDUC6825 Apprenticeship Teaching Seminar if all appropriate education prerequisites have been completed (refer to section on certification, pages 63–64 and 131).

- (2) Students are eligible for special education certification upon completion of their B.A. or B.S. degrees and their elementary, early childhood or secondary education certification and completion of the required special education courses. In New Jersey, special education certification will not be given without an accompanying general education (elementary, early childhood or secondary) certification.
- (3) Students are eligible for B.A. or B.S. degree upon completion of the required 120 credits and the M.A.T. degree upon completion of 40 approved graduate credits. Please note that some undergraduate majors such as mathematics, biology and chemistry may require more than 120 credits for the B.A. or B.S.
- (4) All candidates starting clinical practice (student teaching) in academic year 2018–2019 or thereafter must complete at least 50 hours of clinical experience (field experience) in a preschool, elementary, middle and/or secondary school setting prior to clinical practice. Clinical practice will occur over a two-semester period within a single school, with at least 175 hours prior to the final, full-time semester of student teaching.

Year 4

B.A. or B.S./M.A.T. Dual Certification in Elementary or Secondary Education and English as a Second Language

B.A. or B.S./M.A.T. Dual Certification in Elementary or Secondary Education and English as a Second Language

Five-year Program

The dual certification in elementary or secondary and English as a Second Language (ESL) is offered by the Peter Sammartino School of Education. The program is offered to students who wish to be certified to teach in elementary or secondary schools and ESL settings. Students will earn a B.A. or B.S. degree in a liberal arts/science major with graduate-level advanced course work toward a Master of Arts in Teaching (M.A.T) degree. See below and pages 208–210 for additional information.

Program Outline

Students must satisfy all college core requirements and specific departmental requirements for their liberal arts/science major in order to be eligible for a B.A. or B.S. degree in their area of specialization.

Students in the QUEST program must major in a liberal arts/science discipline. Students majoring in psychology, humanities or sociology are required to have a minor in a content area (English, history, mathematics or science).

Admissions and matriculation requirements for the QUEST Dual Certification program are the same as for all QUEST programs (see Admissions and Matriculation requirements, pages 130–131). Students interested in the Dual Certification program **must** enter as freshmen or first-semester sophomores.

At the end of four years, students who have met all requirements will be eligible for a B.A. or B.S. degree and will have up to 15 credits toward their Master of Arts in Teaching degree (which requires a total of 36 graduate credits). Typically, students will complete their Apprenticeship (student) Teaching in their fifth year. Upon completion of the Apprenticeship Teaching, students will have met eligibility requirements for teacher certification (general education - first certificate) and will have earned at least 36 graduate credits toward the M.A.T., earning the M.A.T. degree. Students must complete the entire program to receive their English as a Second Language (ESL) Certification. This program requires three additional courses

to be completed in addition to the M.A.T., outside the five-year sequence, either in summer, winter or the semesters following the completion of the fifth year. The state of New Jersey will not issue an ESL license without completion of the course work.

New Jersey teacher certification requires that 3 credits be taken in biology, physiology or health. These courses also may be taken to satisfy college core requirements or the liberal arts/science required courses or electives.

Eligibility for graduate courses in education in the third and fourth years will require that a student be fully matriculated in the QUEST program. Students must maintain a cumulative grade point ratio (CGPR) of 3.00 and must pass the required basic skills assessment (Praxis CORE Battery) as described on pages 130–131. Students who do not pass all three CORE Battery exams will be restricted in their education classes until these exams are passed.

Elementary or Secondary Education and ESL Program Sequence

Credits

Year 1

EDUC1108
Seminar in Professional Practice I:
The Teacher's Role in School
and Community3
EDUC2401
Field Experience I1
Total4
Year 2
EDUC2209
Seminar in Professional Practice II:
Teachers as Educational Leaders 3
EDUC2402
Field Experience II 1
EDUC3309
Seminar in Professional Practice
III: The Functions of Teaching 3
Total7
Elementary Specialization
Year 3
EDUC3403
Field Experience III2
EDUC6818
Language Development and
Literacy I3
EDUC6820
Problem-based Strategies for
Elementary Mathematics3
Total8

rear 4 Credits
EDUC3404
Field Experience IV: Applied
Field Research2
EDUC6654
Literacy Development for
Second-language Learners3
EDUC6893
Evaluation and Measurement in
Education
EDUC7763
Human Relations and Conflict
Resolution for Educators3
Total11
Year 5
EDUC6575
Apprenticeship Teaching6
EDUC6583
Advanced Clinical Practice2
EDUC6584
Computers as a Teacher's Aid:
Curriculum and Instruction3
EDUC6661
The Multicultural Classroom3
EDUC6740
Introduction to Students with
Disabilities and Autistic
Spectrum Disorders
EDUC6825
Apprenticeship Teaching Seminar2
EDUC7812
Final Project2
Total21
Additional Course Work
EDUC6565
Second Language Acquisition:
Methods and Curriculum 3
EDUC6574
Applied Linguistics for
Language Teachers3
EDUC6631
Assessment in the Second-
language Classroom 3
Total9
10111111111
Secondary Specialization
Year 3
EDUC3403
Field Experience III
EDUC6651
Effective Reading Instruction
or
EDUC6654
Literacy Development for
Second-language Learners3
Methods in Respective Field
Course (EDUC6500 level)
Total8

Credits

B.A. in Communication Studies/M.A. in Communication

Year 4 Credits
EDUC3404
Field Experience IV: Applied
Field Research (ESL setting)2
EDUC6565
Second Language Acquisition:
Methods and Curriculum 3
EDUC6893
Evaluation and Measurement in
Education3
EDUC7763
Human Relations and Conflict
Resolution for Educators3
Total11
Year 5
EDUC6575
Apprenticeship Teaching6
EDUC6583
Advanced Clinical Practice2
EDUC6584
Computers as a Teacher's Aid:
Curriculum and Instruction3
EDUC6661
The Multicultural Classroom3
EDUC6740
Introduction to Students with
Disabilities and Autistic
Spectrum Disorders
EDUC6825
Apprenticeship Teaching Seminar 2
EDUC7812
Final Project
Total21
Additional Course Work
EDUC6574
Applied Linguistics for
Language Teachers3
EDUC6631
Assessment in the Second-
language Classroom
EDUC Graduate Elective
Total ^C

B.A. in Communication Studies/M.A. in Communication Accelerated Program

The accelerated Bachelor of Arts in communication studies/Master of Arts in communication program, offered by Maxwell Becton College of Arts and Sciences at the Florham Campus, allows students to complete both B.A. and M.A. with a combined degree load that is 9 credits less than that of the separate degrees.

By the start of their junior year, students who are interested in pursuing the five-year B.A. in communication studies/M.A. in communication program must: 1) have completed 64 credits of undergraduate course work including COMM2001 Perspectives on Communication Studies, COMM3018 Mass Communication and COMM3019 Global Communication and 2) have a cumulative grade point ratio of 3.00 or higher.

Transfer students must have completed a minimum of 60 undergraduate credits in an accredited two-year or four-year college or university, with a minimum of 9 credits in communication studies or equivalent courses. An applicant's academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the five-year B.A./ M.A. program.

By the end of the junior year, students applying for admission to the five-year B.A. in communication studies/M.A. in communication are expected to submit an application, personal statement, unofficial transcript and two letters of recommendation to the M.A. program director.

Applicants for the accelerated program are interviewed by the director of the graduate program.

Upon completion of their senior year, students will have earned a B.A. in communication studies, in the event they are not accepted or choose not to pursue the accelerated program.

Requirements for the B.A. in Communication Studies/M.A. in Communication

Students will complete a total of 141 credits: 120 credits for the Bachelor of Arts and 21 additional credits for the Master of Arts; 9 graduate credits will have been completed as part of the 120 credits toward the B.A.

Required Course Sequence

Senior Year – Undergraduate (9 credits)

The senior undergraduate year of all B.A./M.A. students is a qualifying year. Students must earn a B grade or better in each of the three required classes in order to qualify for the graduate year. Failure to earn B grades or better in each required class means that the student will not be allowed to continue into the graduate year. Instead, the student will graduate at the end of the senior year with a B.A. in communication studies.

Graduate Year (21 credits) Summer (3 credits)

MCOM7002

International Communication and Culture*

or
MCOM Context Course......3

MCOM Context Course......3

^{*}Offered at FDU's Wroxton College, United Kingdom campus.

B.A. in Creative Writing/M.F.A. in Creative WritingB.A. in Criminal Justice/M.A. in Criminal JusticeB.A. in Criminology/M.A. in Criminal Justice

B.A. in Creative Writing/ **M.F.A.** in Creative Writing

The B.A./M.F.A. in creative writing is a uniquely designed accelerated degree that provides outstanding undergraduate students in FDU's creative writing program the opportunity to begin work on their graduate degree as they enter their senior year. After graduating from the B.A. program, students continue in the low-residency M.F.A. program, and may complete their M.F.A. degree within 18 months.

The accelerated B.A./M.F.A. program offers students both a shorter time frame to earn their M.F.A. degree and significant cost savings by applying 12 credits of graduate course work toward undergraduate degree requirements. Scholarships and financial aid are available to eligible students

Undergraduate creative writing majors at FDU must apply to the accelerated B.A./M.F.A. program during their junior year by submitting a letter of interest in the program and a writing sample to writingmfa@fdu.edu. Applications will be evaluated on the basis of the writing sample and previous undergraduate work in creative writing.

Once accepted, creative writing students complete 12 credits of graduate course work during the senior year (6 credits in the first semester and 6 credits in the second semester), in the genre of their concentration: fiction, creative nonfiction, poetry, literary translation and writing for young adults and children.

For additional information, please contact René Steinke, director, at 973-443-8632 or writingmfa@fdu.edu.

B.A. in Criminal Justice/M.A. in Criminal Justice

The School of Criminal Justice, Political Science and International Studies offers a combined degree program that affords students the opportunity to combine their undergraduate and graduate studies. With the approval of their academic adviser and the program director, students can take up to three designated graduate courses that fulfill the requirements for both undergraduate and graduate degrees, thus accelerating completion of their Master of Arts in criminal justice.

Students opting for the combined degree program must meet the minimum admission requirements for students applying to the graduate program in criminal justice as set forth in the current issue of the *Graduate Studies Bulletin*; the only exception of having obtained their baccalaureate degree.

It is recommended that students interested in the combined degree program declare their candidacy upon successful completion of 64 credits and/or upon entering their junior year; however, no later than having completed 90 undergraduate credits. This affords students the opportunity to collaborate with their adviser in the timely and appropriate selection of undergraduate and graduate courses.

To qualify for the combined program in criminal justice, students must possess and maintain a minimum 3.00 overall cumulative grade point ratio (CGPR), and a 3.25 grade point ratio (GPR) within the criminal justice major. Students in the combined degree program must maintain a minimum 3.00 GPR in the graduate courses for which they have been approved.

B.A. in Criminology/M.A. in Criminal Justice

The B.A. in criminology/M.A. in criminal justice combined degree program offers students the opportunity to combine their undergraduate studies in criminology with graduate studies in criminal justice. With the opportunity to take up to three designated graduate courses that fulfill both undergraduate and graduate requirements, students of this program are able to complete a Master of Arts in criminal justice in five years.

To qualify for the combined program, students must possess a 3.00 grade point ratio after earning 60 credits and apply to the combined program prior to earning 90 credits. Students will also need to submit two letters of recommendation to the director of the graduate criminal justice program.

This combined degree offers students the opportunity to partake in an accelerated master's program at a discounted tuition rate. The program combines the best of both criminology and criminal justice to prepare students for supervisory and leadership positions in law enforcement, courts, corrections, social service, private security, teaching and public policy.

Students will be afforded flexible class schedules and networking opportunities with criminal justice and public policy professionals, as well as credits for internships.

B.A. in Film and Animation/M.A. in Animation

B.A. in Film and Animation/ M.A. in Animation Accelerated Program

The School of the Arts on the Florham Campus offers a combined B.A. in film and animation/M.A. in animation degree that allows students to complete both the bachelor's and master's degrees in animation in five years with a combined load that is 12 credits less than that of separate degrees. Students may apply to this program at any time from their entry into the B.A. in film and animation program up until the beginning of their senior year of their undergraduate studies.

During the first three years, students who are interested in the five-year B.A. in film and animation/M.A. in animation program take undergraduate classes that are required of students in the B.A. in film and animation program (3D animation, video game animation or visual effects concentration). In the junior year of undergraduate studies, students in this program are required to submit a portfolio of their best work for review. At that time, the director of the program will notify the student as to whether or not the reviewing committee approves them to continue on in the combined B.A./M.A. degree program.

In the senior year of undergraduate studies, students in this program take 12 graduate-level ANIM credits as well as complete the remainder of their undergraduate courses. To apply graduate credits completed in the undergraduate senior year to the M.A. program, a grade of B or better is required upon which those credits will be applied to **both** the undergraduate and graduate degrees. If the student receives a grade of B- or less, those credits will only be applied to the undergraduate B.A. degree.

Transfer students must have completed all of the above-mentioned requirements, with no more than 60 credits included from an accredited college or university outside of Fairleigh Dickinson University.

Requirements for the B.A. in Film and Animation/M.A. in Animation

Students will complete a total of 144 credits: 120 credits for the Bachelor of Arts and 24 additional credits for the Master of Arts; 12 graduate credits will have been completed as part of the 120 credits toward the B.A.

Graduate Requirements Undergraduate Senior Year

The senior undergraduate year of all B.A./M.A. students is a qualifying year. Students must earn a grade of B or better in each of the four graduate-level courses in order to qualify for the graduate year. Failure to earn B grades or better in each graduate-level class means that the student will not be allowed to continue into the graduate year. Instead, the student will graduate at the end of the senior year with a B.A. in film and animation.

Graduate Year (3D Animation Concentration) (24 credits)

ANIM5300
Storytelling3
ANIM5400
Character Design3
ANIM6100
Digital Sculpting3
ANIM6150
3D Character Texturing3
ANIM6300
3D Character Animation 3
ANIM7000
Advanced 3D Character Animation3

Major Electives

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

Graduate Year (Video Game Animation Concentration) (24 credits)

Concentration/ (24 credits/
ANIM5400
Character Design3
ANIM5500
Digital 2D Animation3
ANIM6100
Digital Sculpting3
ANIM6400
3D Animation for Games 3
ANIM6600
Game Creation3
ANIM7500
Advanced Game Creation3

Major Electives

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

Graduate Year (Visual Effects Concentration) (24 credits)

(Credits
ANIM5300	
Storytelling	3
ANIM5500	
Digital 2D Animation	3
ANIM5600	_
Advanced 3D Layers in After Effect	ts [®] 3
ANIM5700	
Dynamic Effects and Particle	
Systems in After Effects [®]	3
ANIM5800	
Compositing in After Effects [®]	3
ANIM6350	
3D Particle Systems and Effects [®]	3

Major Electives

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

B.A. in Film and Animation/M.F.A. in Animation

B.A. in Film and Animation/ M.F.A. in Animation Accelerated Program

The School of the Arts on the Florham Campus offers a combined B.A. in film and animation/M.F.A. in animation degree that allows students to complete both the bachelor's and Master of Fine Arts degrees in animation in six years with a combined load that is 12 credits less than that of separate degrees. Students may apply to this program at any time from their entry into the B.A. in film and animation program up until the beginning of their senior year of their undergraduate studies.

During the first three years, students who are interested in the six-year B.A. in film and animation/M.F.A. in animation program take undergraduate classes that are required of students in the B.A. in film and animation program (3D character animation, video game animation or visual effects concentration). In the junior year of undergraduate studies, students in this program are required to submit a portfolio of their best work for review. At that time, the director of the program will notify the student as to whether or not the reviewing committee approves them to continue on in the combined B.A./M.F.A. degree program.

In the senior year of undergraduate studies, students in this program take 12 graduate-level ANIM credits as well as complete the remainder of their undergraduate courses. To apply graduate credits completed in the undergraduate senior year to the M.F.A. program, a grade of B or better is required upon which those credits will be applied to **both** the undergraduate and graduate degrees. If the student receives a grade of B- or less, those credits will only be applied to the undergraduate B.A. degree.

Transfer students must have completed all of the above-mentioned requirements, with no more than 60 credits included from an accredited college or university outside of Fairleigh Dickinson University.

Requirements for the B.A. in Film and Animation/M.F.A. in Animation

Students will complete a total of 168 credits: 120 credits for the Bachelor of Arts and 48 additional credits for the Master of Fine Arts; 12 graduate credits will have been completed as part of the 120 credits toward the B.A.

Graduate Requirements Undergraduate Senior Year

Credits

Graduate Two Years (3D Character Animation Concentration) (48 credits)

ANIM5300

Major Electives

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

Graduate Two Years (Video Game Animation Concentration) (24 credits)

ANIM5400	
Character Design	3
ANIM5500	
Digital 2D Animation	3
ANIM6100	
Digital Sculpting	3
ANIM6400	
3D Animation for Games	3

ANIM6600	
Game Creation	3
ANIM7500	
Advanced Game Creation	3
ANIM7525	
Virtual Reality	3
ANIM7600	
Video Game Team Project	3
ANIM7650	
Thesis I	3
ANIM7750	
Thesis II	3
ANIM7850	
Thesis III	3
ANIM7900	
Animation Career Preparation	3

Credits

Major Electives

ANIM5300

ANIM5500

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

Graduate Two Years (Visual Effects Concentration) (48 credits)

Storytelling......3

111 111113300
Digital 2D Animation3
ANIM5600
Advanced 3D Layers in After Effects [®] 3
ANIM5700
Dynamic Effects and Particle
Systems in After Effects [®] 3
ANIM5800
Compositing in After Effects [®]
ANIM6350
3D Particle Systems and Effects [®] 3
ANIM6700
Animating Fluids 3
ANIM6805
Motion Tracking3
ANIM7650

Thesis I......3

Animation Career Preparation......3

Major Electives

ANIM7750

ANIM7850

ANIM7900

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

B.A. in History/M.P.A. B.A. in Political Science/M.A. in Criminal Justice

B.A. in History/M.P.A. **Five-year Program**

The B.A. in history/M.P.A. combined degree is offered on the Metropolitan Campus. A total of 150 credits is normally required to complete the B.A./M.P.A. combined degree program. Thirty-nine of these credits must be earned on the graduate level.

Requirements for the B.A. in History/M.P.A.

Undergraduate Courses (A minimum of 120 credits is required for the B.A. degree.)

General Education Requirements (47 credits)

College Competencies (21 credits)

Written Communication Six credits in ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument and six credits of writing-intensive courses within

Oral Communication

the major.

A three-credit course related to public speaking and oral presentations, typically a course in speech.

Quantitative Analysis

A three-credit course related to mathematics and statistics, with applications to everyday problems.

Ethical and Moral Analysis

A three-credit course that is substantially concerned with ethical theories and questions. For history majors, this course should be HIST2106 Ethical Issues in History.

Scientific Analysis

A minimum of six credits of laboratory science.

Language and Culture

This requirement can be satisfied by one of four options: traditional language courses with significant cultural elements, language (LANG) courses listed under Language and Culture Studies, language-based study abroad or the six highest ESL/EPS credits for nonnative English speakers.

Social and Behavioral Sciences

Six credits of course work in communication, criminal justice, economics, political science, psychology or sociology.

Art and Humanities

Six credits of course work in art (visual or performing arts), English literature, history, humanities, philosophy or religion.

Liberal Arts Distribution (18 credits)

University Requirements (8 credits)

Credits Transitioning to University Life......1 **UNIV1002** Preparing for Professional Life.....1 **UNIV2001** Cross-cultural Perspectives......3 **UNIV2002**

Major Requirements (36 credits)

At least two 1000-level HIST courses: at least three 3000-level HIST courses: either HIST4400 Senior Research Seminar or HIST4401 Honors History; and as many 2000-level courses as required.

Minor Elective Courses (15 credits) Free Elective Courses (13 credits)

Additional Graduate Courses Required for the M.P.A. Degree (39 credits)

PADM6600
Public and Nonprofit Management3
PADM6601
Organization Theory3
PADM6602
Budgeting and Finance3
PADM6603
Public Policy Administration 3
PADM6604
Human Resources Management 3
PADM6610
Quantitative Methods for
Administrators3
PADM6680
Information Technology Management3
PADM6821
M.P.A. Project Report3
Public Administration Electives15

B.A. in Political Science/ **M.A.** in Criminal Justice **Five-year Program**

The accelerated Bachelor of Arts in political science/Master of Arts in criminal justice offered by the School of Criminal Justice, Political Science and International Studies allows students to complete and combine their studies in earning both bachelor's and master's degrees. The student is able to take 9 graduate credits during their senior year toward their free electives.

Students opting for the combined degree program must meet the minimum admissions requirements for students applying for the graduate program as set forth in the Graduate Studies Bulletin, the only exception is with those who have obtained their baccaulaureate degrees.

It is highly recommended that students expressing interest in the program speak with an adviser in order to maintain proper availability on their check sheets. Students may declare their candidacy toward this program after successfully completing 64 credits but no later than 90 undergraduate credits.

It is imperative for students who plan to declare for this program that they maintain a minimum 3.00 overall cumulative grade point ratio (CGPR) and a 3.25 GPR within the political science major. Students must maintain a 3.00 GPR in the approved graduate courses.

B.A. in Political Science/M.A. in Political Science

B.A. in Political Science/	Credits	Credits
M.A. in Political Science	UNIV1002	POLS6682
Five-year Program	Preparing for Professional Life1	Diplomatic History of the U.S
A new program, as of the spring 2018	UNIV2001	POLS6711
semester, this accelerated combined degree	Cross-cultural Perspectives3	Genocide: From an American
program offers those majoring in political	UNIV2002	Perspective3
science with the opportunity to also earn	Global Issues3	POLS6753 American Culture in a Global
their graduate degree in political science.	Major Requirements (39 credits)	Perspective3
Students may apply for this program	Required Major Courses (18 credits)	POLS6871
after the successful completion of 64 cred-	POLS2232	U.SLatin American Relations3
its during their junior year. They may begin	Political Thought and Theory 3	POLS7810
to take 9 graduate credits during their se-	POLS2251	Constitution Issues/U.S. Foreign
nior year toward their 120-credit requirement for graduation. An additional 24	Foreign Policy of the United States3	Policy3
graduate credits must be taken to complete	POLS2253	POLS7815
the program.	American Government3	Nationalism and Its Discontents3
Students who plan to declare for this	CRIM6015	POLS7820
program are required to maintain a mini-	Research Methods in Criminal	Models of Political Systems
mum 3.00 overall cumulative grade point	Justice and Criminology 3	POLS7821
ratio (CGPR) and a 3.25 GPR within the	POLS7820	Modern Political Theory
political science major. Students must	Models of Political Systems	The Character of Revolutionary
maintain a 3.00 GPR in their approved	Politics of Public Safety3	Movements
graduate courses.		POLS7825
Compared Education Beautifum and	Major Electives (21 credits)	Foreign Policy and Diplomacy3
General Education Requirements	Minor (15 credits)	POLS7830
(53 credits)	Willion (10 orcans)	International Organizations3
College Competencies (24 credits) Credits	Free Electives (13 credits)	POLS7831
ENWR1001	Total120	International Law3
Composition I: Rhetoric and Inquiry3		POLS7832
ENWR1002	Master's Curriculum (24 credits)	International Problems/Conflict Resolution
Composition II: Research and	POLS6800	POLS7833
Argument3	Master's Research or	Modern Warfare/Global Stability3
Speech and Professional Communication	Comprehensive Exam3	POLS7834
(3 credits)	Political Science Graduate Electives	Politics of the Global Economy 3
Quantitative Analysis (3 credits)	(21 credits)	POLS7835
Math or Technology Statistics (3 credits)	CRIM6010 U.S. Constitution, Public Policy	Geography and World Politics3
Ethical and Moral Analysis	and Criminal Justice	POLS7851
POLS2606	CRIM6020	Forces and Issues: Middle East3
Ethics and Politics3	Statistics and Data Analysis 3	POLS7853
Scientific Analysis (6 credits)	CRIM7020	The New Europe
	Ethics, Politics and Justice3	POLS7854 Changing Fastern Furone
Liberal Arts Distribution (21 credits)	CRIM7025	Changing Eastern Europe3 POLS7863
Language (3 credits)	Comparative Criminal Justice	Comparative Government:
Social and Behavioral Sciences (6 credits)	Systems	Middle East
POLS1101	CRIM7030	POLS7867
Introduction to Political Science3	Principles of Leadership	Political and Economic
POLS2231	CRIM7080 Politics and Policies of Criminal	Challenges: Africa
Comparative Government and	Justice	POLS7868
Politics3	CRIM7085	Terrorism and Insurgency
Art and Culture (6 credits)	Advanced Internship in	POLS7871
Humanities (6 credits)	Criminal Jutice	The Modern Asian State
	,	PULS /8 /4
	HIST6714	
University Requirements (8 credits)	HIST6714 U.S. and the Developing World3	Latin America: New Challenges 3

Total....144

Perspectives......3

B.A. in Political Science/M.P.A.

B.A. in Political Science/M.P.A. Five-year Program

This is a five-year B.A./master's curriculum combining undergraduate studies in political science with graduate studies in public administration. It is offered at the Metropolitan Campus, Teaneck, New Jersey. Students will obtain the B.A. at the end of four years of course work and 120 credits. Students can apply to a five-year program (B.A./M.P.A.) as early as their junior year.

A total of 150 credits is normally required to complete the B.A./M.P.A. combined degree program. Thirty-nine of these credits must be earned on the graduate level.

Undergraduate Courses (A minimum of 120 credits is required for the B.A. degree.)

Requirements for the B.A. in Political Science/M.P.A.

Undergraduate Courses (A minimum of 120 credits is required for the B.A. degree.)

General Education Requirements (47 credits)

College Competencies (21 credits)

Written Communication

Six credits in ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument and six credits of writing-intensive courses within the major.

Oral Communication

A three-credit course related to public speaking and oral presentations, typically a course in speech.

Quantitative Analysis

A three-credit course related to mathematics and statistics, with applications to everyday problems.

Ethical and Moral Analysis

A three-credit course that is substantially concerned with ethical theories and questions. For political science majors, this course should be POLS2606 Ethics and Politics.

Scientific Analysis

A minimum of six credits of laboratory science.

Language and Culture

This requirement can be satisfied by one of four options: traditional language courses with significant cultural elements, language (LANG) courses listed under Language and Culture Studies, language-based study abroad or the six highest ESL/EPS credits for nonnative English speakers.

Social and Behavioral Sciences

This requirement consists of three credits in political science (POLS1101 Introduction to Political Science) and three credits of course work in communication, criminal justice, economics, political science, psychology or sociology.

Art and Humanities

Six credits of course work in art (visual or performing arts), English literature, humanities, philosophy or religion.

Liberal Arts Distribution (18 credits)

University Requirements (8 credits) Credits

Major Requirements (36 credits) Required Major Courses (15 credits)

POLS2231 Comparative Government

POLS4600 Political Science Seminar

or

POLS4875

Honors in Political Science......3

Major Elective Courses (21 credits)

A minimum of 21 credits (seven POLS courses).

Minor Elective Courses (15 credits) Free Elective Courses (13 credits)

Additional Graduate Courses Required for the M.P.A. Degree (39 credits)

Credits

PADM6600 Public and Nonprofit Management......3 PADM6601 Organization Theory......3 PADM6602 Budgeting and Finance......3 PADM6603 Public Policy Administration......3 PADM6604 Human Resources Management......3 PADM6610 Quantitative Methods for PADM6680 Information Technology Management...3 PADM6821

M.P.A. Requirements

For information contact Dr. Paulette Laubsch, academic coordinator for the M.P.A. program, at plaubsch@fdu.edu or 201-692-6523.

M.P.A. Project Report......3

B.A. in Psychology/M.A. in Forensic Psychology

Accelerated Programs in Psychology

The University offers separate and distinct accelerated programs for undergraduate psychology majors at its campuses.

At the Metropolitan Campus, Teaneck, New Jersey, the student may earn a master's degree in forensic psychology (see this page), general/theoretical psychology (see page 222) or a master's degree in social work (see page 224). At the Florham Campus, Madison, New Jersey, there is a program leading to a master's degree in industrial/organizational psychology (see page 223).

B.A. in Psychology/M.A. in Forensic Psychology Five-year Program

The School of Psychology at the Metropolitan Campus, Teaneck, New Jersey, offers three programs that provide an opportunity for students to accelerate their training in psychology. These programs, leading to a master's degree in forensic psychology, general/theoretical psychology or in social work, allow students to complete the typical B.A./M.A. or B.A./M.S.W. course sequence in just five years, rather than the usual six years of full-time study.

Entrance and Curriculum Requirements for the B.A./M.A. in Forensic Psychology Program

Students can enter the program as incoming freshmen or as students already enrolled in an undergraduate program at Fairleigh Dickinson University (or as incoming transfer students). Current undergraduate students must first complete a minimum of 12 credits in psychology (including statistics). Students' academic and work experiences must reflect a strong potential for successfully completing the academic requirements of the accelerated B.A./M.A. program. Academic potential for either incoming freshmen or current undergraduate students will be determined by the School of Psychology on the basis of the following: 1) SAT scores (for high school students); 2) academic transcripts; 3) a minimum of two letters of recommendation (at least one from a professor/teacher); 4) a personal statement regarding academic and career goals; and 5) for current undergraduate students, a cumulative grade point ratio (GPR) of 3.50. The decision to accept applicants will be made on the basis of the foregoing data and a personal interview.

Students begin taking graduate classes in their junior year and remain on "probationary" status until their senior year, when they are officially accepted into the program. This evaluation will be performed by a committee of psychology faculty at the end of each student's fourth year. With regard to credits earned in graduate courses, students are required to maintain a minimum overall grade point ratio of 3.00 and must not earn more than one C-level grade throughout their graduate course work. Students receiving two or more grades below a B- in graduate courses will not be permitted to continue in the

program. Students in this circumstance who are not permitted to continue in the graduate program will receive the B.A. in psychology upon successful completion of their undergraduate curriculum (a total of 120 credits).

A written comprehensive examination of the candidate's knowledge of general psychology or a master's thesis is required at the end of the graduate component of the program. The comprehensive examination may be taken only twice. Failure to pass the comprehensive examination may result in dismissal from the program.

Outline of the Psychology Components of the B.A./M.A. Accelerated Program in Forensic Psychology

Psychology (graduate) 36 credits PSYC6109

Introduction to Forensic Psychology.....3

^{*}Psychology/criminal justice elective is satisfied by completion of an approved forensic course. If course was taken at the undergraduate level, the graduatelevel course must be substituted by an approved graduate course.

B.A. in Psychology/M.A. in General/Theoretical Psychology

Credits
PSYC6231
Psychological Bases of Criminal
Behavior3
PSYC7230
Forensic Assessment and Prediction3
PSYC7234
Ethical Issues in Forensic Practice3
PSYC7235
Evaluating Criminal Responsibility
and Competency3
PSYC7240
Externship in Forensic Psychology 3

B.A. in Psychology/M.A. in General/Theoretical Psychology Five-year Program

The School of Psychology at the Metropolitan Campus, Teaneck, New Jersey, offers three programs that provide an opportunity for students to accelerate their training in psychology. These programs, leading to a master's degree in forensic psychology, general/theoretical psychology or in social work, may allow students to complete the typical B.A./M.A. or B.A./M.S.W. course sequence in just five years, rather than the usual six years of full-time study.

Entrance and Curriculum Requirements for the B.A./M.A. in General/ Theoretical Psychology Program

Students can enter the program as incoming freshmen or as students already enrolled in an undergraduate program at Fairleigh Dickinson University (or as incoming transfer students). Current undergraduate students must first complete a minimum of 12 credits in psychology. Students' academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the accelerated B.A./M.A. program. Academic potential for either incoming freshmen or current undergraduate students will be determined by the School of Psychology on the basis of the following: 1) SAT scores; 2) academic transcripts; 3) a minimum of two letters of recommendation; and 4) a personal statement regarding academic and career goals. The decision to accept applicants will be made on the basis of the foregoing data and a personal interview.

Students will be allowed to continue in the graduate component of the five-year degree program upon evaluation of their performance in the undergraduate component of the program; this evaluation will be performed by a committee of psychology faculty at the end of each student's fourth year. With regard to credits earned in graduate courses, students are required to maintain a minimum overall grade point ratio of 2.75 and must not earn more than two C-level grades throughout their graduate course work. Students receiving two or more grades below a B- in core courses will not be permitted to continue in the program. Students in this circumstance who are not permitted to continue in the graduate program will receive the B.A. in psychology upon successful completion of their undergraduate curriculum (a total of 120 credits).

A written comprehensive examination of the candidate's knowledge of general psychology or a master's thesis is required at the end of the graduate component of the program. The comprehensive examination may be taken only twice. Failure to pass the comprehensive examination will result in dismissal from the program.

Outline of the Psychology Components of the B.A./M.A. Program in General/Theoretical Psychology

Psychology (undergraduate)	30 credits
	Credits
PSYC1103	
General Psychology	3
PSYC2201	
Statistics	3
PSYC2204	_
Child Development	3
PSYC2234 Social Psychology	7
PSYC3202	3
Experimental Psychology	3
PSYC3315	
Abnormal Psychology	3
PSYC4500	
Senior Seminar in Psychology	<i>y</i> 3
Psychology Electives	
Psychology (graduate)	36 credits
Core Courses (6 credits)	
PSYC6121	
Statistics and Research Method	ods 3
PSYC6129	00
Research Methods and	
Psychometrics	3
1 sychometries	
Choose Five Courses From Bel	low
(15 credits)	
PSYC6109	
Social Psychological Applicat	ions3
PSYC6111	
Theories of Personality	3
PSYC6114	7
PsychopathologyPSYC6128	3
Computer Applications and	
Scientific Report Writing.	7
PSYC7122	
Developmental Psychology	3
PSYC7133	
Learning, Cognition and Emo	otion3
PSYC7130	
Biological Bases of Behavior.	3
Five Psychology Elective Cours	ses
(15 credits)	
PSYC	1.7
Graduate Psychology Elective	25

B.A. in Psychology/M.A. in Industrial/Organizational Psychology

B.A. in Psychology/M.A. in Industrial/Organizational Psychology

Five-year Program

The University offers separate and distinct accelerated programs for undergraduate psychology majors at its campuses.

At the Florham Campus, Madison, New Jersey, there is a program leading to a master's degree in industrial/organizational psychology (see this page).

The department of psychology and counseling at the Florham Campus, Madison, New Jersey, has a program designed to provide an opportunity for students to accelerate their training in psychology. This program, leading to a master's degree in industrial/organizational psychology, allows students to complete the typical B.A./M.A. course sequence in five years, rather than the usual six years, of full-time study.

Entrance and Curriculum Requirements

To apply, students must have completed a minimum of 60 undergraduate credits in an accredited two-year or four-year college or university, with a minimum of 9 credits in psychology. Courses in statistics and industrial psychology must be completed before applying. If students are transferring to the University, they must complete at least 12 credits at Fairleigh Dickinson University before they can apply to the accelerated program. Students' academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the accelerated B.A./M.A. program. Academic potential will be determined by the graduate Admissions Committee of the department of psychology and counseling on the basis of the following: 1) completed application (available in the department), 2) academic transcripts, 3) a minimum of three letters of recommendation, 4) a résumé indicating prior work and life experience, 5) a personal statement regarding academic and career goals and 6) a personal interview. The decision to accept applicants will be made on the basis of the foregoing data.

Requirements for Successful Completion of Graduate Component of Accelerated Degree Programs

Students will be allowed to continue in the graduate component of the accelerated degree programs upon evaluation of performance in the undergraduate and graduate components of their particular programs. This evaluation will be performed by a committee of psychology faculty at the end of the students' fourth year. With regard to credits earned in graduate courses, students are required to maintain an overall grade point ratio of 3.00 and must not earn more than one C-level grade throughout graduate course work. Students in this circumstance who are not permitted to continue in the graduate program will receive the B.A. in psychology upon successful completion of their undergraduate curriculum (a total of 120 credits).

A written comprehensive examination of the candidate's knowledge of general psychology as well as his or her field of specialization is required at the end of these graduate psychology programs. Students are eligible to take this exam during the final semester in which they are enrolled in their graduate courses. The comprehensive examination may be taken only twice. Failure to pass the comprehensive examination will result in dismissal from the graduate program.

Industrial/Organizational Psychology

The specialization in industrial/organizational psychology is designed to equip the graduate with a working knowledge of practices and procedures in applying psychology in a variety of organizational settings. Accordingly, the emphasis is on those aspects of industrial/organizational psychology that are most immediately useful to the student in a working environment.

Specific Course Requirements for Industrial/Organizational Psychology

Students who complete the combined B.A. and M.A. program must meet all requirements in the following areas: 1) arts and sciences core (48-50 credits); 2) free electives (28–31 credits); 3) psychology, undergraduate, core and electives (26–27 credits); and 4) psychology, graduate, core and electives (36 credits). It is expected that many of the courses in the arts and sciences core and free electives will have been completed by the time students have accumulated the minimum of 60 undergraduate credits needed for admission to the program. Most of the psychology courses, undergraduate and graduate, would be taken in the last three years of the program, with the final year devoted exclusively to graduate courses.

Outline of the Psychology Components of the B.A./M.A. Program in Industrial/ Organizational Psychology

Psychology (undergraduate) 26 credits

Credits
PSYC1201
General Psychology3
PSYC2210
Psychological Statistics4
PSYC2211
Research Methods4
PSYC3005
Abnormal Psychology3
PSYC3310
Social Psychology3
PSYC3322
Industrial Psychology3
PSYC4291
History and Systems of Psychology3
Experimental Elective (to be selected from
PSYC3032 Physiological Psychology,
PSYC3331 Theories of Learning,
PSYC3333 Sensation and Perception,
PSYC4130 Behavioral Neuroscience
Methods)
The next group of courses are graduate

The next group of courses are graduate courses for which students would be given dual credit toward their B.A. and M.A. requirements. These courses would be taken during the third, fourth and fifth years. COUN7706

Lifestyle and Career Counseling......3

PSYC6300

Graduate Thesis or Electives 6 credits PSYC7803, PSYC7804

Research and Thesis6
or
PSYC6307
Techniques of Interviewing 3
PSYC7745

Leadership Studies.....3

B.A. in Psychology/M.S.W.

B.A. in Psychology/M.S.W. Five-year Program

The School of Psychology at the Metropolitan Campus, Teaneck, New Jersey, offers three programs that provide an opportunity for students to accelerate their training in psychology. These programs, leading to a master's degree in forensic psychology, general/theoretical psychology or in social work, allow students to complete the typical B.A./M.A. or B.A./M.S.W. course sequence in just five years, rather than the usual six years of full-time study.

Entrance and Curriculum Requirements for the B.A./M.S.W. Program

This program is offered in cooperation with the Rockland Branch Campus of the New York University (NYU) Silver School of Social Work, located in Sparkill, N.Y. Students earn their B.A. in psychology from Fairleigh Dickinson University and their Master of Social Work (M.S.W.) from NYU. Students can enter this program as incoming freshmen or as students already enrolled in an undergraduate program at Fairleigh Dickinson University (or as incoming transfer students). Students' academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the B.A./M.S.W. program. Academic potential for either incoming freshmen or current undergraduate students will be determined by the School of Psychology on the basis of the following: 1) SAT scores; 2) academic transcripts; 3) a minimum of two letters of recommendation; and 4) a personal statement regarding academic and career goals. Admission to this program is on the basis of the foregoing data and a personal interview. Current undergraduate students can apply for admission to this program only after completing 64 credits of undergraduate course work, including no less than 18 credits in psychology. In addition, current undergraduate students must have a cumulative grade point ratio (CGPR) of at least 3.00 and a psychology grade point ratio of at least 3.25 in order to be considered for admission to this program (and to maintain matriculation in this program).

Students will be allowed to continue in the graduate portion of this five-year degree program at the Rockland Branch Campus of the NYU Silver School of Social Work upon evaluation of their performance in the undergraduate portion of the program at FDU; this evaluation will be performed by a committee of psychology faculty from FDU and NYU in the middle of each student's fourth year.

Concerning graduate course work, students will be required to maintain at least a B average with a grade of B or better in each course. Students who fail to maintain at least a B average or better in their graduate course work or who receive a grade below a B in any graduate course may be terminated from the graduate portion of the program. In such cases, students will receive the B.A. in psychology from FDU upon successful completion of their undergraduate curriculum (a total of 120 credits), including up to 13 credits taken at NYU.

Outline of the Psychology/Social Work Components of the B.A./M.S.W. Program

Psychology and Sociology	
(undergraduate)	39 credits
	Credits
PSYC1103	
General Psychology	3
PSYC2201	
Statistics	3
PSYC2204	
Child Development	3
PSYC2234	
Social Psychology	3
PSYC3202	
Experimental Psychology	3
PSYC3315	
Abnormal Psychology	3
PSYC3384	
Theories of Personality	3
PSYC4500	
Senior Seminar in Psychology.	3
New York University Graduate	Courses
(65 credits)	
Social Welfare Programs and Poli	icies I3
Human Behavior in the Social	
Environment I	3
Human Behavior in the Social	
Environment II	3
Human Behavior in the Social	
Environment III	
Social Work Research I	
Social Work Research II	
Social Work Practice I	
Social Work Practice II	
Social Work Practice III	
Social Work Practice IV	
Clinical Practice with Groups	3

	Credits
Advanced Social Policy	3
Diversity, Racism, Oppression and	
Privilege	3
Field Instruction II	4
Field Instruction III	4
Field Instruction IV	4
Electives	13

B.A. in Sports Administration/Master of Sports Administration

B.A. in Sports Administration/	Second Year	Fourth Year
Master of Sports Administration	3rd Semester Credits	7th Semester Credits BUSI3620
Five-year Program	Communication Course 2000	Human Resource Systems
The five-year program allows qualified stu-	or above3	MSA6701
dents to attain a Bachelor of Arts degree in	ECON1122	Legal Issues in the Domestic
sports administration and a Master of	Microeconomics	and International Sports Industry 3
Sports Administration.	INTER2013	MSA6702
Students in the combined B.A. in sports	The American Experience 3 SPAD	Sports Administration Research and Policy Analysis
administration/M.S.A. program must have	Section B* Course	MSA Elective
achieved at least a 3.00 cumulative grade	UNIV2001	Free Elective.
point ratio by the conclusion of their junior	Cross-cultural Perspectives3	Total1
year.	Total15	8th Semester
Requirements	4th Semester	MSA6602
•	ECON1121	Facility Development,
Metropolitan Campus	Macroeconomics3	Administration and Programming
First Year	INTER2008	MSA6603
1st Semester Credits	Literature and Culture Seminar3	Sports Marketing and Promotion
ENWR1001	SPAD4000	MSA6703
Composition I: Rhetoric and	International Sports Administration	Financial Administration in Sports
Inquiry	(every two years)	SPAD4000
Perspectives on the Individual	or SPAD	International Sports Administration (every two years)
SOCI1101	Section B* Course	or
Introductory Sustainability3	SPAD	SPAD
SPAD2004	Section C** Course3	Section B* Course
Introduction to Sports	UNIV2002	Free Elective2
Administration3	Global Issues3	Total14
SUST1000	Total15	
Introduction to Sustainability3	Third Year	Fifth Year
UNIV1001	5th Semester	9th Semester
Transitioning to University Life1 Total16	PHYS1026, PHYS1126	MSA6601
	Earth Physics (Lecture and	Organizational Leadership
2nd Semester	Laboratory)4	and Team Development
ENWR1002	SPAD2022	MSA6607
Composition II: Research and Argument	Facility Management	Human Resource Administration in Sports Organizations
MATH1101	SPAD2025	MSA Elective
Comprehensive Mathematics	Global Perspectives in Sports3 SPAD	Total
or	Section B* Course	10th Semester
MATH1131	SPAD	MSA6704
College Mathematics I	Section C** Course3	Internship I or Individual
or	Total16	Job-related Project
MATH1141	6th Semester	MSA6705
Introduction to Mathematical	SPAD2018	Strategic Planning, Implementation
Methods3	Sports Internship3	and Evaluation
MIS1135 Introduction to Computers	SPAD3010	MSA Elective
or	Job-search Strategies	Total Students will be required to complete the
MIS1045	SPAD	following:
Information Technology for Business 3	Section C** Course3	ionowing.
PSYC1103	Free Electives	
General Psychology3	10ta113	
SPAD		
Section B* Course		
Preparing for Professional Life1	*See Section B page 226 .	
Total16	**See Section C page 226.	*See Section B page 226.

B.A. in Sports Administration/Master of Sports Administration

Section B (12 credits)	2nd Semester Credits	Third Year
SPAD2010	Legal Aspects in Sports	ENGL1102	5th Semester Credits
	Administration	English Composition II3	BIOL1070, BIOL1071
SPAD2014	Ethical Issues in Sports	MATH1126	Ecosystem and Environmental
SPAD2015	Team Development	Contemporary Mathematics	Science (Lecture and Laboratory)4
SPAD2017	Safety, First Aid and	or	BUSI3620
	Prevention of Injury	MATH1128	
SPAD2019	Sports, Marketing, Public	Mathematical Methods3	Human Resource Systems
21112 2013	Relations	MIS1045	SPAD2025
SPAD2020	Fundraising in Sports	Information Technology for Business 3	Global Perspectives in Sports3
SPAD3000	Fiscal Concept in Sports	SOCI1201	SPAD
SPAD4001	Sports Internship II		Section B* Courses
SPAD4500	Coaching Certification	Introduction to Sociology3 SPAD2022	SPAD
51712 1500	code in ing continuation		Section C** Course3
Section C (9 credits)	Facility Management	Total16
ACCT1131	Accounting I	UNIV1002	
ACCT1132	Accounting II	Preparing for Professional Life1	6th Semester
LAW2276	Business and the Law	Total16	SPAD2018
SPAD2012	Nutrition and Wellness	Second Year	Sports Internship3
SPAD2013	Exercise Science for the	3rd Semester	SPAD3010
5171152015	Sports Administration	COMM	Job-search Strategies
	Professional	Communication Course 2000	SPAD
SPAD2016	Stress Management	or above3	Section C** Course3
SPAD2010	Strength and Conditioning	ECON2001	Free Electives
SPAD2030	Ultimate Sports Marketing	Introduction to Microeconomics 3	Total13
SPAD3001	Theory, Philosophy and	INTER2013	Fourth Year
517105001	Principles of Coaching	The American Experience 3	
SPAD3002	Human Kinesiology	SPAD	7th Semester
SPAD3003	Sports and Society	Section B* Course	MSA6608
SPAD3004	Youth Program	UNIV2001	Sports Risk Assessment3
SIADSOUT	Administration	Cross-cultural Perspectives3	MSA6701
SPAD3005	Management in Athletic	Total15	Legal Issues in the Domestic
51 AD 3003	Training, Athletics and		and International Sports Industry 3
	Health	4th Semester	MSA6702
	Ticattii	ECON2102	Sports Administration Research
Free Flectiv	ves (11 credits)	Introduction to Macroeconomics3	and Policy Analysis3
TICC LICCIN	res (11 creatis)	SPAD4000	SPAD
		International Sports Administration	Section C** Course3
Florham Ca	ampus	(every two years)	Free Elective3
First Year		or	Total15
1st Semester	Credits	SPAD	
ENGL1101		Section B* Course 3	8th Semester
	omposition I3	UNIV2002	MSA6602
INTER1009	Г	Global Issues3	Facility Development,
	es on the Individual3	Foreign Language with Lab**4	Administration and Programming3
PSYC1201	or the marriadamining	Free Elective	MSA6603
	sychology3	Total16	Sports Marketing and Promotions3
SPAD2004	<i>y</i> • 11010 <i>g y</i> •		MSA6703
	on to Sports		Financial Administration in Sports3
	stration3		SPAD4000
SUST1000	Stration		International Sports Administration
	on to Sustainability3		(every two years)
UNIV1001	on to Sustamability		or
	ng to University Life1		SPAD
1141151110111	Total16		Section B* Course
	1018110		Free Elective 1
			Total13
		*Con Continu P. nago 227	10ta113
		*See Section B page 227. **Only Florham Campus students must complete a for-	
		eign language requirement (i.e., Spanish, French,	*See Section B page 227.
		German, Italian, Japanese, sign language, etc.).	**See Section C page 227.

B.S. in Accounting/M.S. in Accounting

Fifth Year
9th Semester Credits
MSA6601
Organizational Leadership
and Team Development 3
MSA6607
Human Resource Administration
in Sports Organizations3
MSA Elective3
Total9
10th Semester
MSA6704
Internship I or Individual
Job-related Project3
MSA6705
Strategic Planning, Implementation
and Evaluation3
MSA Elective3
Total9
Students will be required to complete the

Section B (9 credits)

following:

SPAD2010	Legal Aspects in Sports
	Administration
SPAD2014	Ethical Issues in Sports
SPAD2015	Team Development
SPAD2017	Safety, First Aid and
	Prevention of Injury
SPAD2019	Sports, Marketing, Public
	Relations
SPAD2020	Fundraising in Sports
SPAD3000	Fiscal Concept in Sports
SPAD4001	Sports Internship II
SPAD4500	Coaching Certification
	-

Section C (9 credits)

ACCT1131	Accounting I
ACCT1132	Accounting II
LAW2276	Business and the Law
SPAD2012	Nutrition and Wellness
SPAD2013	Exercise Science for the
	Sports Administration
	Professional
SPAD2016	Stress Management
SPAD2021	Strength and Conditioning
SPAD2030	Ultimate Sports Marketing
SPAD3001	Theory, Philosophy and
	Principles of Coaching
SPAD3002	Human Kinesiology
SPAD3003	Sports and Society
SPAD3004	Youth Program
	Administration
SPAD3005	Management in Athletic
	Training, Athletics and

Health

B.S. in Accounting/ M.S. in Accounting

Five-year Program (4+1)

Fairleigh Dickinson University now offers a comprehensive 150-hour program (4+1) leading to the combined Bachelor of Science/Master of Science in accounting degree. This cutting-edge program features state-of-the-art studies in accounting, taxation and law designed to prepare the student for employment in either the public or private accounting sector.

Entrance and Curriculum Requirements for the B.S./M.S. Program

The B.S./M.S. in accounting program is open to any accounting major admitted to the University. After completing the first 75 credits at the undergraduate level, first semester junior year students are eligible to join the 4+1 in the upper level of the 150-hour B.S./M.S. program if they comply with the requirements for the M.B.A. program.

A personal interview with the director of the program also may be required.

Acceptance into the program takes place in the fifth semester of the undergraduate program. Students will complete the following curriculum requirements, beginning with the sixth semester. During the spring semester following the completion of the undergraduate portion of the program, students commence the graduate portion of the program, which will be completed during the following fall semester.

Admission requirements for the graduate portion of this program apply.

Components of the B.S./M.S. Program in Accounting

iii Addodaiitiiig	
9th Semester	Credits
ACCT6606	
Federal Tax II: Business Entities*	3
ACCT6680	
Selected Accounting Topics*	3
LAW6657	
Applied Business Law*	3
Graduate Accounting Elective*	3
Graduate Business Elective*	3
Tot	al 15

Free Electives (13 credits)

^{*}Designates graduate-level course.

B.S. in Accounting/M.B.A.
B.S. in Biochemistry/M.S. in Applied Clinical Nutrition

B.S. in Accounting/M.B.A.

Fairleigh Dickinson University also offers a combined degree program: B.S. in accounting/M.B.A. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-7206.

Admission requirements for the graduate portion of this program apply.

B.S. in Biochemistry/M.S. in Applied Clinical Nutrition

Five-year Program

(with School of Health Sciences and Education, New York Chiropractic College) This accelerated, combined degree program provides qualified students the opportunity to complete the bachelor's degree and a master's degree in five years, one year less than the normal span of six years. The bachelor's degree (B.S. in biochemistry) is awarded by Fairleigh Dickinson University and the master's degree (M.S.) is offered online by the School of Health Sciences and Education of the New York Chiropractic College (NYCC) in Seneca Falls, N.Y.

The NYCC comprehensive professional education focuses on nutrition and its application in prevention and disease management, preparing graduates to practice in a wide range of clinical, consulting and industry settings. The program emphasizes an integrative approach to health care (www.nycc.edu/AcademicPrograms_MSAC Nprogram.htm).

Students are admitted at FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed on pages 235–236, and the first three trimesters at NYCC. A maximum of 32 credits from NYCC may be transferred toward completion of the B.S. degree at FDU.

Admission to the Combined Degree Program

High school seniors with a combined SAT score of 1150 (at least 600 math and 550 verbal) or 25 on ACT and higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a grade point ratio of 3.00 or higher may apply for admission to the combined degree program.

After a preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited to sit for an interview with the FDU/NYCC Joint Admissions Committee. Recommendation from the preprofessional adviser is required.

Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biochemistry and are expected to maintain a minimum cumulative grade point ratio of 3.00 or higher in all course work and a minimum of C in all science courses.

Qualifying for Enrollment at School of Health Sciences and Education of New York Chiropractic College (NYCC)

Qualified students enrolled in the combined degree program will be guaranteed a seat at NYCC for training in applied clinical nutrition. To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at NYCC. Students need to obtain a grade of C or higher in science and math courses;
 - A grade point ratio of 3.00 or higher;
- Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts Sciences Professional Studies, Metropolitan Campus, Teaneck, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at NYCC; and
- Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering NYCC must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at NYCC.

Prenutrition Curriculum

Under the provisions of the prenutrition program, students matriculate in the School of Natural Sciences of University College: Arts • Sciences • Professional Studies for a minimum of 98 credits of course work leading to the B.S. in biochemistry (preprofessional option). The curriculum is as follows:

B.S. in Biochemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

1st Semester	Credits
BIOL1251, BIOL1253	
General Biology I (Lecture and	
Laboratory)	4
CHEM1201 General Chemistry I	7
CHEM1203	3
General Chemistry Laboratory I.	1
ENWR1001	
Composition I: Rhetoric and Inqui	uiry3
MATH1201	
Calculus I	4
UNIV1001	
Transitioning to University Life Tot	1 tal16
2nd Semester	
BIOL1252, BIOL1254	
General Biology II (Lecture and	
Laboratory)	4
CHEM1202	_
General Chemistry IICHEM1204	3
General Chemistry Laboratory II	1
ENWR1002	1
Composition II: Research and	
Argument	3
MATH2202	
Calculus II	4
UNIV1002	1
Preparing for Professional Life	1 tal16
101	.a110
3rd Semester	
CHEM2261	
Organic Chemistry I	3
CHEM2263	2
Organic Chemistry Laboratory I. PHYS2201	2
Physics Laboratory I	1
PHYS2203	
University Physics I	3
UNIV2001	
Cross-cultural Perspectives	3
Humanities Course*	3 tal15
101	.ai15

4thSemester Credits
CHEM2262
Organic Chemistry II 3
CHEM2264
Organic Chemistry Laboratory II2
PHYS2202
Physics Laboratory II1
PHYS2204
University Physics II3
UNIV2002
Global Issues3
Humanities Course*
Total15
5th Semester
CHEM3241
Physical Chemistry I3
CHEM3243
Physical Chemistry Laboratory I2
CHEM3281
Biochemistry I3
Advanced Mathematics Course** 3
Social and Behavioral Sciences
Elective***
Total14
6th Semester
BIOL6733
Enzymology3
CHEM3242
Physical Chemistry II****
CHEM3244
Physical Chemistry Laboratory II****2
Concentration Electives6

Total.....14

*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1135 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.

*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above. **MATH2203 Calculus III or MATH2337 Applied Statistics I.

***Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

****May be replaced by CHEM3231 Analytical Chemistry.

*****May be replaced by CHEM4234 Instrumental Analysis Laboratory.

B.S. in Biochemistry/ M.S. in Chemistry with Pharmaceutical Chemistry Concentration

Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in chemistry with a pharmaceutical chemistry concentration.

Students applying to this program must have completed 62 credits and achieved a minimum grade point ratio of 3.00. Students must apply by the end of their junior year.

Undergraduate Courses

1st Semester	Credits
BIOL1251, BIOL1253	
General Biology I (Lecture	
and Laboratory)	4
CHEM1201	
General Chemistry I	3
CHEM1203	
General Chemistry Laborato	ory I1
ENWR1001	
Composition I: Rhetoric and	l Inquiry3
MATH1201	
Calculus I	4
UNIV1001	
Transitioning to University L	ife1
	Total16
2nd Semester	
BIOL1252, BIOL1254	
General Biology II (Lecture	
and Laboratory)	4
CHEM1202	
General Chemistry II	3
CHEM1204	
General Chemistry Laborato	ry II1
ENWR1002	·
Composition II: Research an	d
Argument	3
MATH2202	
Calculus II	4
UNIV1002	
Preparing for Professional Li	fe1
	Total16
3rd Semester	
CHEM2261	
Organic Chemistry I	3
CHEM2263	
Organic Chemistry Laborato	ry I2
PHYS2201	-
Physics Laboratory L	1

B.S. in Biochemistry/M.S. in Cosmetic Science

Credits
PHYS2203
University Physics I3
UNIV2001
Cross-cultural Perspectives3
Humanities Course*3
Total15
4th Semester
CHEM2262
Organic Chemistry II3
CHEM2264
Organic Chemistry Laboratory II 2
PHYS2202
Physics Laboratory II 1
PHYS2204
University Physics II3
UNIV2002
Global Issues3
Humanities Course**3
Total15
5th Semester
CHEM3241
Physical Chemistry I
CHEM3243
Physical Chemistry Laboratory I 2
CHEM3281
Biochemistry I
Advanced Mathematics Course***3
Social and Behavioral Sciences
Elective****3
Total14

8th Semester	Credits
CHEM4233	
Instrumental Analysis	3
CHEM4234	2
Instrumental Analysis Laboratory. CHEM4314, CHEM3314	2
Inorganic Chemistry II (Lecture	
and Laboratory)	3
Pharmaceutical Chemistry Requirement	ent3
Graduate Elective	
	al14
9th Semester	omto 0
Pharmaceutical Chemistry Requiremondraduate Elective	
	12
10th Semester	
Pharmaceutical Chemistry Requireme	ent 3
Pharmaceutical Chemistry Electives	
Graduate Elective	3
Tota	al12
Graduate Course Requiremen	nte
Students should consult with their a	
for course selections and new course	
offerings.	
Required Courses (18 credits)	
CHEM6673	
Physical Organic Chemistry CHEM6754	3
Drug-delivery Systems	3
CHEM6755	
Medicinal Chemistry	3
CHEM6781	
Biochemistry	3
CHEM7737	
Chemical Analysis of Pharmaceuti	icals 3
A graduate COMM course (6000 leve	el)3
Ti gradate COMMI Course (Cook Icv.	01)
Pharmaceutical Chemistry Electiv	es
(6 credits)	
MATH6737	_
Applied Statistics I	3
Any 5000- or higher-level BIOL, CHEM, COMM, COSC, MGMT,	
MKTG or PHYS course	3
A minimum of 121 credits is required	
B.S. degree, and a minimum of an add 24 credits for the M.S. degree.	litional
ZT CICUID IOI HIC WI.D. UCGICC.	

*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1108 Development of Art III, ART1108 Development of Art III, ART1108 Development of Art III, ART1108 Design and Illustration, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World. **Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above. ***Selected from MATH2203 Calculus III or MATH2337 Applied Statistics I. ***Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI

B.S. in Biochemistry/M.S. in Cosmetic Science

Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in cosmetic science. This program is designed for students who plan a career in the cosmetic, toiletries or fragrance industries.

Students applying to this program must have completed 62 credits and achieved a minimum grade point ratio of 3.00. Students must apply by the end of their junior year.

Credits

Undergraduate Courses

1st Semester

ist semester Creams
BIOL1251, BIOL1253
General Biology I (Lecture
and Laboratory)4
CHEM1201
General Chemistry I3
CHEM1203
General Chemistry Laboratory I1
ENWR1001
Composition I: Rhetoric and Inquiry 3
MATH1201
Calculus I4
UNIV1001
Transitioning to University Life1
Total16
2nd Semester
BIOL1252, BIOL1254
General Biology II (Lecture
and Laboratory)4
CHEM1202
General Chemistry II3
CHEM1204
General Chemistry Laboratory II1
ENWR1002
Composition II: Research and
Argument3
MATH2202
Calculus II4
UNIV1002
Preparing for Professional Life1
Total16
3rd Semester
CHEM2261
Organic Chemistry I
CHEM2263
Organic Chemistry Laboratory I2
PHYS2201
111102201

Physics Laboratory I.....1

course).

B.S. in Biochemistry/M.S. in Cosmetic Science

Credits	7th S
PHYS2203	BIOL
University Physics I3	Ge
UNIV2001	BIOL
Cross-cultural Perspectives3	Et
Humanities Course*	CHE
Total15	In
4th Semester	CHE
CHEM2262	Ar
Organic Chemistry II3	0
CHEM2264	Cosm
Organic Chemistry Laboratory II2	041.0
PHYS2202	8th S
Physics Laboratory II	CHE
PHYS2204 University Physics II3	In: CHEN
UNIV2002	In
Global Issues	CHE
Humanities Course**	In
Total15	111
5th Semester	Cosm
CHEM3241	Cosm
Physical Chemistry I 3	
CHEM3243	9th S
Physical Chemistry Laboratory I 2	Cosm
CHEM3281	Cosm
Biochemistry I	Gradi
Advanced Mathematics Course***3 Social and Behavioral Sciences	
Elective****	10th
Total14	COSC
	Cosm
6th Semester BIOL6733	Gradi
Enzymology3	Oraa
CHEM3242	Grad
Physical Chemistry II	Stude
CHEM3244	for co
Physical Chemistry Laboratory II2	ings.
Speech Course	
Free Elective	Regu
Total14	BIOL
	De
	CHE
	Pr
*Take 3 credits from ENGL (except developmental	CHE

*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI course Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1108 Modern Art to Midcentury, ART1151 History of Graphic Design and Illustration, ART1133 History of Photography, ART1155 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.
**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.
***MTH2203 Calculus III or MATH2337 Applied Statistics I.

****Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

7th Semester Credits
BIOL2210, BIOL2211
Genetics (Lecture and Laboratory)4
BIOL4405
Ethics in Science
CHEM2211
Inorganic Chemistry I3
CHEM3231, CHEM3232
Analytical Chemistry (Lecture
and Laboratory)4
Cosmetic Science Requirement
Total17
8th Semester
CHEM4233
Instrumental Analysis3
CHEM4234
Instrumental Analysis Laboratory2
CHEM4314, CHEM3314
Inorganic Chemistry II (Lecture
and Laboratory)3
Cosmetic Science Requirement
Cosmetic Science Elective3
Total14
9th Semester
Cosmetic Science Requirements 6
Cosmetic Science Elective
Graduate Requirement
Total12
10th Semester
COSC6548
Cosmetic Science Laboratory
Cosmetic Science Requirements
Graduate Requirement3 Total11
Graduate Course Requirements

Students should consult with their advisers for course selections and new course offerings.

Required Courses (20 credits)

6756 ermal Pharmacology and Immunology...... 3 oduct Development......3 M6529 Microtoxicology and Biochemistry...... 3 COSC6543 Hair-care Raw Materials and Formulations......3 COSC6547 Skin-care Raw Materials and Formulations......3 COSC6548 Cosmetic Science Laboratory...... 2 **PHYS6753** Applied Colloid and Surface Science..... 3

Cosmetic Science Electives (3 credits)

Credits
CHEM6546
Perfumery3
CHEM6773
Polymer Chemistry3
CHEM6781
Biochemistry3
COSC6542
Claims Substantiation3
COSC6549
Color Cosmetics3

A minimum of 120 credits is required for the B.S. degree, and a minimum of an additional 23 credits for the M.A. degree.

B.S. in Biology/M.S. in Acupuncture and Oriental Medicine

B.S. in Biology/M.S. in Acupuncture and Oriental Medicine

Five-year Program

(with Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College)

This accelerated, combined degree program provides qualified students the opportunity to complete the bachelor's degree and a master's degree in five years, one year less than the normal span of six years. The bachelor's degree (B.S. in biology) is awarded by Fairleigh Dickinson University and the master's degree (M.S.) is from the Finger Lakes School of Acupuncture and Oriental Medicine (FLSAOM) of New York Chiropractic College in Seneca Falls, N.Y.

The FLSAOM program provides a comprehensive professional education in acupuncture and oriental medicine that, combined with instruction in biomedicine, prepares graduates to practice in a wide range of clinical settings. The programs emphasize an integrative and holistic approach (http://aom.nycc.edu).

Students are admitted at FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed below, and the first three trimesters at FLSAOM. A maximum of 32 credits from FLSAOM may be transferred toward completion of the B.S. degree at FDU.

Admission to the Combined Degree Program

High school seniors with a combined SAT score of 1150 (at least 600 math and 550 verbal) or 25 on ACT and higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a grade point ratio of 3.10 or higher may apply for admission to the combined degree program.

After a preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited to sit for an interview with the FDU/FLSAOM Joint Admissions Committee. Recommendation from the preprofessional adviser is required.

Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology and are expected to maintain a minimum cumulative grade point ratio of 3.10 or higher in all course work and a minimum of C in all science and math courses.

Qualifying for Enrollment at Finger Lakes School of Acupuncture and Oriental Medicine (FLSAOM)

Qualified students enrolled in the combined degree program will be guaranteed a seat at FLSAOM for training in acupuncture and oriental medicine. To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at FLSAOM. Students need to obtain a grade of C or higher in science and math courses;
 - A grade point ratio of 3.10 or higher;
- Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts Sciences Professional Studies, Metropolitan Campus, Teaneck, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at FLSAOM; and
- Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering FLSAOM must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at FLSAOM.

Pre-acupuncture and Oriental Medicine Curriculum

Under the provisions of the pre-acupuncture and oriental medicine program, students matriculate in the School of Natural Sciences of University College: Arts • Sciences • Professional Studies for a minimum of 98 credits of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

1st Semester Credits
BIOL1251, BIOL1253
General Biology I (Lecture and
Laboratory)4
CHEM1201
General Chemistry I3
CHEM1203
General Chemistry Laboratory I1
ENWR1001
Composition I: Rhetoric and Inquiry3
UNIV1001
Transitioning to University Life1
Total12
2nd Semester
BIOL1252, BIOL1254
General Biology II (Lecture and
Laboratory)4
CHEM1202
General Chemistry II3
CHEM1204
General Chemistry Laboratory II1
ENWR1002
Composition II: Research and
Argument3
UNIV1002
Preparing for Professional Life1
Mathematics Sequence*4
Total16
3rd Semester
BIOL2250, BIOL2150
Ecology and Field Biology
(Lecture and Laboratory)
or
MBIO1209, MBIO1219
Introduction to Marine Biology
(Lecture and Laboratory)4
CHEM2261
Organic Chemistry I3
CHEM2263
Organic Chemistry Laboratory I2
Mathematics Sequence*4

*In the freshman year, students are required to take either precalcululs or calculus. The first-year course must be followed by a second mathematics course in sequence, i.e., Calculus I or Calculus II.

**Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1108 Development of Art III, ART1108 Development of Art IIII History of Graphic Design and Illustration, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema II: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.

Humanities Course**.....3

Total.....16

B.S. in Biology/M.S. in Biology

4th Semester	Credits	B.S. in Biology/M.S. in	Biology	Credits
BIOL2210, BIOL2211		Five-year Program		Mathematics Sequence4
Genetics (Lecture and Labor	ratory)4	The University offers a five-year	nrogram	Humanities Course*
BIOL2300	-	that allows qualified students to		Total16
Experimental Design	3	Bachelor of Science degree in bi		Ath Compater
CHEM2262	_	a Master of Science degree in bio		4th Semester
Organic Chemistry II	3	the Metropolitan Campus.	CV	BIOL2210, BIOL2211
CHEM2264	ow. II 2			Genetics (Lecture and Laboratory)4 BIOL2300
Organic Chemistry Laborato UNIV2002	JI y 112	Metropolitan Campus Seq	wence	Experimental Design3
Global Issues	3	Undergraduate Courses	,401100	CHEM2262
Humanities Course*		1st Semester	Credits	Organic Chemistry II3
		BIOL1251	Credits	CHEM2264
	Total18	General Biology I	3	Organic Chemistry Laboratory II2
5th Semester		BIOL1253		Humanities Course**3
BIOL2237, BIOL2239		Laboratory: General Biology I	1	Total15
Human Structure and Funct	tion I	CHEM1201		
(Lecture and Laboratory	y) 4	General Chemistry I	3	5th Semester
BIOL3225, BIOL3226		CHEM1203		BIOL2237, BIOL2239
General Microbiology		General Chemistry Laborator	y I1	Human Structure and Function I
(Lecture and Laboratory	·)4	ENWR1001		(Lecture and Laboratory) 4
BIOL4900		Composition I: Rhetoric and I	nquiry 3	BIOL3225, BIOL3226 General Microbiology
Biology Seminar I	1	UNIV1001	c .	(Lecture and Laboratory)4
PHYS2201	1	Transitioning to University Life		PHYS2201
Physics Laboratory I PHYS2203	1		Total12	Physics Laboratory I
University Physics L	3	2nd Semester		PHYS2203
UNIV2001		BIOL1252		University Physics I3
Cross-cultural Perspectives	3	General Biology II	3	UNIV2001
1	Total16	BIOL1254		Cross-cultural Perspectives3
6th Semester		Laboratory: General Biology I	I1	Total15
BIOL4240, BIOL4241		CHEM1202		
Molecular Cell Biology		General Chemistry II	3	6th Semester
(Lecture and Laboratory)4	CHEM1204		CHEM3281
BIOL4405		General Chemistry Laboratory	y II1	Biochemistry I
Ethics in Science	3	ENWR1002		Physics Laboratory II
CHEM3281		Composition II: Research and		PHYS2204
Biochemistry I	3	ArgumentUNIV1002	3	University Physics II3
PHYS2202	II 1	Preparing for Professional Life	e 1	Biology Elective
General Physics Laboratory PHYS2204	111	Mathematics Sequence*		Social and Behavioral Sciences
University Physics II	3		Total16	Elective***5
Oral Communication Elective				Free Elective0–1
Oral Communication Elective	Total17	3rd Semester		Total16
		BIOL2250, BIOL2150		
		Ecology and Field Biology		
		(Lecture and Laboratory)		
		or		*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI
		MBIO1209, MBIO1219		courses. Or take ART1103 Principles of Art
		Introduction to Marine Biolog		Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art
		(Lecture and Laboratory)	4	ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design
		CHEM2261		and Illustration, ART1133 History of Photography,
		Organic Chemistry I	3	ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of
		CHEM2263		Fashion Design, ART2137 Global Roots of American
		Organic Chemistry Laborator	y I2	Architecture or ART2238 The Global Art World. **Take 3 credits from ENGL, HIST, HUMN, LANG,

*In the freshman year, students are required to take

either precalculus or calculus. The first-year course

sequence (i.e., Calculus I or Calculus II).

must be followed by a second mathematics course in

*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

PHIL or RELI courses at the 2000-level or above.

***Three credits of a Social and Behavioral Sciences

Elective (any COMM, CRIM, POLS, PSYC or SOCI

B.S. in Business Administration or Entrepreneurship or Finance or Management or Marketing/M.B.A. in Accounting or Business Administration or Entrepreneurship or Finance or Information Systems or International Business or Management or Marketing or Pharmaceutical Management B.S. in Business Admin. or Entrepreneurship or Finance or Mgt. or Marketing/M.S. in Accounting or Supply Chain Mgt. or Taxation

/th Semester Cr	edits
BIOL4855, BIOL4856	
Molecular Biology Techniques	
(Lecture and Laboratory)	3
BIOL4900	
Biology Seminar I	1
UNIV2002	
Global Issues	
Biology Elective	
Graduate Biology Elective	
Free Elective	
Total	16
9th Competer	
8th Semester BIOL4405	
Ethics in Science	7
BIOL4901	•••••
Biology Seminar II	1
BIOL6240, BIOL6241	
Molecular Cell Biology	
(Lecture and Laboratory)	Δ
Oral Communication Elective	7
Graduate Biology Elective	
Total	
9th Semester	
Graduate Biology Electives	12
10th Semester	
Graduate Biology Electives	10

Graduate Course Requirements

Students should consult with their advisers for course selections and new course offerings. Students may take any biology (BIOL) course at or above the 5000 level.

B.S./M.S. Requirements

One hundred forty-two (142) credits are required to earn both the B.S. and M.S. degrees. A minimum of 120 credits is required to earn the B.S. degree and a minimum of 22 additional credits for the M.S. degree.

B.S. in Business Administration or Entrepreneurship or Finance or Management or Marketing/ M.B.A. in Accounting or Business Administration or Entrepreneurship or Finance or Information Systems or International Business or Management or Marketing or Pharmaceutical Management

Fairleigh Dickinson University offers 45 combined degree programs: B.S. in business administration/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; B.S. in entrepreneurship/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; B.S. in finance/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; B.S. in management/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; and B.S. in marketing/ M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-7206.

Admission requirements for the graduate portion of this program apply.

B.S. in Business Administration or Entrepreneurship or Finance or Management or Marketing/ M.S. in Accounting or Supply Chain Management or Taxation

Fairleigh Dickinson University offers 13 combined degree programs: B.S. in business administration/M.S. in accounting; B.S. in entrepreneurship/M.S. in accounting; B.S. in finance/M.S. in accounting or supply chain management or taxation; B.S. in management/M.S. in accounting or supply chain management or taxation; and B.S. in marketing/M.S. in accounting or supply chain management or taxation. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-7206.

Admission requirements for the graduate portion of this program apply.

Silberman College of Business Five-year (4+1) Programs B.S. in Chemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

Silberman College of Business Five-year (4+1) Programs

- B.S. in accounting/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in business administration (with any concentration)/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in finance/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in management (leadership/human resources)/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in marketing /M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing

B.S. in Chemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in chemistry and a Master of Science degree in chemistry with a pharmaceutical chemistry concentration.

Florham Campus

Requirements for the Combined B.S. in Chemistry/M.S. in Chemistry with a Concentration in Pharmaceutical Chemistry

First Year (31 credits)	Credits
BIOL1201, BIOL1203	
Biological Diversity	
(Lecture and Laboratory)	4
BIOL1202, BIOL1204	
Introduction to Molecules, Cells	and
Genes (Lecture and Laborato	ry)4
CHEM1201, CHEM1202	
General Chemistry I, II	6
CHEM1203, CHEM1204	
General Chemistry Laboratory I,	II2
ENGW1001	_
College Writing Workshop	3
ENGW1002	_
Research Writing Workshop	3
MATH1203, MATH2202	0
Calculus I, IIUNIV1001	8
Transitioning to College Life	1
Transitioning to Conege Life	1
Second Year (29 credits)	
CHEM2261, CHEM2262	
Organic Chemistry I, II	6
CHEM2263, CHEM2264	
Organic Chemistry Laboratory I,	II2
PHYS2003, PHYS2013;	
PHYS2004, PHYS2014	
General Physics with Calculus I,	
(Lecture and Laboratory)	8
UNIV1002	
Preparing for Professional Life	1
UNIV2001	_
Cross-cultural Perspectives	
Humanities Elective	
General Education Electives	6

Third Year (37 credits) Credit	s
CHEM2211, CHEM2213	
Inorganic Chemistry	
(Lecture and Laboratory)	4
CHEM2221, CHEM2223	
Analytical Chemistry	
(Lecture and Laboratory)	4
CHEM3241, CHEM3242	
Physical Chemistry I, II	6
CHEM3243, CHEM3244	
Physical Chemistry Laboratory I, II	4
CHEM3281, CHEM3389	
Biochemistry (Lecture and	
Laboratory)	4
MATH1133	_
Applied Statistics	5
UNIV2002	_
Global Issues	
Foreign Language Courses	
General Education Elective)
Fourth Year (31 credits)	
CHEM4215	
Advanced Inorganic Chemistry	3
CHEM4233, CHEM4234	
Instrumental Analysis	
(Lecture and Laboratory)	5
CHEM4401	
Chemistry Seminar	1
CHEM6663	
Introduction to Medicinal Chemistry	3
CHEM6685	
Pharmacology	3
CHEM6781	
Biochemistry	3
CHEM7751	
Chemical Kinetics	3
Senior Research Elective	
Undergraduate Electives	9
Fifth Van (24 and dita)	
Fifth Year (24 credits) CHEM6673	
Physical Organic Chemistry	z
CHEM6830–CHEM6833	J
Special Topics in Chemistry	z
CHEM7735	,
Pharmaceutical Analysis	7
CHEM7747	,
Protein Chemistry*	3
CHEM7751	,
Chemical Kinetics*	3
CHEM7753	_
Pharmacokinetics	3
Undergraduate Electives	

*Graduate electives. May be substituted with graduate courses from other departments (not to exceed 6 credits) relevant to the degree. Permission of the department chair is required.

B.S. in Chemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

Metropolitan Campus	4th Semester Credits	8th Semester Credits
Students applying to this program must have completed 62 credits and achieved a mini-	CHEM2262 Organic Chemistry II3	CHEM4233 Instrumental Analysis3
mum grade point ratio of 3.00. Students must apply by the end of their junior year.	CHEM2264 Organic Chemistry Laboratory II2	CHEM4234 Instrumental Analysis Laboratory2
	PHYS2202	CHEM4314, CHEM3314
Recommended Course Sequence	Physics Laboratory II1	Inorganic Chemistry II
1st Semester Credits	PHYS2204	(Lecture and Laboratory)3
BIOL1251, BIOL1253 General Biology I (Lecture	University Physics II3 UNIV 2002	Pharmaceutical Chemistry Requirement3 Graduate Elective
and Laboratory)4 CHEM1201	Global Issues	Total14
General Chemistry I3 CHEM1203	Total15	9th Semester
General Chemistry Laboratory I1	5th Semester	Pharmaceutical Chemistry Requirements 6 Pharmaceutical Chemistry Elective3
ENWR1001	CHEM3241	
Composition I: Rhetoric and Inquiry3		Graduate Elective3
MATH1201	Physical Chemistry I	Total12
Calculus I4	Physical Chemistry Laboratory I2	10th Semester
UNIV1001	CHEM3281	Pharmaceutical Chemistry Requirement3
Transitioning to University Life1	Biochemistry I3	Pharmaceutical Chemistry Elective3
Total16	Advanced Mathematics Course**	
		Graduate Electives6
2nd Semester	Social and Behavioral Sciences	Total12
BIOL1252, BIOL1254	Elective***3	
General Biology II (Lecture	Total14	Graduate Course Requirements
and Laboratory)4		Students should consult with their advisers
CHEM1202	6th Semester	for course selections and new course
General Chemistry II3	CHEM3242	offerings.
CHEM1204	Physical Chemistry II3	8
General Chemistry Laboratory II1	CHEM3244	Required Courses (18 credits)
ENWR1002	Physical Chemistry Laboratory II2	
Composition II: Research and	Speech Course	CHEM6673
	Science Elective	Physical Organic Chemistry3
Argument		CHEM6754
MATH2202	Free Elective	Drug-delivery Systems3
Calculus II4	Total14	CHEM6755
UNIV1002		Medicinal Chemistry3
Preparing for Professional Life1	7th Semester	CHEM6781
Total16	BIOL4405	Biochemistry
	Ethics in Science3	CHEM7737
3rd Semester	CHEM2211	
CHEM2261	Inorganic Chemistry I3	Chemical Analysis of Pharmaceuticals3
Organic Chemistry I3 CHEM2263	CHEM3231, CHEM3232	Graduate COMM Course (6000 level) 3
	Analytical Chemistry	Pharmaceutical Chemistry Electives
Organic Chemistry Laboratory I2	(Lecture and Laboratory)4	(6 credits)
PHYS2201	Pharmaceutical Chemistry Requirements6	MATH6737
Physics Laboratory I1	Total16	
PHYS2203		Applied Statistics I
University Physics I		Any 5000- or higher-level BIOL, CHEM, COMM, COSC, MGMT,
Cross-cultural Perspectives 3		MKTG or PHYS course3
Humanities Course*		
Total15		
*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art		
Appreciation, ART1107 Development of Art I,	*Take 3 credits from ENGL, HIST, HUMN, LANG,	
ART1108 Development of Art II, ART1120 Modern Art	PHIL or RELI courses at the 2000-level or above.	
to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography,	**Selected from MATH2203 Calculus III or	
ART1135 Cinema I: The Director's Vision, ART1136	MATH2337 Applied Statistics I.	
Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.	***Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).	

B.S. in Chemistry/M.S. in Cosmetic Science

B.S. in Chemistry/M.S. in	3rd Semester Credits	6th Semester Credits
Cosmetic Science	CHEM2261 Organic Chemistry I	CHEM3242 Physical Chemistry II3
Five-year Program	CHEM2263	CHEM3244
The University offers a five-year program	Organic Chemistry Laboratory I2	Physical Chemistry Laboratory II2
that allows qualified students to attain a	PHYS2201	Speech Course3
Bachelor of Science degree in chemistry and a Master of Science in cosmetic science.	Physics Laboratory I1	Cosmetic Science Elective3
Students applying to this program must	PHYS2203	Free Elective
have completed 62 credits and achieved a	University Physics I3	Total14
minimum grade point ratio of 3.00. Students	UNIV2001	
must apply by the end of their junior year.	Cross-cultural Perspectives	7th Semester
Undergraduate students who have suc-	Humanities Course*	BIOL4405
cessfully completed the required two-	Total15	Ethics in Science
semester sequence in organic chemistry	4th Semester	Inorganic Chemistry I3
and who have an overall grade point ratio	CHEM2262	CHEM3231, CHEM3232
of more than 3.00 may apply to one of the	Organic Chemistry II3	Analytical Chemistry
combined B.S./M.S. programs described	CHEM2264	(Lecture and Laboratory)4
below.	Organic Chemistry Laboratory II2	Cosmetic Science Requirement3
	PHYS2202	Free Elective
Undergraduate Courses	Physics Laboratory II 1	Total16
1st Semester Credits	PHYS2204	
BIOL1251, BIOL1253	University Physics II3	8th Semester
General Biology I (Lecture	UNIV2002	CHEM4233
and Laboratory)4	Global Issues3	Instrumental Analysis3
CHEM1201	Humanities Course**3	CHEM4234
General Chemistry I	Total15	Instrumental Analysis Laboratory2
CHEM1203	54.0	CHEM4314, CHEM3314
General Chemistry Laboratory I1 ENWR1001	5th Semester	Inorganic Chemistry II
Composition I: Rhetoric and Inquiry 3	CHEM3241	(Lecture and Laboratory)3 Cosmetic Science Requirement
MATH1201	Physical Chemistry I	Cosmetic Science Elective
Calculus I4	Physical Chemistry Laboratory I 2	Total14
UNIV1001	CHEM3281	10ta114
Transitioning to University Life1	Biochemistry I3	9th Semester
Total16	Advanced Mathematics Course***3	Cosmetic Science Requirements6
	Social and Behavioral Sciences	Graduate Requirements6

2nd Semester BIOL1252, BIOL1254 General Biology II (Lecture and Laboratory).....4 CHEM1202 General Chemistry II......3 CHEM1204 General Chemistry Laboratory II...........1 ENWR1002 Composition II: Research and Argument......3 MATH2202 Calculus II.....4 UNIV1002 Preparing for Professional Life.....1 Total.....16

*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.

**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

***Selected from MATH2203 Calculus III or MATH2337 Applied Statistics I.

****Three credits of a Social and Behavioral Sciences

Elective****.....3

Total.....14

10th Semester

COSC6548

****Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course). Total.....12

Total.....11

Cosmetic Science Laboratory...... 2

Cosmetic Science Requirements......6

Graduate Requirement......3

B.S. in Computer Science/M.S. in Computer Science

Graduate Course Requirements

Students should consult with their advisers for course selections and new course offerings.

Required Courses (20 credits)

BIOL6756

Dermal Pharmacology and
Immunology
CHEM6526
Product Development 3
CHEM6529
Microtoxicology and Biochemistry3
Credits
COSC6543
Hair-care Raw Materials and
Formulations
COSC6547
Skin-care Raw Materials and
Formulations
COSC6548
Cosmetic Science Laboratory 2
PHYS6753
Applied Colloid and Surface Science3

Cosmetic Science Electives (3 credits) CHEM6546

CHEM6546
Perfumery3
CHEM6773
Polymer Chemistry3
CHEM6781
Biochemistry3
COSC6542
Claims Substantiation3
COSC6549
Color Cosmetics3

A minimum of 120 credits is required for the B.S. degree, and a minimum of an additional 23 credits for the M.S. degree.

B.S. in Computer Science/ M.S. in Computer Science Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in computer science and a Master of Science degree in computer science with a combined course load of 141 credits, which is 9 credits less than that of the separate degrees.

Students are eligible to apply for the combined program after completing 60 undergraduate credits and obtaining a grade point ratio (GPR) of 3.00 or better in the first 15 credits of computer science courses. Applications should be submitted before the student has completed 27 credits of computer science courses. Upon completion of their undergraduate degrees, students who have maintained a 3.00 GPR in their computer science courses will be admitted to the graduate computer science program.

B.S./M.S. in Computer Science 120+21=141 credits

Computer Science Undergraduate Core Requirements (36 credits) Credits CSCI1201 Computer Programming I 3

Computer Frogramming 1
CSCI1202
Computer Programming II3
CSCI2215
Introduction to Computer Science3
CSCI2232
Data Structures3
CSCI2247
Assembly Language Programming3

L3C13240	
Computer Networks	3
CSCI3251	
Design of Software Systems	.3

Mathematical Foundations of	
Computer Science	3
CSCI6603	
Computer Architecture*	3
CSCI6623	

CSCI6638	
Operating Systems*	3
ENGR2286	
Digital System Design	3

Database Systems*......3

Science Requirements (16 credits)

Credits

,	Science A I with Lab
	Science A II with Lab
,	Science B I with Lab
	Science B II with Lab
	Mathematics Requirements (17 credits
	MATH1201
	Calculus I
	MATH2202
	Calculus II
	MATH2255
	Discrete Structures
	MATH3220
	Linear Algebra
	MATH3237
	Probability and Statistics I
	·
	Humanities Requirements (15 credits)
	Humanities Requirements (15 credits) ENGR2210
	ENGR2210
]	
]	ENGR2210 Technical Communications
]	ENGR2210 Technical Communications ENGR3000 Modern Technologies: Principles,
]	ENGR2210 Technical Communications
]	ENGR2210 Technical Communications ENGR3000 Modern Technologies: Principles, Applications and Impacts
]	ENGR2210 Technical Communications ENGR3000 Modern Technologies: Principles, Applications and Impacts
]	ENGR2210 Technical Communications
]	ENGR2210 Technical Communications
	ENGR2210 Technical Communications

Global Issues...... 3

Students must complete any two of the following concentrations: cybersecurity and information assurance, game and mobile application development, database management and information security administration.

Each concentration requires the successful completion of six courses (18 credits), of which three courses (9 credits) are already included in the computer science core requirements. The remaining three courses (9 credits) of each concentration are prescribed in the B.S. in computer science curriculum (see pages 155–156).

^{*}These courses can be applied to the M.S. degree, provided that the student earns a grade of B or better.

B.S. in Computer Science/M.S. in Management Information Systems

Below, the courses for any two concentrations, e.g. concentration A and concentration B, are designated as concentrations A I, A II and A III, and concentrations B I, B II and B III.

Concentration Requirements (18 credits)

	Credits
Concentration A I	3
Concentration A II	3
Concentration A III	3
Concentration B I	3
Concentration B II	3
Concentration B III	3

Free Electives (10 credits)

Total....120

Computer Science Graduate Requirements (21 credits)

Students will receive graduate credit for each of the graduate courses CSCI6603 Computer Architecture, CSCI6623 Database Systems and CSCI6638 Operating Systems in which they have received a grade of B or better.

In addition, students will take two more core courses.

core courses.
CSCI6620
Software Engineering3
CSCI7645
Systems Programming 3
and
Computer Science Electives15

The total combined degree is 141 credits (provided the student earns grades of B or better in the three graduate course taken as an undergraduate).

B.S. in Computer Science/ M.S. in Management **Information Systems Five-year Program**

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in computer science and a Master of Science degree in management information systems (MIS) with a combined course load of 141 credits, which is 9 credits less than that of the separate degrees.

Students are eligible to apply for the combined program after completing 60 undergraduate credits and obtaining a grade point ratio (GPR) of 3.00 or better in the first 15 credits of computer science courses. Applications should be submitted before the student has completed 27 credits of computer science courses. Upon completion of their undergraduate degrees, students who have maintained a 3.00 GPR in their computer science courses will be admitted to the graduate MIS program.

B.S. in Computer Science/M.S. in Management Information Systems 120+21=141 credits

Computer Science Undergraduate Core Requirements (36 credits) Credits CSCI1201

Computer Programming I3
CSCI1202
Computer Programming II3
CSCI2215
Introduction to Computer Science3
CSCI2232
Data Structures3
CSCI2247
Assembly Language Programming 3
CSCI3240
Computer Networks3
CSCI3251
Design of Software Systems3
CSCI3255
Mathematical Foundations of
Computer Science3
CSCI6603
Computer Architecture*3
CSCI6623
Database Systems*3
CSCI6638
Operating Systems*3
ENGR2286

^{*}These courses can be applied to the M.S. degree, provided that the student earns a grade of B or better.

Digital System Design.....3

Science Requirements (16 credits)
Credits
Science A I with Lab4
Science A II with Lab4
Science B I with Lab4
Science B II with Lab4
Mathematics Requirements (17 credits)
MATH1201
Calculus I4
MATH2202
Calculus II4
MATH2255
Discrete Structures
MATH3220
Linear Algebra
MATH3237 Probability and Statistics I
Probability and Statistics I
Humanities Requirements (15 credits)
ENGR2210
Technical Communications
ENGR3000
Modern Technologies: Principles,
Applications and Impacts
ENWR1001
Composition I: Rhetoric and Inquiry 3 ENWR 1002
Composition II: Research and
Argument
Humanities Elective
Trumanities Licetive
University Requirements (8 credits)
UNIV1001
Transitioning to University Life1
UNIV1002
Preparing for Professional Life1 UNIV2001
Cross-cultural Perspectives

Business Requirements (6 credits)

Global Issues...... 3

UNIV2002

ACCT5012 Financial Accounting: End-user Applications.....2 ECON5012 Economic Analysis.....2 MKTG5012 Marketing Principles.....2

Students must complete any two of the following concentrations: cybersecurity and information assurance, game and mobile application development, database management and information security administration.

B.S.E.E./M.S. in Computer Engineering

Each concentration requires the successful completion of six courses (18 credits), of which three courses (9 credits) are already included in the computer science core requirements. The remaining three courses (9 credits) of each concentration are prescribed in the B.S. in computer science curriculum (see pages 155–156).

Below, the courses for any two concentrations, e.g. concentration A and concentration B, are designated as concentrations A I, A II and A III, and concentrations B I, B II and B III.

Concentration Requirements (18 credits)

	Credits
Concentration A I	3
Concentration A II	3
Concentration A III	3
Concentration B I	3
Concentration B II	3
Concentration B III	3

Free Electives (4 credits)

Total....120

Management Information Systems Graduate Requirements (21 credits)

Students will receive graduate credit for each of the graduate courses CSCI6603 Computer Architecture, CSCI6623 Database Systems and CSCI6638 Operating Systems in which they have received a grade of B or better. In addition, they will take five additional core courses:

CSCI6720

Management Information Systems 3
CSCI6758
Electronic Commerce3
CSCI7727
Development of MIS I: Project
Management and Systems
Analysis3
CSCI7791
Information Systems for
Competitive Advantage3
Graduate Electives9

The total combined degree is 141 credits (provided the student earns grades of B or better in the three graduate course taken as an undergraduate).

B.S.E.E./M.S. in Computer Engineering

Five-year Program

Fairleigh Dickinson University offers a five-year program that allows qualified students to attain a Bachelor of Science in Electrical Engineering (B.S.E.E.) and a Master of Science (M.S.) degree in computer engineering with a combined degree load that is 9 credits less than that for the separate degrees.

Students must register for this program by their junior year and must have achieved a 2.75 cumulative grade point ratio.

A minimum of 128 credits is required for the B.S.E.E. degree and a minimum of 149 credits is required for the combined B.S.E.E./M.S. in computer engineering degrees.

Requirements

First Year

First Year
1st Semester Credits
ENGR1301
Engineering Practices, Graphics
and Design3
ENWR1001
Composition I: Rhetoric and Inquiry 3
MATH1201
Calculus I4
PHYS2201
Physics Laboratory I 1
PHYS2203
University Physics I3
UNIV1001
Transitioning to University Life1
Total15
2nd Semester
ENGR1204
Programming Languages in
Engineering3

Programming Languages in
Engineering3
ENGR2286
Digital System Design3
ENWR1002
Composition II: Research and
Argument3
MATH2202
Calculus II4
PHYS2202
Physics Laboratory II1
PHYS2204
University Physics II3
UNIV1002
Preparing for Professional Life1
Total18

Second Year Credits 3rd Semester EENG2221 Signals and Systems I.....4 EENG2287 Microprocessor System Design I.........3 ENGR3200 Advanced Engineering Programming.....3 MATH2210 Differential Equations...... 3 UNIV2001 Cross-cultural Perspectives......3 Total.....16 4th Semester EENG2222 Signals and Systems II......3 EENG3288 Microprocessor System Design II..........3 ENGR2210 Technical Communications......3 ENGR4221 Engineering Statistics and Reliability.....3 UNIV2002 Global Issues......3 Total.....15 Third Year 5th Semester **EENG3223** Linear Systems......3 **EENG3265 EENG4375** ENGR2221 MATH2203 Calculus III......3 Total.....15 6th Semester CHEM1201 General Chemistry I......3 CHEM1203 General Chemistry Laboratory I......1 EENG3224 Digital Signal Processing......3

Advanced Engineering Mathematics.....3

Applications and Impacts...... 3

Total.....16

Modern Technologies: Principles,

EENG3266

ENGR3000

ENGR3341

B.S.E.E./M.S.E.E.

Fourth Year		B.S.E.E./M.S
7th Semester	Credits	Five-year P
EENG3244		Fairleigh Dickins
Electromagnetic Fields	and Waves3	five-year program
EENG3267		dents to attain a
Electronics III	3	Electrical Engine
EENG4260		and a Master of
Preparation for Electric	al	Engineering (M.
Engineering Project.	1	bined degree loa
EENG4342		than that of the
Data Communications a		Students mus
Computer Networks	3	by their junior ye
EENG7725		achieved at least
Automatic Control Syst	ems I3	point ratio.
ENGR4210		A minimum o
Managerial and Enginee		for the B.S.E.E.
Economic Analysis		149 credits is red
	Total16	B.S.E.E./M.S.E.I
8th Semester		
CSCI2232	_	Requirements
Data Structures CSCI6603	3	First Year
Computer Architecture.	3	1st Semester
EENG4268		ENGR1301
Electrical Engineering F	Project2	Engineering P
EENG4341		and Design
Communication System	ıs3	ENWR1001
EENG4347		Composition I
Wireless Communication	on3	MATH1201
EENG7701		Calculus I
Logic System Design		PHYS2201
	Total17	Physics Labor PHYS2203
Fifth Year		University Phy UNIV1001
9th Semester		
CSCI6620		Transitioning
Software Engineering	3	
EENG7709	_	2nd Semester
Embedded Systems	3	ENGR1204
CSCI Graduate Elective		Programming
EENG Graduate Elective		Engineerin
	Total12	ENGR2286
10th Semester		Digital System
CSCI Graduate Elective		ENWR1002
EENG or CSCI Graduate E		Composition
m . 1D D	Total9	Argument.
Total Degree Requirements		MATH2202
For full details, consult		Calculus II
or the <i>Graduate Studies B</i>	инепп.	PHYS2202
		Physics Labor
		DLIVC2204

B.S.E.E./M.S.E.E.
Five-year Program
Fairleigh Dickinson University offers a five-year program that allows qualified students to attain a Bachelor of Science in Electrical Engineering (B.S.E.E.) degree and a Master of Science in Electrical Engineering (M.S.E.E.) degree with a combined degree load that is 9 credits less than that of the separate degrees. Students must register for this program by their junior year and must have achieved at least a 2.75 cumulative grade point ratio. A minimum of 128 credits is required
for the B.S.E.E. degree and a minimum of
149 credits is required for the combined B.S.E.E./M.S.E.E. degrees.
Requirements
First Year
1st Semester Credits
ENGR1301
Engineering Practices, Graphics and Design
ENWR1001
Composition I: Rhetoric and Inquiry 3
MATH1201
Calculus I4 PHYS2201
Physics Laboratory I1
PHYS2203 University Physics I3
UNIV1001
Transitioning to University Life1 Total 15
2nd Semester
ENGR1204
Programming Languages in Engineering
ENGR2286
Digital System Design3 ENWR1002
Composition II: Research and
Argument
MATH2202 Calculus II4
PHYS2202
Physics Laboratory II1 PHYS2204
University Physics II3
UNIV1002

Preparing for Professional Life.....1

Total.....18

Second Year
3rd Semester Credits
EENG2221
Signals and Systems I4 EENG2287
Microprocessor System Design I3
ENGR3200
Advanced Engineering Programming3
MATH2210
Differential Equations3
UNIV2001 Cross-cultural Perspectives3
Total16
4th Semester
EENG2222
Signals and Systems II3
EENG3288
Microprocessor System Design II3
ENGR2210 Technical Communications3
ENGR4221
Engineering Statistics and Reliability3
UNIV2002
Global Issues3
Total15
Third Year
5th Semester
EENG3223
Linear Systems
EENG3265
Electronics I3
EENG4375
Electrical Energy Conversion3 ENGR2221
Statics
MATH2203
Calculus III3
Total15
6th Semester
CHEM1201
General Chemistry I3 CHEM1203
General Chemistry Laboratory I1
EENG3266
Electronics II3
ENGR3000
Modern Technologies: Principles,
Applications and Impacts3
ENGR3341
ENGR3341 Advanced Engineering Mathematics3
ENGR3341

*Six credits must be selected from the technical electives list for the engineering curriculum, copies of which can be obtained through the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering. Choices must be approved by an academic adviser.

B.S. in Hotel and Restaurant Management/M.S. in Hospitality Management Studies

Fourth Year
7th Semester Credits
EENG3244
Electromagnetic Fields and Waves3
EENG3267
Electronics III
EENG4260
Preparation for Electrical
Engineering Project
EENG4342
Data Communications and
Computer Networks3
EENG6633
Digital Signal Processing
EENG7725
Automatic Control Systems I
Total 16
8th Semester
EENG4268
Electrical Engineering Project2
EENG4341
Communication Systems
EENG4347
Wireless Communication
EENG7701
Logic System Design
ENGR4210
Managerial and Engineering
Economic Analysis
Technical Elective*
Total 17
9th Semester
EENG6747
Digital Communications
EENG7709
Embedded Systems
EENG Graduate Electives
Total12
10th Semester
EENG Graduate Elective
EENG or CSCI Graduate Electives
Total9
Total Degree Requirements

For full details, consult an adviser and/or the *Graduate Studies Bulletin*.

B.S. in Hotel and Restaurant Management/M.S. in Hospitality Management Studies Five-year Program
Recommended Course
Sequencing
1st Semester Credits ENGL1111
Literature and Composition I
ENWR1001
Composition I: Rhetoric and Inquiry 3 HRTM1101
Career Orientation and Professional
Development
HRTM2500 Professional Development Sequence
(PDS) Lab0
DSCI1234
Mathematics for Business Decisions
or
MATH1141
Introduction to Mathematical Methods3
MIS1045
Information Technology for Business or
MIS1135
Introduction to Computers 3 PSYC1103
General Psychology
or
PSYC1141
Psychology I3
UNIV1000
Transitioning to University Life
2nd Semester
ACCT1131
Accounting I
Or ACCT2021
ACCT2021 Introductory Financial Accounting3
introductory i manetal Accounting

^{*}A student may satisfy this liberal arts requirement (foreign language) in one of four ways: 1) Recommend 6 credits of the same foreign language; 2) Language and culture courses: each course listed in the Undergraduate Studies Bulletin as "Language and Cultural Studies" will fulfill three credits toward this requirement; 3) English for Professional Success: International students can fulfill this requirement by the successful completion of the English for Professional Success (EPS) requirement; 4) Study abroad: Students can fulfill this requirement by taking six credits of an immersion course in any language followed by a University-approved intercultural travel experience.

Credits
ENGL1112
Literature and Composition II or
ENWR1002
Composition II: Research and
Argument3
HRTM1100
Professional Development Sequence
(PDS) Work Experience 11
HRTM1102
Professional Skill Development1
HRTM2500
Professional Development
Sequence (PDS) Lab0
POLS1102
Geography and World Issues3
UNIV1002
Preparing for Professional Life1
Foreign Language Requirement* 3
Free Elective**
Total18
3rd Semester
COMM2101
Professional Communication 3
ECON1121
Macroeconomics3
HRTM2103
Management Values and Professional
Standards2
HRTM2211
Accounting for Hospitality Managers 3
HRTM2500
Professional Development Sequence
(PDS) Lab0
DSCI2029
Introduction to Statistics
or
MATH1142
Introduction to Statistics3
UNIV2001
Cross-cultural Perspectives 3 Total17

*A student may satisfy this liberal arts requirement (foreign language) in one of four ways: 1) Recommend 6 credits of the same foreign language; 2) Language and culture courses: each course listed in the Undergraduate Studies Bulletin as "Language and Cultural Studies" will fulfill three credits toward this requirement; 3) English for Professional Success. International students can fulfill this requirement by the successful completion of the English for Professional Success (EPS) requirement; 4) Study abroad: Students can fulfill this requirement by taking six credits of an immersion course in any language followed by a University-approved intercultural travel experience.

**Adviser-approved courses offered by Anthony J. Petrocelli College of Continuing Studies, Silberman College of Business and University College: Arts • Sciences • Professional Studies.

^{*}Six credits must be selected from the technical electives list for the engineering curriculum, copies of which can be obtained through the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering. Choices must be approved by an academic adviser.

B.S. in Information Technology/M.S. in Computer Science

4th Semester	Credits	Credi
HRTM2100		MIS2001
Professional Development Seque		Management Information Systems
(PDS) Work Experience 2	1	Total1
HRTM2104		7th Semester
The Hospitality Manager and La	w2	HRTM2500
HRTM2211	7	Professional Development Sequence
Accounting for Hospitality Mana HRTM2235	agers 3	(PDS) Lab
Sustainability and Ecotourism	3	HRTM4107
HRTM2500		Concepts in Transportation and Travel
Professional Development Seque	ence	HRTM4204
(PDS) Lab		Property Management
HRTM3208		HRTM7734
Financial Management in the		Global Marketing for
Hospitality Industry	3	Hospitality Executives
SPCH1155		Graduate Elective
Public Speaking	3	Free Elective*
UNIV2002	_	Total 1
Global Issues.		8th Semester
10	tal18	HRTM2500
5th Semester		Professional Development Sequence
HRTM2210		(PDS) Lab
Sales and Marketing for Hospita		HRTM4108
Managers	3	Global Issues in Hospitality
HRTM2500		Management (seminar abroad)
Professional Development Seque (PDS) Lab		HRTM4109
HRTM3105		Hospitality Operations Tactics
Managerial Challenges in the		and StrategyHRTM7708
Workplace	1	Organizational Communication
HRTM3108		and Conflict Management
Nutrition, Sanitation and Food S	Safety3	HRTM7714
HRTM3203		Advanced Human Resource
Food and Beverage Management	3	Management
HRTM3209	_	Free Elective
Human Resource Managmeent		Total1
Laboratory Science Elective		9th Semester
10	tal16	HRTM7713
6th Semester		Financial Management
HRTM2500		HRTM7716
Professional Development Seque		Service Management
(PDS) LabHRTM3100	0	HRTM
Professional Development Seque	nce	Graduate Elective
(PDS) Work Experience 3		Total
HRTM3106	1	10th Semester
The Manager and the Group:		HRTM7715
Work Experience	1	Special Project
HRTM3207		HRTM7738
Lodging Operations and Revenu	e	Advanced Graduate Practicum
Management	3	HRTM7752
HRTM4280		Research Methodology II
Domestic and International Tour	rism3	Total
HRTM7710	_	
Current Concepts in Leadership	3	*Adviser-approved courses offered by Anthony J.
HRTM7751	7	Petrocelli College of Continuing Studies, Silberman College of Business and University College: Arts •
Research Methodology I	3	Sciences • Professional Studies.

MIS2001 Management Information Systems	
Management Information Systems	Credits MIS2001
HRTM2500 Professional Development Sequence (PDS) Lab	Management Information Systems3
Professional Development Sequence	
(PDS) Lab	
HRTM4107 Concepts in Transportation and Travel	Professional Development Sequence
Concepts in Transportation and Travel	
Travel	
Property Management	
HRTM7734 Global Marketing for Hospitality Executives	
Global Marketing for Hospitality Executives	
Hospitality Executives	
Graduate Elective*	Hospitality Executives 3
### Total	Graduate Elective
### Semester ### HRTM2500 Professional Development Sequence	
HRTM2500 Professional Development Sequence (PDS) Lab	
Professional Development Sequence (PDS) Lab	
(PDS) Lab	
Global Issues in Hospitality Management (seminar abroad)	
Management (seminar abroad) 2 HRTM4109 Hospitality Operations Tactics and Strategy 3 HRTM7708 Organizational Communication and Conflict Management 3 HRTM7714 Advanced Human Resource Management 3 Free Elective 3 Total 14 9th Semester 14 HRTM7713 Financial Management 3 HRTM7716 Service Management 3 HRTM Graduate Elective 3 Total 9 10th Semester HRTM7715 Special Project 0 HRTM7738 Advanced Graduate Practicum 3 HRTM7752 Research Methodology II 3 Research Methodology II 3 *Adviser-approved courses offered by Anthony I.	
HRTM4109	
Hospitality Operations Tactics and Strategy	
and Strategy	
Organizational Communication and Conflict Management	
and Conflict Management	
HRTM7714 Advanced Human Resource Management	
Advanced Human Resource Management	
Free Elective	
### Total	
9th Semester HRTM7713 Financial Management	
HRTM7713 Financial Management	
Financial Management	
HRTM7716 Service Management	
Service Management	
HRTM Graduate Elective	
Graduate Elective	
10th Semester HRTM7715 Special Project	Graduate Elective3
HRTM7715 Special Project	Total9
Special Project	
HRTM7738 Advanced Graduate Practicum	
Advanced Graduate Practicum	
HRTM7752 Research Methodology II	
Research Methodology II	
Total6 *Adviser-approved courses offered by Anthony I.	
*Adviser-approved courses offered by Anthony J.	
	*Adviser-approved courses offered by Anthony J.

B.S. in Information Technology/M.S. in Computer **Science**

Five-year Program

Fairleigh Dickinson University offers a five-year program that allows qualified students to attain a Bachelor of Science (B.S.) degree in information technology and a Master of Science (M.S.) degree in computer science with a combined degree load that is 9 credits less than that for the separate degrees.

Students must register for this program by their junior year and must have achieved a cumulative grade point ratio of at least 3.00.

A minimum of 123 credits is required for the B.S. in information technology degree, and a minimum of 144 credits is required for the combined B.S. in information technology/M.S. in computer science degrees.

Requirements

First Year

1st Semester	Credits
CSCI1105	
Survey of Computers and	
Computer Software	3
ENWR1001	
Composition I: Rhetoric and I	nquiry 3
INFO1101	
Computer Concepts and Tech	nology 3
MATH1105	
College Algebra	4
UNIV1001	
Transitioning to University Life	fe1
	Total14

Total14
2nd Semester
ART1177
Introduction to Digital Media3
ENWR1002
Composition II: Research and
Argument3
INFO1201
Information Technology3
MATH1107
Precalculus4
UNIV1002
Preparing for Professional Life1 Total14

B.S. in Biochemistry/Doctor of Pharmacy

Second Year
3rd Semester Credits EGTG2210
Technical Communications
Computer Programming for
Information Technologists I3 INFO2105
Internet and Web Applications
UNIV2001
Cross-cultural Perspectives
Total16
4th Semester
ENGR2286 Digital System Design3
INFO2102
Computer Programming for
Information Technologists II3 INFO2106
Website Design and Management3
UNIV2002 Global Issues
Laboratory Science Elective4
Total16
Third Year
5th Semester
CSCI2232 Data Structures
CSCI2247
Assembly Language Programming or
EENG2287
Microprocessor System Design I3 ENGR3000
Modern Technologies: Principles,
Applications and Impacts3 MATH2337
Applied Statistics I3
Information Technology Elective3 Total15
6th Semester CSCI6623
Database Systems
Operating Systems3
INFO3201 Human Computer Interface3
INFO3205
Digital Media Publishing
Information Technology Elective

Fourth Year	
7th Semester Cre	edits
CSCI6603	
Computer Architecture	3
ENGR4210	
Managerial and Engineering	
Economic Analysis	3
INFO4101	
Data Communications and	_
Computer Networks I	5
INFO4201	
Information Technology Needs Assessment and Management	7
MATH2255	3
Discrete Structures	7
Information Technology Elective	
Total	18
Total	10
8th Semester	
CSCI3274	
Linux System Administration	3
INFO4205	
Information Technology Capstone	
Project	3
INFO4410	
Foundations of Cybersecurity	3
INFO4844	
Programming for the Internet	3
Information Technology Elective	3
Total	15
Fifth Year	
9th Semester	
CSCI6620	
Software Engineering	3
Graduate Computer Science Electives	
Total	12
10th Semester	
CSCI7645	
Systems Programming	3
Graduate Computer Science Electives	
Total	
Total Degree Requirements	.144

For full details consult an adviser and/or the

Graduate Studies Bulletin.

B.S. in Biochemistry/Doctor of Pharmacy Seven-year Program

(with FDU School of Pharmacy and Health Sciences, Fairleigh Dickinson University)

Fairleigh Dickinson University sophomores and high school seniors can apply to the the B.S. in biochemistry plus Pharm.D. combined program (3+4) offered by the School of Pharmacy and Health Sciences.

Sophomore applicants studying biochemistry (minimum of 30 credits, maximum of 60 credits) and maintaining a 3.30 grade point ratio must also have a grade of B- or better in all prerequisite college courses. The program is even more competitive for high school students seeking admission: students must have an SAT score of 1150 or higher (on the 1600 scale) and a 3.50 grade point average.

The program is structured so that students complete three years of undergraduate work in a "feeder" science major through the Maxwell Becton College of Arts and Sciences or University College: Arts • Sciences • Professional Studies before transitioning to the School of Pharmacy and Health Sciences to begin four years of graduate work. They ultimately achieve both a Bachelor of Science and Doctor of Pharmacy.

Metropolitan Campus

A minimum of 120 credits for the B.S. degree; 100–104 of these are taken at the Metropolitan Campus in years 1–3 + 28 credits (to be approved by the department chair/director) in year 4 at FDU's School of Pharmacy and Health Sciences. Students not accepted into FDU's School of Pharmacy and Health Sciences have the option of switching out of the B.S. in biochemistry/Pharm.D. combined degree and into another concentration.

B.S. in Biochemistry and Doctor of Pharmacy Combined Degree

1st Semester	Credits
BIOL1251	
General Biology I	3
BIOL1253	
Laboratory: General Biology I	1
CHEM1201	
General Chemistry I	3
CHEM1203	
General Chemistry Laboratory I	1

B.S. in Biochemistry/Doctor of Pharmacy

Credits	4th Semester	Credits	7th Semester	Credits
ENWR1001	CHEM2262		PHRM6100	
Composition I: Rhetoric and Inquiry 3	Organic Chemistry II	3	Foundations in Pharma	aceutical
MATH1201	CHEM2264		Science: Pharmacole	ogy,
Calculus I4	Organic Chemistry Labora	tory II2	Medicinal Chemistr	
UNIV1001	PHYS2202	J	Pharmacokinetics	
Transitioning to University Life1	Physics Laboratory II	1	PHRM6101	
Total16	PHYS2204		Foundations in Integra	ted
	University Physics II	3	Pharmacotherapy I:	
2nd Semester	SPCH		Introduction to Path	
BIOL1252	Oral Communication Elect	ive* 3	Genetics, Microbiol	
General Biology II3	UNIV2002	170	Delivery of Care	
BIOL1254	Global Issues	7	PHRM6201	
Laboratory: General Biology II1	Humanities Course**		Pharmaceutics I: Physic	cal Dharmacy 3
CHEM1202	Trumamities Course	Total18	PHRM6211	Jai i marmacy
General Chemistry II3	54.0	1014110	Pharmaceutical Calcula	ntions I 1
CHEM1204	5th Semester		PHRM6301	1110115 11
General Chemistry Laboratory II1	BIOL2203, BIOL2223		Medical Communication	on and
ENWR1002	Human Anatomy and Phys		Technical Writing	
Composition II: Research and	(Lecture and Laborator	y) 4	PHRM6321	∠
Argument 3	BIOL2210, BIOL2211			
MATH2202	Genetics (Lecture and Lab	oratory)4	Pharmacy Practice Law	/2
Calculus II4	CHEM3241, CHEM3243		PHRM6401	D t
UNIV1002	Physical Chemistry I		Professional Pharmacy	
Preparing for Professional Life1	(Lecture and Laborator	y)	Health Care Deliver	·y3
Total16	or		PHRM6700	
3rd Semester	CHEM4233, CHEM4234		Beyond the Curriculum	
BIOL4405	Instrumental Analysis		Foundations in Pha	•
Ethics in Science3	(Lecture and Laborator	y) 5	Education (1)	
CHEM2261	CHEM3281			Total18
Organic Chemistry I3	Biochemistry I	3	8th Semester	
CHEM2263		Total16	PHRM6102	
Organic Chemistry Laboratory I2	6th Semester		Integrated Pharmacoth	erapy II:
PHYS2201	BIOL2204, BIOL2224		Gastrointestinal	
Physics Laboratory I1	Human Anatomy and Phys	iology II	PHRM6103	
PHYS2203	(Lecture and Laborator		Integrated Pharmacoth	erapy III:
University Physics I3	BIOL6733		Dermatology, Over-	
UNIV2001	Enzymology	3	Remedies and Self (
Cross-cultural Perspectives3	CHEM3231, CHEM3232		PHRM6104	
Humanities Course*	Analytical Chemistry		Integrated Pharmacoth	erapy IV:
Total18	(Lecture and Laborator	y) 4	Cardiology/Pulmona	
	BIOL4901		PHRM6111	v
	Biology Seminar II	1	Integrated Pharmacoth	erapy II–IV:
	or		Conceptual Connec	
	CHEM3242, CHEM3244		Patient Care	
	Physical Chemistry II		PHRM6202	
	(Lecture and Laborator	y) 5	Pharmaceutics II - Ora	ıl Dosage
	MATH2337		Forms and Biophari	
	Applied Statistics I	3	Pharmacokinetics	
	11	Total15	PHRM6402	
			Professional Pharmacy	Practice II:
			Communication in l	
*Take 3 credits from ENGL (except developmental			PHRM6701	
English), HIST, HUMN, LANG, PHIL or RELI			Beyond the Curriculum	1:
courses. Or take ART1103 Principles of Art			Foundations in Pha	
Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art			Education (2)	•
to Mid-century, ART1131 History of Graphic Design				Total 17
and Illustration, ART1133 History of Photography,	wn	Pro C I		
ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of	*Requirements consist of a three-cre course.	ан Ѕреесн		
Fashion Design, ART2137 Global Roots of American	**Take 3 credits from ENGL, HIST, F	IUMN, LANG.		
Architecture or ART2238 The Global Art World.	PHIL or RELI courses at the 2000-le			

B.S. in Biochemistry/Doctor of Pharmacy

School of Pharmacy and Health	Credits	Credits
Sciences Courses for All	PHRM8110	PHRM9207
Undergraduate Majors	Integrated Pharmacotherapy X:	Advanced Pharmacy Practice
Years 5 through 7	Hematology and Oncology3 PHRM8111	Experience (APPE) V: Elective –
Credits	Integrated Pharmacotherapy IX–X:	Medication Therapy
PHRM6501	Conceptual Connections and	Management I
Introductory Pharmacy Practice	Patient Care	Advanced Pharmacy Practice
Experience (IPPE) I:	PHRM8112	Experience (APPE) V: Elective –
Community4	Integrated Pharmacotherapy I–X:	HIV/AIDS I5
PHRM7105	A Whole System Overview and	PHRM9211
Integrated Pharmacotherapy V:	Effecting Patient Care2	Advanced Pharmacy Practice
Neurology, Psychiatry and	PHRM8201	Experience (APPE) V: Elective –
Anesthesiology4	Pharmacogenomics and	Home Infusion I5
PHRM7106	Personalized Medicine	PHRM9301
Integrated Pharmacotherapy VI:	PHRM8301	Advanced Pharmacy Practice
Infectious Disease4	Pharmacoepidemiology,	Experience (APPE) VI: Elective –
PHRM7107	Pharmacoeconomics and	Hospital Practice I5
Integrated Pharmacotherapy VII:	Health Outcomes3	PHRM9303
Cardiology/Pulmonary II 4 PHRM7108	PHRM8302	Advanced Pharmacy Practice
Integrated Pharmacotherapy VIII:	Public Health and the Global	Experience (APPE) VI: Elective –
Endocrine, Urinary Tract,	Mission of Pharmacy2	Acute Care I5
Renal and Reproductive Health4	PHRM8321	PHRM9305
PHRM7111	Health Care Ethics and Team	Advanced Pharmacy Practice
Integrated Pharmacotherapy V–VI:	Decision Making1	Experience (APPE) VI: Elective –
Conceptual Connections and	PHRM8402	Long Term Care I5 PHRM9307
Patient Care2	Professional Pharmacy Practice IV: Pharmacy Leadership and	
PHRM7112	Management2	Advanced Pharmacy Practice Experience (APPE) VI: Elective –
Integrated Pharmacotherapy	PHRM8700	Infectious Disease I5
VII-VIII: Conceptual	Beyond the Curriculum/	PHRM9309
Connections and Patient Care2	Preparing Practitioners (1)0	Advanced Pharmacy Practice
PHRM7201	PHRM8701	Experience (APPE) VI: Elective –
Pharmaceutics III: Dosage Forms	Beyond the Curriculum/	Oncology I5
and Drug Delivery Systems2	Preparing Practitioners (2)1	PHRM9311
PHRM7202	PHRM9101	Advanced Pharmacy Practice
Pharmaceutics IV: Sterile Products	Advanced Pharmacy Practice	Experience (APPE) VI: Elective –
and Biopharmaceuticals2	Experience (APPE) I: Community5	Critical Care I5
PHRM7301	PHRM9102	PHRM9313
Biostatistics	Advanced Pharmacy Practice	Advanced Pharmacy Practice
PHRM7302	Experience (APPE) II: Institutional5	Experience (APPE) VI: Elective –
Epidemiology and Study Design Evaluation3	PHRM9103	Cardiology I 5
PHRM7401	Advanced Pharmacy Practice	PHRM9315
Professional Pharmacy Practice	Experience (APPE) III:	Advanced Pharmacy Practice
III: Drug Information,	Ambulatory Care5	Experience (APPE) VI: Elective –
Informatics and Toxicology2	PHRM9104	Behavioral Health I5
PHRM7501	Advanced Pharmacy Practice Experience (APPE) IV: Acute Care5	PHRM9401 Advanced Pharmacy Practice
Introductory Pharmacy Practice	PHRM9201	Experience (APPE) VII: Elective –
Experience (IPPE) II: Institutional4	Advanced Pharmacy Practice	Drug Information I5
PHRM7700	Experience (APPE) V: Elective –	PHRM9403
Beyond the Curriculum:	Community Practice I	Advanced Pharmacy Practice
Expanding Horizons (1)0	PHRM9203	Experience (APPE) VII: Elective –
PHRM7701	Advanced Pharmacy Practice	Medication Safety I5
Beyond the Curriculum: Expanding	Experience (APPE) V: Elective –	PHRM9405
Horizons (2)1	Ambulatory Care I5	Advanced Pharmacy Practice
PHRM8109	PHRM9205	Experience (APPE) VII: Elective –
Integrated Pharmacotherapy IX:	Advanced Pharmacy Practice	Managed Care I5
Autoimmune Diseases, Rare	Experience (APPE) V: Elective –	
Diseases and Special Populations3	Community Compounding I 5	

B.S. in Biochemistry/Doctor of Pharmacy

Credits	Florham Campus	4th Semester Credits
PHRM9407		BIOL1206
Advanced Pharmacy Practice	B.S. in Biochemistry and Doctor of	Anatomy and Physiology II4
Experience (APPE) VII: Elective –	Pharmacy Combined Degree*	BIOL1208
Specialty Pharmacy I5	1st Semester Credits	Lab: Anatomy and Physiology II
PHRM9409	BIOL1201, BIOL1211	CHEM2262, CHEM2266
Advanced Pharmacy Practice	Biological Diversity4	Organic Chemistry II
Experience (APPE) VII: Elective –	BIOL1203	CHEM2264
Medical Device/Patient Safety I 5	Lab: Biological Diversity0	Organic Chemistry Laboratory II1
PHRM9501	CHEM1201, CHEM1211	MATH1133
Advanced Pharmacy Practice	General Chemistry I3	Applied Statistics
Experience (APPE) VIII:	CHEM1203	PHYS2004, PHYS2024
Elective – Public Health I5	General Chemistry Laboratory I1	General Physics with Calculus II4
PHRM9503	ENGW1101	PHYS2014
Advanced Pharmacy Practice	College Writing Workshop3	Lab: General Physics with Calculus II(
Experience (APPE) VIII:	MATH1203	Total15
Elective – Industry I5	Calculus I4	5th Semester
PHRM9505	UNIV1001	CHEM3241, CHEM3245
Advanced Pharmacy Practice	Transitioning to College Life1	Physical Chemistry I
Experience (APPE) VIII:	Total16	CHEM3243
Elective – Research I5	10tui10	Physical Chemistry Laboratory I2
PHRM9507	2nd Semester	CHEM3281
Advanced Pharmacy Practice	BIOL1202, BIOL1212	Biochemistry I
Experience (APPE) VIII:	Introduction to Molecules, Cells	CHEM3389
Elective – Marketing I5	and Genes4	Biochemistry Laboratory1
PHRM9509	BIOL1204	UNIV1002
Advanced Pharmacy Practice	Introduction to Molecules, Cells	Preparing for Professional Life 1
Experience (APPE) VIII:	and Genes Lab0	Language Course4
Elective – Patient Advocacy I5	CHEM1202, CHEM1212	Total14
PHRM9511	General Chemistry II3	6th Semester
Advanced Pharmacy Practice	CHEM1204	CHEM2221
Experience (APPE) VIII:	General Chemistry Laboratory II1	Analytical Chemistry4
Elective – Health Care	ENGW1102	CHEM2223
Organization Management I5	Research Writing Workshop3	Lab: Analytical Chemistry 0
PHRM9513	MATH2202	CHEM3242, CHEM3246
Advanced Pharmacy Practice	Calculus II4	Physical Chemistry II
Experience (APPE) VIII:	Total15	CHEM3244
Elective – Informatics I5	3rd Semester	Physical Chemistry Laboratory II2
PHRM9515	BIOL1205	CHEM3282
Advanced Pharmacy Practice	Anatomy and Physiology I4	Biochemistry II
Experience (APPE) VIII:	BIOL1207	ECON2001
Elective – Management I5	Lab: Anatomy and Physiology I0	Introduction to Microeconomics
PHRM9517	CHEM2261, CHEM2265	Textual and Aesthetic Analysis
Advanced Pharmacy Practice	Organic Chemistry I3	Total18
Experience (APPE) VIII:	CHEM2263	7th Semester
Elective – Regulatory I5	Organic Chemistry Laboratory I1	PHRM6100
PHRM9900	PHYS2003, PHYS2023	Foundations in Pharmaceutical
Pharmacy Capstone I 1	General Physics with Calculus I4	Science: Pharmacology,
PHRM9901	PHYS2013	Medicinal Chemistry,
Pharmacy Capstone II2	Lab: General Physics with	Pharmacokinetics4
	Calculus I0	PHRM6101
	SPCH1107	Foundations in Integrated
	Fundamentals of Speech3	Pharmacotherapy I: An
	Total15	Introduction to Pathophysiology,
		Genetics, Microbiology and

Delivery of Care......3

^{*}This is not American Chemical Society (ACS) certified.

B.S. in Biochemistry/Doctor of Pharmacy

Credits	Credits	Credits
PHRM6201	PHRM7105	PHRM8112
Pharmaceutics I: Physical Pharmacy 3	Integrated Pharmacotherapy V:	Integrated Pharmacotherapy I-X:
PHRM6211	Neurology, Psychiatry and	A Whole System Overview and
Pharmaceutical Calculations I 1	Anesthesiology4	Effecting Patient Care2
PHRM6301	PHRM7106	PHRM8201
Medical Communication and	Integrated Pharmacotherapy VI:	Pharmacogenomics and
Technical Writing2	Infectious Disease4	Personalized Medicine
PHRM6321	PHRM7107	PHRM8301
Pharmacy Practice Law2	Integrated Pharmacotherapy VII:	Pharmacoepidemiology,
PHRM6401	Cardiology/Pulmonary II4	Pharmacoeconomics and
Professional Pharmacy Practice I:	PHRM7108	Health Outcomes3
Health Care Delivery3	Integrated Pharmacotherapy VIII:	PHRM8302
PHRM6700	Endocrine, Urinary Tract,	Public Health and the Global
Beyond the Curriculum:	Renal and Reproductive Health4	Mission of Pharmacy2
Foundations in Pharmacy	PHRM7111	PHRM8321
Education (1)0 Total18	Integrated Pharmacotherapy V–VI:	Health Care Ethics and Team
	Conceptual Connections and Patient Care2	Decision Making1 PHRM8402
8th Semester	PHRM7112	Professional Pharmacy Practice IV:
PHRM6102	Integrated Pharmacotherapy	Pharmacy Leadership and
Integrated Pharmacotherapy II:	VII–VIII: Conceptual	Management2
Gastrointestinal3	Connections and Patient Care2	PHRM8700
PHRM6103	PHRM7201	Beyond the Curriculum/
Integrated Pharmacotherapy III: Dermatology, Over-the-Counter	Pharmaceutics III: Dosage Forms	Preparing Practitioners (1)0
Remedies and Self Care 3	and Drug Delivery Systems2	PHRM8701
PHRM6104	PHRM7202	Beyond the Curriculum/
Integrated Pharmacotherapy IV:	Pharmaceutics IV: Sterile Products	Preparing Practitioners (2)1
Cardiology/Pulmonary I	and Biopharmaceuticals2	PHRM9101
PHRM6111	PHRM7301	Advanced Pharmacy Practice
Integrated Pharmacotherapy II–IV:	Biostatistics2	Experience (APPE) I: Community5
Conceptual Connections and	PHRM7302	PHRM9102
Patient Care	Epidemiology and Study Design	Advanced Pharmacy Practice
PHRM6202	Evaluation3	Experience (APPE) II: Institutional5
Pharmaceutics II – Oral Dosage	PHRM7401	PHRM9103
Forms and Biopharmaceutics/	Professional Pharmacy Practice	Advanced Pharmacy Practice
Pharmacokinetics2	III: Drug Information,	Experience (APPE) III:
PHRM6212	Informatics and Toxicology2	Ambulatory Care5
Pharmaceutical Calculations IL1	PHRM7501	PHRM9104
PHRM6402	Introductory Pharmacy Practice	Advanced Pharmacy Practice
Professional Pharmacy Practice II:	Experience (IPPE) II: Institutional4	Experience (APPE) IV: Acute Care5
Communication in Health Care2	PHRM7700	PHRM9201
PHRM6701	Beyond the Curriculum:	Advanced Pharmacy Practice
Beyond the Curriculum:	Expanding Horizons (1)0	Experience (APPE) V: Elective –
Foundations in Pharmacy	PHRM7701	Community Practice I
Education (2)1	Beyond the Curriculum: Expanding Horizons (2)1	Advanced Pharmacy Practice
Total17	PHRM8109	Experience (APPE) V: Elective –
	Integrated Pharmacotherapy IX:	Ambulatory Care I5
School of Pharmacy and Health	Autoimmune Diseases, Rare	PHRM9205
Sciences Courses for All	Diseases and Special Populations3	Advanced Pharmacy Practice
Undergraduate Majors	PHRM8110	Experience (APPE) V: Elective –
Years 5 through 7	Integrated Pharmacotherapy X:	Community Compounding I5
PHRM6501	Hematology and Oncology3	PHRM9207
Introductory Pharmacy Practice	PHRM8111	Advanced Pharmacy Practice
Experience (IPPE) I:	Integrated Pharmacotherapy IX–X:	Experience (APPE) V: Elective –
Community4	Conceptual Connections and	Medication Therapy
	Patient Care2	Management I5

Credits

B.S. in Biology/Doctor of Chiropractic

Credits
PHRM9209
Advanced Pharmacy Practice
Experience (APPE) V: Elective –
HIV/AIDS I 5
PHRM9211
Advanced Pharmacy Practice
Experience (APPE) V: Elective –
Home Infusion I5
PHRM9301
Advanced Pharmacy Practice
Experience (APPE) VI: Elective –
Hospital Practice I5
PHRM9303
Advanced Pharmacy Practice
Experience (APPE) VI: Elective –
Acute Care I5
PHRM9305
Advanced Pharmacy Practice
Experience (APPE) VI: Elective –
Long Term Care I5
PHRM9307
Advanced Pharmacy Practice
Experience (APPE) VI: Elective –
Infectious Disease I5
PHRM9309
Advanced Pharmacy Practice
Experience (APPE) VI: Elective –
Oncology I5
PHRM9311
Advanced Pharmacy Practice
Experience (APPE) VI: Elective –
Critical Care I5
PHRM9313
Advanced Pharmacy Practice
Experience (APPE) VI: Elective –
Cardiology I5
PHRM9315
Advanced Pharmacy Practice
Experience (APPE) VI: Elective –
Behavioral Health I5
PHRM9401
Advanced Pharmacy Practice
Experience (APPE) VII: Elective –
Drug Information I5
PHRM9403
Advanced Pharmacy Practice
Experience (APPE) VII: Elective –
Medication Safety I5
PHRM9405
Advanced Pharmacy Practice
Experience (APPE) VII: Elective –
Managed Care I5
PHRM9407
Advanced Pharmacy Practice
Experience (APPE) VII: Elective –
Specialty Pharmacy L5

PHRM9409
Advanced Pharmacy Practice
Experience (APPE) VII: Elective –
Medical Device/Patient Safety I 5
PHRM9501
Advanced Pharmacy Practice
Experience (APPE) VIII:
Elective – Public Health I
PHRM9503
Advanced Pharmacy Practice
Experience (APPE) VIII:
Elective – Industry I
PHRM9505
Advanced Pharmacy Practice
Experience (APPE) VIII:
Elective – Research I
PHRM9507
Advanced Pharmacy Practice
Experience (APPE) VIII:
Elective – Marketing I
PHRM9509
Advanced Pharmacy Practice
Experience (APPE) VIII:
Elective – Patient Advocacy I
PHRM9511
Advanced Pharmacy Practice
Experience (APPE) VIII:
Elective – Health Care
Organization Management I
PHRM9513
Advanced Pharmacy Practice
Experience (APPE) VIII:
Elective – Informatics I
PHRM9515
Advanced Pharmacy Practice
Experience (APPE) VIII:
Elective – Management I
PHRM9517
Advanced Pharmacy Practice
Experience (APPE) VIII:
Elective – Regulatory I
PHRM9900
Pharmacy Capstone I
PHRM9901
Pharmacy Capstone II

B.S. in Biology/Doctor of Chiropractic

Six-year, Four-month Program

This accelerated, combined degree program enables students to earn both baccalaureate and Doctor of Chiropractic degrees in just six years and four months — a full year less than the normal study time of seven years and four months. Students can choose to attend undergraduate classes on either of Fairleigh Dickinson University's New Jersey campuses.

The bachelor's degree is awarded by the University and the Doctor of Chiropractic degree is awarded by a participating Council on Chiropractic Education (CCE)-accredited Colleges of Chiropractic. To date, the University has affiliations with New York Chiropractic College, Seneca Falls, N.Y.; Life Chiropractic College West, Hayward, Calif.; Logan University, Chesterfield, Mo.; Palmer College of Chiropractic, Davenport, Iowa; and University of Western States, Portland, Ore.

Students are admitted into FDU's combined degree program as incoming freshmen or qualified transfer students. The B.S. degree is awarded after the students completes six semesters (three years) at FDU (including the courses listed on the next pages or their approved equivalent), completes the first two trimesters of study at a participating chiropractic college with grades of C or better and is accepted into the third trimester. Up to 32 credits accepted in transfer toward completion of B.S. degree requirements will be selected from appropriate graduate-level courses offered by a participating chiropractic college.

Specific Course Requirements Metropolitan Campus

Under the provisions of the prechiropractic program on the Metropolitan Campus, Teaneck, New Jersey, students matriculate in the School of Natural Sciences, University College: Arts • Sciences • Professional Studies for a minimum of 99 credits of course work leading to the B.S. in biology (preprofessional degree option), including the following courses:

Liberal Arts and Humanities	
Requirements	Credits
CSCI1105	
Survey of Computers and	
Computer Software	3
ENGL2201	
Masterpieces of World Literature	I 3

B.S. in Biology/Doctor of Chiropractic

Credits	Credits	Florham Campus
ENGL2202	CHEM2263	Under the provisions of the prechiroprac-
Masterpieces of World Literature II3	Organic Chemistry Laboratory I2	tic program at the Florham Campus, Madi-
ENWR1001	Mathematics Sequence4	son, New Jersey, students matriculate in
Composition I: Rhetoric and Inquiry 3	Humanities Course*3	the department of biological and allied
ENWR1002	Total16	health sciences, Maxwell Becton College
Composition II: Research and	4th Semester	of Arts and Sciences, for a minimum of 97
Argument3	BIOL2210, BIOL2211	credits of course work leading to the B.S.
UNIV1001	Genetics (Lecture and Laboratory)4	in biology (preprofessional degree option),
Transitioning to University Life1	BIOL2300	including the following courses:
UNIV1002	Experimental Design3	merading the following courses.
Preparing for Professional Life1	CHEM2262	Biology Requirements Credits
UNIV2001	Organic Chemistry II3	
Cross-cultural Perspectives3	CHEM2264	BIOL1201, BIOL1203
UNIV2002	Organic Chemistry Laboratory II2	Biological Diversity
Global Issues3	UNIV2002	(Lecture and Laboratory) 4
Fine Arts Elective2	Global Issues3	BIOL1202, BIOL1204
Humanities Electives6	Humanities Course**3	Introduction to Molecules, Cells
Total36	Total18	and Genes (Lecture and
Recommended Course Sequence	5th Semester	Laboratory)4
1st Semester	BIOL2237, BIOL2239	BIOL2003, BIOL2004
BIOL1251	Human Structure and Function	Cell Biology (Lecture and Laboratory)4
General Biology I3	(Lecture and Laboratory) 4	BIOL3253, BIOL3254
BIOL1253	BIOL3225, BIOL3226	Comparative Anatomy
Laboratory: General Biology L1	General Microbiology	(Lecture and Laboratory) 4
CHEM1201	(Lecture and Laboratory) 4	BIOL3256, BIOL3257
General Chemistry I	BIOL4900	Genetics (Lecture and Laboratory)4
CHEM1203	Biology Seminar L 1	
General Chemistry Laboratory I1	PHYS2201	BIOL3337, BIOL3327
ENWR1001	Physics Laboratory I 1	General Physiology
Composition I: Rhetoric and Inquiry 3	PHYS2203	(Lecture and Laboratory)4
UNIV1001	University Physics I3	
Transitioning to University Life1	UNIV2001	Cognate Requirements
Total12	Cross-cultural Perspectives3	(Chemistry, Mathematics, Physics)
2nd Semester	Total16	CHEM1201, CHEM1202
BIOL1252	6th Semester	General Chemistry I, II6
General Biology II3	BIOL4240, BIOL4241	CHEM1203, CHEM1204
BIOL1254	Molecular Cell Biology	General Chemistry Laboratory I, II2
Laboratory: General Biology II1	(Lecture and Laboratory)4	CHEM2261, CHEM2262
CHEM1202	BIOL4405	Organic Chemistry I, II
General Chemistry II3	Ethics in Science3	CHEM2263, CHEM2264
CHEM1204	CHEM3281	Organic Chemistry Laboratory I, II2
General Chemistry Laboratory II1	Biochemistry I	MATH1107
ENWR1002	PHYS2202	Precalculus4
Composition II: Research and	Physics Laboratory II1	MATH1203
Argument3	PHYS2204	Calculus I4
UNIV1002	University Physics II3	
Preparing for Professional Life1	Oral Communication Elective 3	Students must complete the general
Mathematics Sequence 4	Total17	education course plan (see pages
Total16		54–55) as well, including these specific
3rd Semester	*Take 3 credits from ENGL (except developmental	classes:
BIOL2150, BIOL2250	English), HIST, HUMN, LANG, PHIL or RELI courses.	PHIL1440
Ecology and Field Biology	Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108	Biomedical Ethics
(Lecture and Laboratory)	Development of Art II, ART1120 Modern Art to Mid-	SPCH1107
or	century, ART1131 History of Graphic Design and	Fundamentals of Speech
MBIO1209, MBIO1219	Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136	or
Introduction to Marine Biology	Cinema II: Themes in Films, ART1137 History of	COMM2099
(Lecture and Laboratory) 4	Fashion Design, ART2137 Global Roots of American	Professional Communications3
CHEM2261	Architecture or ART2238 The Global Art World. **Take 3 credits from ENGL, HIST, HUMN, LANG,	
Ouronia Chamiatur I 7	DUIL or PELL courses at the 2000 level or above	

B.S. in Biochemistry or Biology or Chemistry/Doctor of Dental Medicine

B.S. in Biochemistry or Biology or Chemistry/Doctor of Dental Medicine Eight-year Program

(with Lake Erie College of Osteopathic Medicine, School of Dental Medicine)

Lake Erie College of Osteopathic Medicine, School of Dental Medicine offers the D.M.D. degree through a full-time, four-year pathway at its campus in Bradenton, Fla. The curriculum consists of two years of basic science and preclinical instruction delivered through case-based, small-group problem-based learning sessions, as well as lectures, laboratories and introductory clinical experiences. Years three and four offer primarily hands-on, clinical experiences (http://lecom.edu/school-dental-medicine).

These combined degree programs provide qualified students the opportunity to complete a baccalaureate degree and a Doctor of Dental Medicine (D.M.D.) degree in eight years. The bachelor's degree (B.S. in biology/biochemistry/chemistry) is awarded by Fairleigh Dickinson University and the doctoral degree (D.M.D.) by Lake Erie College of Osteopathic Medicine (LECOM) - School of Dental Medicine. Through these Early Acceptance Programs, FDU undergraduate students are enrolled jointly by Fairleigh Dickinson University and by LECOM. Once recommended by Fairleigh Dickinson University, LECOM will interview the students prior to their enrollment at Fairleigh Dickinson University or within the first two years of being properly enrolled in the program. Students interviewing successfully will be offered a provisional acceptance to LECOM's Doctor of Dental Medicine program.

The "4+4" track is comprised of two phases. Phase I consists of four years of undergraduate education at Fairleigh Dickinson University and completion of the B.S. in biochemistry, biology or chemistry degree. Phase II consists of four years of dental school education at LECOM and its associated clinical training sites. Upon meeting the criteria for final acceptance, students will matriculate at the LECOM Bradenton, Fla., campus.

Each academic year, a maximum combined total of five students will be accepted by LECOM into Phase II of the Early Acceptance Program from each campus of Fairleigh Dickinson University. Provisionally accepted students may not apply

to any other medical school. Application to another medical school will result in the loss of the student's provisional acceptance.

Admission to the Combined Degree Programs

High school seniors with a combined SAT score of 1170 (ACT score of 26) and a grade point average (GPA) of 3.50 or better may apply for admission to the combined degree programs. All applicants for admission to the combined degree programs must satisfy secondary-school preparation in English, mathematics, biology, chemistry and physics. The high school GPA and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating the applicant's credentials. Applicants are required to submit scores in the verbal and the mathematical components of SAT.

Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the preprofessional curriculum in one of the sciences (biology, biochemistry or chemistry). They are expected to maintain a minimum cumulative grade point ratio of 3.00 or higher in all course work and in science courses.

Qualifying for Enrollment at LECOM School of Dental Medicine

Qualified students enrolled in the combined degree programs will be accepted into Phase II if they meet the following criteria:

- Completion of all FDU curriculum requirements, including including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission to LECOM School of Dental Medicine. Students need to maintain a cumulative grade point ratio (CGPR) of 3.40 or higher in prerequisite courses with no grade lower than C in any of them and a cumulative overall science GPR of 3.20;
 - A GPR of 3.40 or higher;
- An academic index score my be factored into admission decision.
- No reduced course load will be accepted. No summer courses will be accepted except in the case of scheduling conflicts;

- Submission of a satisfactory Dental Admission Test (DAT) score (established by LECOM at the time of entry into the Early Acceptance Program) in a timely fashion; and
- Full-time students currently enrolled at FDU who seek admission to the combined degree programs must apply to the School of Natural Sciences, University College: Arts Sciences Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Florham Campus, Madison, N.J., prior to February 1 of their sophomore year.

Predental Curricula

Students enrolled in the 4+4 years Early Acceptance Program will follow FDU's curricula for B.S. in sciences (for biochemistry, see pages 66 and 141; for biology, see pages 68 and 142; or for chemistry, see pages 69 and 146).

Under the provisions of the predental combined program, students matriculate in either University College: Arts • Sciences • Professional Studies or Maxwell Becton College of Arts and Sciences for a minimum of 96 credits of course work leading to the B.S. in one of the sciences (biochemistry, biology, chemistry).

B.S. in Biology/Doctor of Pharmacy

B.S. in Biology/Doctor of Dental Medicine Seven-year Program

(with Rutgers School of Dental Medicine)
Students accepted into this program will spend their first three years at FDU. The following four years will be spent at the Rutgers School of Dental Medicine (RSDM). Following successful completion of the first year of study at RSDM the student will be awarded a B.S. degree by FDU.

Admission to the Program

Qualified students who have completed their first three semesters of study achieving a 3.50 cumulative grade point ratio at FDU may apply. Applicants must have had secondary school preparation in English, mathematics, biology, chemistry and physics. Letters of recommendation from high school teachers also are required.

Following evaluation of applications by the admissions office, the Joint Admissions Committee will decide which applicants to interview at FDU and RSDM. The interview at RSDM will be conducted by a member of the RSDM Admissions Committee. The final decision will be made by the Joint Admissions Committee following a review of the interviewers' comments.

Final Admission to RSDM

Final admission into the Rutgers School of Dental Medicine is dependent on satisfactory completion of the following:

- 1. 98 credits as listed on this page and page 253 at University College: Arts Sciences Professional Studies or 98 credits as listed on this page at the Maxwell Becton College of Arts and Sciences.
- 2. A minimum grade point ratio of 3.50 and a minimum grade of B in each of the science courses required for admission to RSDM. There shall be no final grade of "D", "F" or "I" in any course required for admission to RSDM, appearing on the student's transcript.
- 3. A satisfactory score on the Dental Aptitude Test must be submitted prior to admission to RSDM.
- 4. A recommendation by four faculty members, including the chair of the department of biological and allied health sciences at the Florham Campus, Madison, New Jersey, or the director of the School of Natural Sciences at the Metropolitan

Campus, Teaneck, New Jersey, and the preprofessional adviser is required. FDU students wishing to participate in the program must apply in writing to the preprofessional adviser no later than completion of 60 credits at FDU.

- 5. Participation in any orientation programs required by RSDM.
- 6. Final entrance into the D.M.D. program is contingent on satisfactory performance in all six semesters at FDU, not withstanding any prior offer of admission.
- 7. Further information can be obtained from the Advisement Office for Graduate and Professional Studies at the Florham Campus, Madison, New Jersey, or the Graduate School and Professional Studies Advisement Center at the Metropolitan Campus, Teaneck, New Jersey.

Specific Course Requirements

The course requirements to be followed at Maxwell Becton College of Arts and Sciences at the Florham Campus, Madison, New Jersey, or University College: Arts • Sciences • Professional Studies at the Metropolitan Campus, Teaneck, New Jersey, are found on this and the following page.

Florham Campus **Biology Requirements** Credits BIOL1201, BIOL1203 **Biological Diversity** (Lecture and Laboratory)...... 4 BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory)......4 BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory)...4 BIOL3253, BIOL3254 Comparative Anatomy (Lecture and Laboratory)...... 4 BIOL3256, BIOL3257 Genetics (Lecture and Laboratory)......4 BIOL3337, BIOL3327 General Physiology (Lecture and Laboratory)...... 4 Cognate Requirements (Chemistry, Mathematics, Physics) CHEM1201, CHEM1202

General Chemistry I, II......6

General Chemistry Laboratory I, II......2

CHEM1203, CHEM1204

Credits
CHEM2261, CHEM2262
Organic Chemistry I, II
CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II2
CHEM3281, CHEM3389
Biochemistry I (Lecture and
Laboratory) ²
MATH1107
Precalculus
MATH1133
Applied Statistics
MATH1203 Calculus I
Students must complete the general education course plan (see pages
54-55) as well, including these specific
classes:
PHIL1440
Biomedical Ethics
SPCH1107
Fundamentals of Speech or
COMM2099
Professional Communications
Matura ditan Campus
Metropolitan Campus
1st Semester BIOL1251, BIOL1253
General Biology I
(Lecture and Laboratory) 4
CHEM1201
General Chemistry I
CHEM1203
General Chemistry Laboratory I 1
ENWR1001
Composition I: Rhetoric and Inquiry3 UNIV1001
Transitioning to University Life
Total12
2nd Semester
BIOL1252, BIOL1254
General Biology II
(Lecture and Laboratory)4
CHEM1202
General Chemistry II
CHEM1204
General Chemistry Laboratory II1
ENWR1002 Composition II: Research and
Argument3
UNIV1002
Preparing for Professional Life
Mathematics Sequence
Total16

B.S. in Biology/Medical Doctor

3rd Semester Credits
BIOL2250, BIOL2150
Ecology and Field Biology
(Lecture and Laboratory) 4
CHEM2261
Organic Chemistry I
CHEM2263
Organic Chemistry Laboratory I2
Mathematics Sequence4
Humanities Course*
Total16
4th Semester
BIOL2210, BIOL2211
Genetics (Lecture and Laboratory)4
BIOL2300
Experimental Design
CHEM2262
Organic Chemistry II
CHEM2264
Organic Chemistry Laboratory II2
UNIV2002
Global Issues3
Humanities Course**
Total18
5th Semester
BIOL2237, BIOL2239
Human Structure and Function
(Lecture and Laboratory) 4
BIOL3225, BIOL3226
General Microbiology
(Lecture and Laboratory) 4
BIOL4900
Biology Seminar I 1
PHYS2201
Physics Laboratory I1
PHYS2203
University Physics I
UNIV2001
Cross-cultural Perspectives3
Total16

6th Semester	Credits
BIOL4240, BIOL4241	
Molecular Cell Biology	
(Lecture and Laboratory)	4
BIOL4405	
Ethics in Science	3
CHEM3281	
Biochemistry I	3
PHYS2202	
Physics Laboratory II	1
PHYS2204	
University Physics II	3
Oral Communication Elective	3
To	otal17
Consult pages 143-144 for additional consult pag	onal
dataila alacut tha manuimana anta fam	Alaa D C

Consult pages 143–144 for additional details about the requirements for the B.S. in biology at the Metropolitan Campus, Teaneck, New Jersey.

*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.
**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

B.S. in Biology/Medical Doctor Eight-year Program

(with Ross University School of Medicine, Portsmouth, Dominica, West Indies)

This accelerated, combined degree program provides qualified students the opportunity to complete a baccalaureate degree (B.S. in biology) and a Medical Doctor (M.D.) degree in eight years. The bachelor's degree is awarded by Fairleigh Dickinson University and the doctoral degree (M.D.) by Ross University. English is the teaching language.

Students are admitted to FDU as incoming freshmen or qualified transfer students. They may apply for the Bachelor of Science degree upon successful completion of six semesters at FDU, including the courses listed below, and the first year of study (three semesters) at Ross University. A maximum of 32 credits from Ross University may be transferred toward completion of the B.S. degree at FDU.

Admission to the Combined Degree Program

High school seniors with a combined SAT score of 1150 or higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a 3.40 cumulative grade point ratio or higher may apply for admission to the combined degree program. Applicants must have had secondary-school preparation in English, mathematics, biology, chemistry and physics. Letters of recommendation from high school teachers also are required.

The high school grade point average (GPA) and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating applicants' credentials. Applicants are required to submit scores in the verbal and mathematical components of the SAT.

After preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited for an interview with the FDU/Ross University Joint Admissions Committee.

Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology and are

B.S. in Biology/Medical Doctor

expected to maintain a minimum cumulative grade point ratio of 3.25 or higher in all course work and a minimum of 3.00 in prerequisite courses required by Ross University.

Qualifying for Enrollment at Ross University

To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at Ross University. Students need to maintain a grade point ratio (GPR) of 3.00 or higher in prerequisite courses with no D or F in any of the courses:
 - A GPR of 3.25 or higher;
- Submission of a satisfactory MCAT score (24 or higher) in a timely fashion;
- Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts Sciences Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at Ross University; and
- Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering Ross University must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at Ross University.

Premedical Curricula

Under the provisions of the premedical program, students matriculate in either University College: Arts • Sciences • Professional Studies, Metropolitan Campus, or Maxwell Becton College of Arts and Sciences, Florham Campus, for a minimum of 96 credits (University College) 97 credits (Becton College) of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

Metropolitan Campus
1st Semester Credits
BIOL1251
General Biology I
BIOL1253 Laboratory: General Biology I1
CHEM1201
General Chemistry I3
CHEM1203
General Chemistry Laboratory I 1
ENWR1001
Composition I: Rhetoric and Inquiry3 UNIV1001
Transitioning to University Life
2nd Semester
BIOL1252
General Biology II3
BIOL1254
Laboratory: General Biology II1 CHEM1202
General Chemistry II3
CHEM1204
General Chemistry Laboratory II1
ENWR1002
Composition II: Research and Argument
UNIV1002
Preparing for Professional Life
Mathematics Sequence4
Total16
3rd Semester
BIOL2150, BIOL2250
Ecology and Field Biology
(Lecture and Laboratory)
or MBIO1209, MBIO1219
Introduction to Marine Biology
(Lecture and Laboratory)4
CHEM2261
Organic Chemistry I
CHEM2263
Organic Chemistry Laboratory I2 Mathematics Sequence4
Humanities Course*
Total16

*Take 3 credits from ENGL (except developmental
English), HIST, HUMN, LANG, PHIL or RELI
courses. Or take ART1103 Principles of Art
Appreciation, ART1107 Development of Art I,
ART1108 Development of Art II, ART1120 Modern Art
to Mid-century, ART1131 History of Graphic Design
and Illustration, ART1133 History of Photography,
ART1135 Cinema I: The Director's Vision, ART1136
Cinema II: Themes in Films, ART1137 History of
Fashion Design, ART2137 Global Roots of American
Architecture or ART2238 The Global Art World

4th Semester Credits
BIOL2210, BIOL2211
Genetics (Lecture and Laboratory)4
BIOL2300
Experimental Design3
CHEM2262
Organic Chemistry II3
CHEM2264
Organic Chemistry Laboratory II2
UNIV2002
Global Issues3
Humanities Course*3
Total18
54. O
5th Semester
BIOL2237, BIOL2239
Human Structure and Function
(Lecture and Laboratory) 4
BIOL3225, BIOL3226
General Microbiology
(Lecture and Laboratory) 4
BIOL4900
Biology Seminar I1
PHYS2201
Physics Laboratory I1
PHYS2203
University Physics I3
UNIV2001
Cross-cultural Perspectives3
Total16
6th Semester
BIOL4240, BIOL4241
Molecular Cell Biology
(Lecture and Laboratory)4
BIOL4405
Ethics in Science3
CHEM3281
Biochemistry I3
PHYS2202
Physics Laboratory II1
PHYS2204
University Physics II3
Oral Communication Elective 3
Total17

*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

B.S. in Biology/Medical Doctor B.S. in Biology/Doctor of Osteopathic Medicine B.S. in Biochemistry or Biology or Chemistry/Doctor of Osteopathic Medicine

Florham Campus

Biology Requirements	Credits
BIOL1201, BIOL1203	
Biological Diversity	
(Lecture and Laboratory)	4
BIOL1202, BIOL1204	
Introduction to Molecules, Cells	
and Genes (Lecture and	
Laboratory)	4
	4
BIOL2003, BIOL2004	
Cell Biology (Lecture and Labora	tory)4
BIOL3253, BIOL3254	
Comparative Anatomy	
(Lecture and Laboratory)	4
BIOL3256, BIOL3257	
Genetics (Lecture and Laboratory	z)4
BIOL3337, BIOL3327	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
General Physiology	
(Lecture and Laboratory)	1
(Lecture and Laboratory)	+
On many to Branch to the same to	
Cognate Requirements	1
(Chemistry, Mathematics, Physic	:S)
CHEM1201, CHEM1202	
General Chemistry I, II	6
CHEM1203, CHEM1204	
General Chemistry Laboratory I,	112
CHEM2261, CHEM2262	
Organic Chemistry I, II	6
CHEM2263, CHEM2264	
Organic Chemistry Laboratory I,	112
CHEM3281	_
Biochemistry I	3
MATH1107	
Precalculus	4
MATH1133	
Applied Statistics	3
MATH1203	
Calculus I	4
Students must complete the ger	
education course plan (see page	S
54–55) as well, including these s	pecific
classes:	
PHIL1440	
Biomedical Ethics	3
SPCH1107	
Fundamentals of Speech	
or	
COMM2009	
Professional Communications	3

B.S. in Biology/Medical **Doctor**

Seven-year Program (with Universidad Autónoma de

Guadalajara School of Medicine, Mexico) The program is based on the U.S. model. Students who complete the program are eligible to practice medicine in all 50 states. Universidad Autónoma de Guadalajara School of Medicine is approved by the U.S. Department of Education as an eligible institution to participate in the Stafford Plus and Supplemental Student Loan Programs. While Spanish is not required for applicants, one-year, college-level Spanish is recommended. There is a rolling admissions policy and two entering classes per year (August and January). Residencies in all 50 states. (http://www.uag.edu/medicine or http://www.uag.mx).

B.S. in Biology/Doctor of Osteopathic Medicine Seven-year Program

B.S. in Biochemistry or Biology or Chemistry/Doctor of Osteopathic Medicine Eight-year Program

(with Lake Erie College of Osteopathic Medicine)

These combined degree programs provide qualified students the opportunity to complete a baccalaureate degree and a Doctor of Osteopathic Medicine (D.O.) degree in seven (accelerated) or eight years. The bachelor's degrees are awarded by Fairleigh Dickinson University and the doctoral degree (D.O.) by Lake Erie College of Osteopathic Medicine (LECOM). Through these Early Acceptance Programs, Fairleigh Dickinson University undergraduate students are enrolled jointly by FDU and by LECOM. Once recommended by FDU, LECOM will interview the students prior to their enrollment at Fairleigh Dickinson University or within the first two years of being properly enrolled in the program. Students interviewing successfully will be offered a provisional acceptance to LECOM's Doctor of Osteopathic Medicine program.

The "4+4" track is comprised of two phases. Phase I consists of four years of undergraduate education at Fairleigh Dickinson University and completion of the B.S. in biochemistry or biology or chemistry degree. Phase II consists of four years (three years for the Primary Care Scholars Pathway) of medical school education at LECOM and its associated clinical training sites.

The "3+4" track is comprised of two phases. Phase I consists of three years of undergraduate education at FDU. Phase II consists of four years (three years for the Primary Care Scholars Pathway) of medical school education at LECOM and its associated clinical training sites. Students enrolled in this track will receive a B.S. in biology from FDU upon completion of at least 32 credit hours at LECOM. Each academic year, a maximum combined total of five students will be accepted by LECOM into Phase II of the Early Acceptance Program from each New Jersey campus of FDU. Provisionally accepted students may not apply to any other medical school. Application to

B.S. in Biochemistry or Biology or Chemistry/Doctor of Osteopathic Medicine

another medical school will result in the loss of the student's provisional acceptance.

Admission to Phase I of the Combined Degree Programs

High school seniors with a combined SAT score of 1170 (ACT score of 26) and a grade point average (GPA) of 3.50 or better may apply for admission to the combined degree program. All applicants for admission to the combined degree program must satisfy secondary-school preparation in English, mathematics, biology chemistry and physics. The high school GPA and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating applicant's credentials. Applicants are required to submit scores in the verbal and the mathematical components of the SAT.

Medical 3+4 Phase I Admissions Criteria:

SAT (mathematics and verbal) or ACT score: 1280 (SAT) or 29 (ACT)

High school unweighted GPA: 3.80

Medical 4+4 Phase I Admissions Criteria:

SAT (mathematics and verbal) or ACT score: 1170 (SAT) or 26 (ACT)

High school unweighted GPA: 3.50

Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology (for the 3+4 track) and a curriculum in biology, biochemistry or chemistry for the 4+4 track. They are expected to maintain a minimum cumulative grade point ratio (GPR) of 3.40 or higher in all course work and a minimum GPR of 3.20 in science courses.

Qualifying for Enrollment of Phase II at Lake Erie College of Osteopathic Medicine

Qualified students enrolled in the combined degree programs will be accepted into Phase II of the program if they meet the following criteria:

• Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at LECOM. Students need to maintain a

GPR of 3.20 or higher in prerequisite courses with no grade lower. than C in any of them:

- No reduced course load will be accepted. No summer courses will be accepted except in the case of scheduling conflicts:
- Submission of a satisfactory MCAT score (established by LECOM at the time of entry into the Early Acceptance Program) in a timely fashion;
- Full-time students currently enrolled at FDU who seek admission to the combined degree programs must apply to the School of Natural Sciences, University College: Arts Sciences Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, N.J., prior to February 1 of their freshman year for the 3+4 Early Acceptance Program, or by February 1 of their sophomore year for the 4+4 program; and
- Students in the "3+4" track may switch to the "4+4" track by notifying FDU's Pre-Health Professions Advisory Committee no later than December 1 of their third year of enrollment in the program.

Medical 3+4 Phase II Admissions Criteria:

Cumulative overall GPR: 3.50 or higher Cumulative science GPR: 3.20 or igher

Academic Index Score: 125 MCAT*: 25 (at least 7 in each subcategory)

Medical 4+4 Phase II Admissions Criteria:

Cumulative overall GPR: 3.40 Cumulative science GPR: 3.20 Academic Index Score: 115

MCAT*: 25 (at least 7 in each subcategory)

Premedical Curricula

Students enrolled in the 4+4 years Early Acceptance Program will follow the curricula for the B.S. in biology (see pages 68 and 142), B.S. in biochemistry (see pages 66 and 141) or B.S. in chemistry (see pages 69 and 146).

*Students matriculating to LECOM in 2016 and later will be exempt from the MCAT requirement, provided that the minimum Academic Index Score requirement has been met and that the student has earned a grade of "C" or better in biochemistry and genetics.

Under the provisions of the pre-osteopathic medicine accelerated program (3+4 years), students matriculate in either University College: Arts • Sciences • Professional Studies or Maxwell Becton College of Arts and Sciences for a minimum of 95 credits of course work leading to the B.S. in biology (preprofessional option). The curricula are as follows:

Metropolitan Campus Phase I (3+4 Track)

1st Semester	Credits
BIOL1251, BIOL1253 General Biology I (Lecture and	
Laboratory)	4
CHEM1201	-
General Chemistry I CHEM1203	3
General Chemistry Laboratory I.	1
ENWR1001	
Composition I: Rhetoric and Inqu	ıiry 3
UNIV1001 Transitioning to University Life	1
	al12
2nd Semester	
BIOL1252, BIOL1254 General Biology II	
(Lecture and Laboratory)	1
CHEM1202	т
General Chemistry II	3
CHEM1204	
General Chemistry Laboratory II.	1
ENWR1002	
Composition II: Research and Argument	7
UNIV1002	3
Preparing for Professional Life	1
Mathematics Sequence	
Tot	al16
3rd Semester	
BIOL2150, BIOL2250	
Ecology and Field Biology	
(Lecture and Laboratory)	
or MBIO1209, MBIO1219	
Introduction to Marine Biology	
(Lecture and Laboratory)	4
CHEM2261	
Organic Chemistry I	3

B.S. in Biology/Doctor of Pharmacy

Credits
CHEM2263
Organic Chemistry Laboratory I2
Mathematics Sequence
Total16
10ta110
4th Semester
BIOL2210, BIOL2211
Genetics (Lecture and Laboratory)4 BIOL2300
Experimental Design3
CHEM2262
Organic Chemistry II
Organic Chemistry Laboratory II 2 UNIV2002
Global Issues
Humanities Course**
Total18
5th Semester
BIOL2237, BIOL2239
Human Structure and Function4
BIOL3225, BIOL3226 General Microbiology (Lecture
and Laboratory)4
BIOL4900
Biology Seminar I1
PHYS2201
Physics Laboratory I1
PHYS2203
University Physics I
UNIV2001
Cross-cultural Perspectives3 Total16
10ta110
6th Semester
BIOL4240, BIOL4241
Molecular Cell Biology
(Lecture and Laboratory)4
BIOL4405
Ethics in Science
CHEM3281
Biochemistry I
Physics Laboratory II1
PHYS2204 University Physics II3
Oral Communication Elective
Total17
*Take 3 credits from ENGL (except developmental

English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World. *Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

Florham Campus (3+4 Track) Biology Requirements Credits
BIOL1201, BIOL1203
Biological Diversity
(Lecture and Laboratory) 4
BIOL1202, BIOL1204
Introduction to Molecules, Cells
and Genes (Lecture and
Laboratory)4
BIOL2003, BIOL2004
Cell Biology (Lecture and Laboratory)4
BIOL3253, BIOL3254
Comparative Anatomy
(Lecture and Laboratory) 4
BIOL3256, BIOL3257
Genetics (Lecture and Laboratory)4
BIOL3337, BIOL3327
General Physiology
(Lecture and Laboratory) 4
•

Cognate Requirements (Chemistry, Mathematics, Physics) CHEM1201, CHEM1202 CHEM1203, CHEM1204 General Chemistry Laboratory I, II......2 CHEM2261, CHEM2262 Organic Chemistry I, II.....6 CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II......2 MATH1107 Precalculus.....4 MATH1133 Applied Statistics......3 MATH1203 Calculus I.....4

education course plan (see pages 54-55) as well, including these specific classes: PHIL1440 Biomedical Ethics......3 SPCH1107

Students must complete the general

Fundamentals of Speech COMM2099

Professional Communications......3

Two social and behavioral science classes

From either psychology, sociology or anthropology. Each class should be in a different discipline.

B.S. in Biology/Doctor of **Pharmacy** Seven-year Program

(with FDU School of Pharmacy and Health Sciences, Fairleigh Dickinson University)

Fairleigh Dickinson University sophomores and high school seniors can apply to the the B.S. in biology plus Pharm.D. combined program (3+4) offered by the School of Pharmacy and Health Sciences.

Sophomore applicants studying biology, and maintaining a 3.30 grade point ratio must also have a grade of B- or better in all prerequisite college courses. The program is even more competitive for high school students seeking admission: students must have an SAT score of 1150 or higher (on the 1600 scale) and a 3.50 grade point average.

The program is structured so that students complete three years of undergraduate work in a "feeder" science major through the Maxwell Becton College of Arts and Sciences or University College: Arts • Sciences • Professional Studies before transitioning to the School of Pharmacy and Health Sciences to begin four years of graduate work. They ultimately achieve both a Bachelor of Science and Doctor of Pharmacy.

Metropolitan Campus

A minimum of 120 credits for the B.S. degree; 100-104 of these are taken at the Metropolitan Campus in years 1-3 + 28credits (to be approved by the department chair/director) in year 4 at FDU's School of Pharmacy and Health Sciences. Students not accepted into FDU's School of Pharmacy and Health Sciences have the option of switching out of the B.S. in biology/Pharm.D. combined degree and into another concentration.

B.S. in Biology and Doctor of **Pharmacy Combined Degree**

1st Semester	Credits
BIOL1251	
General Biology I	3
BIOL1253	
Laboratory: General Biology I	1
CHEM1201	
General Chemistry I	3
CHEM1203	
General Chemistry Laboratory I	1
ENWR1001	
Composition I: Rhetoric and Inqu	ıiry 3

B.S. in Biology/Doctor of Pharmacy

Credits	4th Semester Credits	7th Semester Credits
MATH2337	BIOL2210, BIOL2211	PHRM6100
Applied Statistics I	Genetics (Lecture and Laboratory)4 CHEM2262	Foundations in Pharmaceutical
Transitioning to University Life 1	Organic Chemistry II3	Science: Pharmacology, Medicinal Chemistry,
Total15	CHEM2264	Pharmacokinetics4
10ta113	Organic Chemistry Laboratory II2	PHRM6101
2nd Semester	UNIV2001	Foundations in Integrated
BIOL1252	Cross-cultural Perspectives3	Pharmacotherapy I: An
General Biology II3	Humanities Course*3	Introduction to Pathophysiology,
BIOL1254	Total15	Genetics, Microbiology and
Laboratory: General Biology II1		Delivery of Care3
CHEM1202	5th Semester Credits	PHRM6201
General Chemistry II3	BIOL2237, BIOL2239	Pharmaceutics I: Physical Pharmacy3
CHEM1204	Human Structure and Function I	PHRM6211
General Chemistry Laboratory II1	(Lecture and Laboratory) 4	Pharmaceutical Calculations I1
ENWR1002	BIOL3225, BIOL3226	PHRM6301
Composition II: Research and	General Microbiology	Medical Communication and
Argument 3	(Lecture and Laboratory) 4	Technical Writing2
MATH	BIOL4900	PHRM6321
Mathematics Sequence*4	Biology Seminar I1	Pharmacy Practice Law2
UNIV1002	PHYS2201	PHRM6401
Preparing for Professional Life1	Physics Laboratory I1	Professional Pharmacy Practice I:
Total16	PHYS2203	Health Care Delivery3
	University Physics I3	DUDA (700
3rd Semester	UNIV2002	PHRM6700
BIOL2150, BIOL2250	Global Issues	Beyond the Curriculum: Foundations in Pharmacy
Ecology and Field Biology	Total16	Education0
(Lecture and Laboratory)	Cul. Commenter	Total18
0r	6th Semester	10ta110
MBIO1209, MBIO1219	BIOL3357, BIOL3358 Human Structure and Function II	8th Semester
Introduction to Marine Biology (Lecture and Laboratory)4	(Lecture and Laboratory)4	PHRM6102
CHEM2261	BIOL4240, BIOL4241	Integrated Pharmacotherapy II:
Organic Chemistry I3	Molecular Cell Biology	Gastrointestinal
CHEM2263	(Lecture and Laboratory) 4	PHRM6103
Organic Chemistry Laboratory I2	CHEM3281	Integrated Pharmacotherapy III:
MATH	Biochemistry I3	Dermatology, Over-the-Counter
Mathematics Sequence*4	PHYS2202	Remedies and Self Care3
Humanities Course**	Physics Laboratory II1	PHRM6104
Total16	PHYS2204	Integrated Pharmacotherapy IV:
	University Physics II3	Cardiology/Pulmonary I
	SPCH	PHRM6111
	Oral Communication Elective** 3	Integrated Pharmacotherapy II-IV:
	Total18	Conceptual Connections and
		Patient Care2
		PHRM6202
		Pharmaceutics II – Oral Dosage
		Forms and Biopharmaceutics/
		Pharmacokinetics2
*Students are required to include in the first year at		PHRM6402
least one semester of Calculus. **Take 3 credits from ENGL (except developmental		Professional Pharmacy Practice II:
English), HIST, HUMN, LANG, PHIL or RELI		Communication in Health Care2
courses. Or take ART1103 Principles of Art		PHRM6701
Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art		Beyond the Curriculum:
to Mid-century, ART1131 History of Graphic Design		Foundations in Pharmacy
and Illustration, ART1133 History of Photography,		Education (2)1
ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of	*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.	Total17
Fashion Design, ART2137 Global Roots of American	**Requirements consist of a three-credit Speech	
Architecture or ART2238 The Global Art World.	course.	

B.S. in Biology/Doctor of Pharmacy

School of Pharmacy and Health	Credits	Credits
Sciences Courses for All	PHRM8110	PHRM9207
Undergraduate Majors	Integrated Pharmacotherapy X:	Advanced Pharmacy Practice
Years 5 through 7	Hematology and Oncology3	Experience (APPE) V: Elective –
Credits	PHRM8111	Medication Therapy
PHRM6501	Integrated Pharmacotherapy IX–X:	Management I5
Introductory Pharmacy Practice	Conceptual Connections and	PHRM9209
Experience (IPPE) I:	Patient Care2	Advanced Pharmacy Practice
Community4	PHRM8112	Experience (APPE) V: Elective –
PHRM7105	Integrated Pharmacotherapy I–X:	HIV/AIDS I 5
Integrated Pharmacotherapy V:	A Whole System Overview and	PHRM9211
Neurology, Psychiatry and	Effecting Patient Care	Advanced Pharmacy Practice
Anesthesiology4	PHRM8201	Experience (APPE) V: Elective –
PHRM7106	Pharmacogenomics and	Home Infusion I5 PHRM9301
Integrated Pharmacotherapy VI:	Personalized Medicine	
Infectious Disease4	Pharmacoepidemiology,	Advanced Pharmacy Practice Experience (APPE) VI: Elective –
PHRM7107	Pharmacoeconomics and	Hospital Practice I5
Integrated Pharmacotherapy VII:	Health Outcomes3	PHRM9303
Cardiology/Pulmonary II4	PHRM8302	Advanced Pharmacy Practice
PHRM7108	Public Health and the Global	Experience (APPE) VI: Elective –
Integrated Pharmacotherapy VIII:	Mission of Pharmacy2	Acute Care I5
Endocrine, Urinary Tract,	PHRM8321	PHRM9305
Renal and Reproductive Health4	Health Care Ethics and Team	Advanced Pharmacy Practice
PHRM7111	Decision Making1	Experience (APPE) VI: Elective –
Integrated Pharmacotherapy V-VI:	PHRM8402	Long Term Care I5
Conceptual Connections and	Professional Pharmacy Practice IV:	PHRM9307
Patient Care2	Pharmacy Leadership and	Advanced Pharmacy Practice
PHRM7112	Management2	Experience (APPE) VI: Elective –
Integrated Pharmacotherapy	PHRM8700	Infectious Disease I5
VII-VIII: Conceptual	Beyond the Curriculum/	PHRM9309
Connections and Patient Care2	Preparing Practitioners (1)0	Advanced Pharmacy Practice
PHRM7201	PHRM8701	Experience (APPE) VI: Elective –
Pharmaceutics III: Dosage Forms	Beyond the Curriculum/	Oncology I5
and Drug Delivery Systems2	Preparing Practitioners (2)1	PHRM9311
PHRM7202	PHRM9101	Advanced Pharmacy Practice
Pharmaceutics IV: Sterile Products	Advanced Pharmacy Practice	Experience (APPE) VI: Elective –
and Biopharmaceuticals2	Experience (APPE) I: Community5	Critical Care I5
PHRM7301 Biostatistics2	PHRM9102	PHRM9313
PHRM7302	Advanced Pharmacy Practice	Advanced Pharmacy Practice
Epidemiology and Study Design	Experience (APPE) II: Institutional5	Experience (APPE) VI: Elective –
Evaluation	PHRM9103	Cardiology I
PHRM7401	Advanced Pharmacy Practice	PHRM9315
Professional Pharmacy Practice	Experience (APPE) III:	Advanced Pharmacy Practice
III: Drug Information,	Ambulatory Care5	Experience (APPE) VI: Elective – Behavioral Health I5
Informatics and Toxicology2	PHRM9104 Advanced Pharmacy Practice	PHRM9401
PHRM7501	Experience (APPE) IV: Acute Care5	Advanced Pharmacy Practice
Introductory Pharmacy Practice	PHRM9201	Experience (APPE) VII: Elective –
Experience (IPPE) II: Institutional4	Advanced Pharmacy Practice	Drug Information I5
PHRM7700	Experience (APPE) V: Elective –	PHRM9403
Beyond the Curriculum:	Community Practice I	Advanced Pharmacy Practice
Expanding Horizons (1)0	PHRM9203	Experience (APPE) VII: Elective –
PHRM7701	Advanced Pharmacy Practice	Medication Safety I5
Beyond the Curriculum: Expanding	Experience (APPE) V: Elective –	PHRM9405
Horizons (2)1	Ambulatory Care I5	Advanced Pharmacy Practice
PHRM8109	PHRM9205	Experience (APPE) VII: Elective –
Integrated Pharmacotherapy IX:	Advanced Pharmacy Practice	Managed Care I5
Autoimmune Diseases, Rare	Experience (APPE) V: Elective –	-
Diseases and Special Populations3	Community Compounding I5	

B.S. in Biology/Doctor of Pharmacy

Credits	Florham Campus	School of Pharmacy and Health
PHRM9407	•	Sciences Courses for All
Advanced Pharmacy Practice	B.S. in Biology and Doctor of	Undergraduate Majors
Experience (APPE) VII: Elective –	Pharmacy Combined Degree	Years 5 through 7
Specialty Pharmacy I5	,	Credits
PHRM9409	Major Requirements (24 credits)	PHRM6501
Advanced Pharmacy Practice	Credits	Introductory Pharmacy Practice
Experience (APPE) VII: Elective – Medical Device/Patient Safety I 5	BIOL1201	Experience (IPPE) I:
PHRM9501	Biological Diversity	Community4
Advanced Pharmacy Practice	(Lecture and Laboratory)4	PHRM7105
Experience (APPE) VIII:	BIOL1202	Integrated Pharmacotherapy V:
Elective – Public Health I5	Introduction to Molecules, Cells	Neurology, Psychiatry and
PHRM9503	and Genes (Lecture and	Anesthesiology4
Advanced Pharmacy Practice	Laboratory)4	PHRM7106
Experience (APPE) VIII:	BIOL2003	Integrated Pharmacotherapy VI:
Elective – Industry I5	Cell Biology (Lecture and Laboratory)4	Infectious Disease4
PHRM9505	BIOL3253	PHRM7107
Advanced Pharmacy Practice	Comparative Anatomy	Integrated Pharmacotherapy VII:
Experience (APPE) VIII:	(Lecture and Laboratory) 4	Cardiology/Pulmonary II4
Elective – Research I5	BIOL3256	PHRM7108
PHRM9507	Genetics (Lecture and Laboratory) 4	Integrated Pharmacotherapy VIII:
Advanced Pharmacy Practice	BIOL3337	Endocrine, Urinary Tract,
Experience (APPE) VIII:	General Physiology (Lecture	Renal and Reproductive Health4
Elective – Marketing I5	and Laboratory)4	PHRM7111
PHRM9509	Cognate Requirements (19 credits)	Integrated Pharmacotherapy V–VI:
Advanced Pharmacy Practice		Conceptual Connections and
Experience (APPE) VIII:	CHEM1201	Patient Care2
Elective – Patient Advocacy I5	General Chemistry I3	PHRM7112
PHRM9511	CHEM1203	Integrated Pharmacotherapy VII-VIII: Conceptual
Advanced Pharmacy Practice	General Chemistry Laboratory I1	Connections and Patient Care2
Experience (APPE) VIII:	CHEM1202	PHRM7201
Elective – Health Care	General Chemistry II3	Pharmaceutics III: Dosage Forms
Organization Management I5	CHEM1204	and Drug Delivery Systems2
PHRM9513	General Chemistry Laboratory II1	PHRM7202
Advanced Pharmacy Practice	CHEM2261	Pharmaceutics IV: Sterile Products
Experience (APPE) VIII:	Organic Chemistry I3	and Biopharmaceuticals2
Elective – Informatics I	CHEM2262	PHRM7301
PHRM9515	Organic Chemistry II3	Biostatistics2
Advanced Pharmacy Practice Experience (APPE) VIII:	CHEM2263	PHRM7302
	Organic Chemistry Laboratory I1	
Elective – Management I5 PHRM9517	CHEM2264	Evaluation3
Advanced Pharmacy Practice	Organic Chemistry Laboratory II1	PHRM7401
Experience (APPE) VIII:	CHEM3281	Professional Pharmacy Practice
Elective – Regulatory I5	Biochemistry I	III: Drug Information,
PHRM9900	MATH1203	Informatics and Toxicology2
Pharmacy Capstone I 1	Calculus I4	PHRM7501
PHRM9901		Introductory Pharmacy Practice
Pharmacy Capstone II	PHYS1001, PHYS1011	Experience (IPPE) II: Institutional4
J 11	General Physics I (Lecture	PHRM7700
	and Laboratory)4	Beyond the Curriculum:
	PHYS1002, PHYS1012	Expanding Horizons (1)0
	General Physics II (Lecture	PHRM7701
	and Laboratory)4	Beyond the Curriculum: Expanding
		Horizons (2)1
		PHRM8109
		Integrated Pharmacotherapy IX:
		Autoimmune Diseases, Rare Diseases and Special Populations 3

B.S. in Biology/Doctor of Pharmacy

Credits	Credits	Credits
PHRM8110	PHRM9205	PHRM9405
Integrated Pharmacotherapy X:	Advanced Pharmacy Practice	Advanced Pharmacy Practice
Hematology and Oncology3	Experience (APPE) V: Elective –	Experience (APPE) VII: Elective –
PHRM8111	Community Compounding I5	Managed Care I5
Integrated Pharmacotherapy IX-X:	PHRM9207	PHRM9407
Conceptual Connections and	Advanced Pharmacy Practice	Advanced Pharmacy Practice
Patient Care2	Experience (APPE) V: Elective –	Experience (APPE) VII: Elective –
PHRM8112	Medication Therapy	Specialty Pharmacy I5
Integrated Pharmacotherapy I–X:	Management I5	PHRM9409
A Whole System Overview and	PHRM9209	Advanced Pharmacy Practice
Effecting Patient Care2	Advanced Pharmacy Practice	Experience (APPE) VII: Elective –
PHRM8201	Experience (APPE) V: Elective –	Medical Device/Patient Safety I 5
Pharmacogenomics and	HIV/AIDS I 5	PHRM9501
Personalized Medicine 2	PHRM9211	Advanced Pharmacy Practice
PHRM8301	Advanced Pharmacy Practice	Experience (APPE) VIII:
Pharmacoepidemiology,	Experience (APPE) V: Elective –	Elective – Public Health I5
Pharmacoeconomics and	Home Infusion I5	PHRM9503
Health Outcomes3	PHRM9301	Advanced Pharmacy Practice
PHRM8321	Advanced Pharmacy Practice	Experience (APPE) VIII:
Health Care Ethics and Team	Experience (APPE) VI: Elective –	Elective – Industry I5
Decision Making1	Hospital Practice I5	PHRM9505
PHRM8302	PHRM9303	Advanced Pharmacy Practice
Public Health and the Global	Advanced Pharmacy Practice	Experience (APPE) VIII:
Mission of Pharmacy2	Experience (APPE) VI: Elective –	Elective – Research I5
PHRM8402	Acute Care I5	PHRM9507
Professional Pharmacy Practice IV:	PHRM9305	Advanced Pharmacy Practice
Pharmacy Leadership and	Advanced Pharmacy Practice	Experience (APPE) VIII:
Management2	Experience (APPE) VI: Elective –	Elective – Marketing I5
PHRM8700	Long Term Care I5	PHRM9509
Beyond the Curriculum/	PHRM9307	Advanced Pharmacy Practice
Preparing Practitioners (1)0	Advanced Pharmacy Practice	Experience (APPE) VIII:
PHRM8701	Experience (APPE) VI: Elective –	Elective – Patient Advocacy I5
Beyond the Curriculum/	Infectious Disease I5	PHRM9511
Preparing Practitioners (2)1	PHRM9309	Advanced Pharmacy Practice
Credits	Advanced Pharmacy Practice	Experience (APPE) VIII:
PHRM9101	Experience (APPE) VI: Elective –	Elective – Health Care
Advanced Pharmacy Practice	Oncology I 5	Organization Management L5
Experience (APPE) I: Community5	PHRM9311	PHRM9513
PHRM9102	Advanced Pharmacy Practice	Advanced Pharmacy Practice
Advanced Pharmacy Practice	Experience (APPE) VI: Elective –	Experience (APPE) VIII:
Experience (APPE) II: Institutional5	Critical Care I5	Elective – Informatics I5
PHRM9103	PHRM9313	PHRM9515
Advanced Pharmacy Practice	Advanced Pharmacy Practice	Advanced Pharmacy Practice
Experience (APPE) III:	Experience (APPE) VI: Elective –	Experience (APPE) VIII:
Ambulatory Care5	Cardiology I5	Elective – Management I5
PHRM9104	PHRM9315	PHRM9517
Advanced Pharmacy Practice	Advanced Pharmacy Practice	Advanced Pharmacy Practice
Experience (APPE) IV: Acute Care5	Experience (APPE) VI: Elective –	Experience (APPE) VIII:
PHRM9201	Behavioral Health L5	Elective – Regulatory I5
Advanced Pharmacy Practice	PHRM9401	PHRM9900
Experience (APPE) V: Elective –	Advanced Pharmacy Practice	Pharmacy Capstone I 1
Community Practice I	Experience (APPE) VII: Elective –	PHRM9901
PHRM9203	Drug Information I5	Pharmacy Capstone II2
Advanced Pharmacy Practice	PHRM9403	v 1
Experience (APPE) V: Elective –	Advanced Pharmacy Practice	
Ambulatory Care I5	Experience (APPE) VII: Elective –	
I middletory Care I	Medication Safety I5	

B.S. in Biology/Doctor of Physical Therapy

B.S. in Biology/Doctor of Physical Therapy Six-year Program

(with FDU's Henry P. Becton School of Nursing and Allied Health in partnership with the Rutgers School of Health Professions [Rutgers SHP])

This physical therapy program is a collaborative program between Fairleigh Dickinson University and the Rutgers School of Health Professions (Rutgers SHP). Students who successfully complete the program are awarded a B.S. in biology from FDU and a Doctor of Physical Therapy (D.P.T.) degree from Rutgers SHP.

This program offers an outstanding opportunity for talented and motivated students with a strong career interest to fast-track their careers. Students who wish to become physical therapists are provided with a state-of-the-art education that prepares them to be at the forefront of the physical therapy profession.

Students in the entry-level component of the program spend their first years at FDU, completing 92 credits of required courses (48 credits of University and Core requirements and 44 credits of major requirements). Students must formally apply for acceptance into the professional component at the Rutgers SHP Physical Therapy Program.

Once accepted to the professional component, students complete their fourth year of undergraduate study at Rutgers SHP. Upon completion of 38 credits at Rutgers SHP, Fairleigh Dickinson University will award the B.S. in biology degree.

After earning the B.S. degree, students are required to successfully complete an additional 72 credits in the D.P.T. program at Rutgers SHP, upon which Rutgers SHP will award the D.P.T. degree.

Admission Requirements for the D.P.T. Program of Rutgers SHP

- Completion of all the University and Core requirements at FDU while maintaining an overall grade point ratio (GPR) of 3.00;
- A minimum GPR of 3.00 in all required science and mathematics courses;
- Demonstrated knowledge of the physical therapy profession through actual work or volunteer experience;
 - Evidence of community service;
- Formal application to the Rutgers SHP Physical Therapy Program for the professional component of the program;

- Satisfactory scores on all three sections (verbal, quantitative and analytical) of the Graduate Record Examination (GRE);
 - Three letters of recommendation; and

Credits

• Basic computer literacy, including file management, use of word processing and spreadsheet programs and use of email and internet.

Undergraduate Sequence Metropolitan Campus

1st Semester

BIOL1251, BIOL1253 General Biology I (Lecture and Laboratory)..... 4 General Chemistry I......3 **CHEM1203** General Chemistry Laboratory I......1 ENWR1001 Composition I: Rhetoric and Inquiry.....3 MATH1107 Precalculus. 4 **UNIV1001** Total.....16 2nd Semester BIOL1252, BIOL1254 General Biology II (Lecture and Laboratory)...... 4 CHEM1202 General Chemistry II......3 CHEM1204 General Chemistry Laboratory II......1 ENWR1002 Composition II: Research and Argument......3 MATH1201 Calculus I.....4

3rd Semester

UNIV1002

CSCI1105

Preparing for Professional Life......1

Total.....16

Total.....18

Survey of Computers and	
Computer Software	. 3
UNIV2001	
Cross-cultural Perspectives	3
Oral Communication Elective	. 3

4th Semester Credits
BIOL2204, BIOL2224
Human Anatomy and Physiology II
(Lecture and Laboratory)4
CHEM2262
Organic Chemistry II3
CHEM2264
Organic Chemistry Laboratory II2
PSYC1103
General Psychology I3
UNIV2002
Global Issues3
Total15
5th Semester
MEDT1130
Bioethics3
PHYS2201
Physics Laboratory I1
PHYS2203
University Physics I
PSYC2201
Statistics3
Humanities Course*3
Total13
6th Semester
BIOL2125, BIOL2126
Microbiology for the Health Sciences
(Lecture and Laboratory) 4
NURS3208
Introduction to Health Care
Economics3
NURS4420
Health Care Management3

Physics Laboratory II.....1

University Physics II......3

Total.....14

PHYS2202

PHYS2204

*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.

B.S. in Biology/Doctor of Podiatric Medicine

B.S. in Biology/Doctor of Podiatric Medicine Seven-year Program

(with New York College of Podiatric Medicine)

This accelerated, combined degree program provides qualified students the opportunity to complete a baccalaureate degree and a Doctor of Podiatric Medicine (D.P.M.) degree in seven years, one year less than the normal span of eight years. The bachelor's degree (B.S. in biology) is awarded by Fairleigh Dickinson University and the doctoral degree (D.P.M.) by New York College of Podiatric Medicine.

Students are admitted at FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed below, and the first year of study (three semesters) at New York College of Podiatric Medicine. A maximum of 32 credits from New York College of Podiatric Medicine may be transferred toward completion of the B.S. degree at FDU.

Admission to the Combined Degree Program

High school seniors who satisfy the requirements for admission to the FDU preprofessional program may apply for admission to the combined degree program.

All applicants for admission to the combined degree program must satisfy secondary-school preparation in English, mathematics, biology, chemistry and physics. The high school grade point average (GPA) and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating applicants' credentials. Applicants are required to submit score in the verbal and mathematical components of the SAT.

After preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited for an interview with the FDU/ New York College of Podiatric Medicine Joint Admissions Committee.

Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology and are expected to maintain a minimum cumulative grade point ratio of 3.25 or higher in all course work and a minimum of C in all science and mathematics courses.

Qualifying for Enrollment at New York College of Podiatric Medicine

Qualified students enrolled in the combined degree program will be guaranteed a seat at New York College of Podiatric Medicine for training in podiatry. To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission to New York College of Podiatric Medicine. Students need to obtain a grade of C or higher in required courses;
- A grade point ratio (GPR) of 3.00 or nigher;
- Submission of a satisfactory Medical College Admission Test (MCAT) score (at least equal to the current minimum) in a timely fashion;
- A satisfactory evaluation in a personal nterview;
 - At least three letters of evaluation;
- Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts Sciences Professional Studies, Metropolitan Campus, Teaneck, N.J., or the department of biological and allied health sciences at the Florham Campus, Madison, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at New York College of Podiatric Medicine: and

Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering New York College of Podiatric Medicine must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at New York College of Podiatric Medicine.

Prepodiatry Curriculum

Florham Campus

Under the provisions of the prepodiatry program, students matriculate in the School of Natural Sciences of University College: Arts • Sciences • Professional Studies, Metropolitan Campus, or the department of biological and allied health sciences, Florham Campus, for a minimum of 96 credits (University College) and 98 credits (Becton College) of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

Credits

Biology Requirements BIOL1201, BIOL1203 Biological Diversity (Lecture and Laboratory)..... 4 BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory)......4 BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory)...4 BIOL3009, BIOL3019 Microbiology (Lecture and Laboratory)......4 BIOL3253, BIOL3254 Comparative Anatomy (Lecture and Laboratory)...... 4 BIOL3256, BIOL3257 Genetics (Lecture and Laboratory)......4 BIOL3337, BIOL3327 General Physiology (Lecture and Laboratory)...... 4 **Cognate Requirements** (Chemistry, Mathematics, Physics) CHEM1201, CHEM1202 General Chemistry I, II......6 CHEM1203, CHEM1204 General Chemistry Laboratory I, II......2 CHEM2261, CHEM2262 Organic Chemistry I, II......6 CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II......2 CHEM3281 Biochemistry I......3 MATH1107

Precalculus.....4

Applied Statistics......3

Calculus I......4

Students must complete the general education course plan (see pages 54–55) as well.

MATH1133

MATH1203

B.S. in Biology/Doctor of Veterinary Medicine

- 4...- .. - I'4 - ... O -

ivietropolitan Campus
1st Semester Credits
BIOL1251
General Biology I3
BIOL1253
Laboratory: General Biology I1
CHEM1201 General Chemistry I3
CHEM1203
General Chemistry Laboratory I1
ENWR1001
Composition I: Rhetoric and Inquiry3
UNIV1001
Transitioning to University Life1 Total12
2nd Semester
BIOL1252
General Biology IL3
BIOL1254
Laboratory: General Biology II1
CHEM1202
General Chemistry II3
CHEM1204
General Chemistry Laboratory II1
ENWR1002
Composition II: Research and Argument
UNIV1002
Preparing for Professional Life
Mathematics Sequence4
Total16
3rd Semester
BIOL2150, BIOL2250
Ecology and Field Biology
(Lecture and Laboratory)4
CHEM2261 Organic Chemistry I3
CHEM2263
Organic Chemistry Laboratory I2
Mathematics Sequence
Humanities Course*
Total16

4th Semester
BIOL2210, BIOL2211
Genetics (Lecture and Laboratory)4
BIOL2300
Experimental Design
CHEM2262
Organic Chemistry II
CHEM2264
Organic Chemistry Laboratory II2
UNIV2002
Global Issues3
Humanities Course*
Total18
5th Semester Credits
BIOL2237, BIOL2239
Human Structure and Function
(Lecture and Laboratory)4
BIOL3225, BIOL3226
General Microbiology
(Lecture and Laboratory)4
BIOL4900
Biology Seminar I
PHYS2201
Physics Laboratory I
PHYS2203
University Physics I
UNIV2001
Cross-cultural Perspectives
Total16
6th Semester
BIOL4240, BIOL4241
Molecular Cell Biology4
BIOL4405
Ethics in Science
CHEM3281
Biochemistry I
PHYS2202
Physics Laboratory II1
PHYS2204
University Physics II.
Oral Communication Elective
Total17

*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1135 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.

*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

B.S. in Biology/Doctor of Veterinary Medicine Seven-year Program

(with Ross University School of Veterinary Medicine, Basseterre, St. Kitts, West Indies) This accelerated, combined degree program provides qualified students the opportunity to complete a baccalaureate degree and a Doctor of Veterinary Medicine (D.V.M.) degree in seven years, one year less than the normal span of eight years. The bachelor's degree (B.S. in biology) is awarded by Fairleigh Dickinson University and the doctoral degree (D.V.M.) by Ross University. English is the teaching language.

Students are admitted to FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed below, and the first year of study (three semesters) at Ross University. A maximum of 32 credits from Ross University may be transferred toward completion of the B.S. degree at FDU.

The program prepares students interested in pursuing a Doctor of Veterinary Medicine degree to become successful veterinarians in the United States. The program is an accelerated program which takes a little more than three years. The last three semesters are spent on the campus of one of the U.S. veterinary schools affiliated with Ross University School of Veterinary Medicine. The U.S. Department of Education has certified Ross University School of Veterinary Medicine as an eligible institution for the Title IV U.S. Federal Family Education Loan program.

Website: http://www.rossu.edu/vet/.

Admission to the Combined Degree Program

High school seniors with a combined SAT score of 1150 and higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a grade point ratio (GPR) of 3.40 or higher may apply for admission to the combined degree program.

All applicants for admission to the combined degree program must satisfy secondary-school preparation in English, mathematics, biology, chemistry and physics. The high school grade point average and rank in class, along with letters of

B.S. in Biology/Doctor of Veterinary Medicine

recommendation from high school teachers, will be of primary importance in evaluating applicants' credentials. Applicants are required to submit scores in the verbal and mathematical components of the SAT.

After preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited for an interview with the FDU/Ross University Joint Admissions Committee.

Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology and are expected to maintain a minimum cumulative grade point ratio (CGPR) of 3.25 or higher in all course work and a minimum of 3.00 in prerequisite courses required by Ross University.

Qualifying for Enrollment at Ross University School of Veterinary Medicine

Qualified students enrolled in the combined degree program will be guaranteed a seat at Ross University for training in veterinary medicine. To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at Ross University School of Veterinary Medicine. Students need to obtain a GPR of 3.00 or higher in prerequisite courses with no D or F in any of the courses;
 - A GPR of 3.25 or higher;
- Submission of a satisfactory Graduate Record Examinations (GRE) score in the 25th percentile or better in each category;
- Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts Sciences Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at Ross University; and

• Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering Ross University must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at Ross University.

Preveterinary Curricula

Under the provisions of the preveterinary program, students matriculate in either University College: Arts • Sciences • Professional Studies, Metropolitan Campus, or Maxwell Becton College of Arts and Sciences, Florham Campus, for a minimum of 96 credits of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

Florham Campus **Biology Requirements** Credits BIOL1201, BIOL1203 **Biological Diversity** (Lecture and Laboratory)...... 4 BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....4 BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory)...4 BIOL3253, BIOL3254 Comparative Anatomy (Lecture and Laboratory)..... 4 BIOL3256, BIOL3257 Genetics (Lecture and Laboratory)......4 BIOL3337, BIOL3327 General Physiology (Lecture and Laboratory)..... 4 Cognate Requirements (Chemistry, Mathematics, Physics) CHEM1201, CHEM1202 CHEM1203, CHEM1204 General Chemistry Laboratory I, II......2 CHEM2261, CHEM2262 Organic Chemistry I, II......6 CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II......2 CHEM3281 Biochemistry I......3 MATH1107 Precalculus.....4 MATH1133 Applied Statistics......3 MATH1203 Calculus I......4

Students must complete the general education course plan (see pages 54–55) as well, including these specific classes:

Credits

Credits
PHIL1440 Biomedical Ethics3 SPCH1107
Fundamentals of Speech
COMM2099 Professional Communications3
Metropolitan Campus
1st Semester BIOL1251 General Biology I
2nd Semester BIOL1252 General Biology II

B.S. in Chemistry/Doctor of Pharmacy

3rd Semester	Credits
BIOL2150, BIOL2250	
Ecology and Field Biology	
(Lecture and Laboratory)	4
CHEM2261	
Organic Chemistry I	3
CHEM2263	
Organic Chemistry Laboratory I.	
Mathematics Sequence	4
Humanities Course*	
То	tal16
4th Semester	
BIOL2210, BIOL2211	
Genetics (Lecture and Laborator	ry)4
BIOL2300	
Experimental Design	3
CHEM2262	
Organic Chemistry II	3
CHEM2264	
Organic Chemistry Laboratory I	I2
UNIV2002	_
Global Issues	
Humanities Course**	
To	tal18
5th Semester	
BIOL2237, BIOL2239	
Human Structure and Function	
(Lecture and Laboratory)	4
BIOL3225, BIOL3226	
General Microbiology	
(Lecture and Laboratory)	4
BIOL4900 Biology Seminar I	1
PHYS2201	1
Physics Laboratory I	1
PHYS2203	1
University Physics I	3
UNIV2001	
Cross-cultural Perspectives	3
	tal16

6th Semester C	Credits
BIOL4240, BIOL4241	
Molecular Cell Biology	
(Lecture and Laboratory)	4
BIOL4405	
Ethics in Science	3
CHEM3281	
Biochemistry I	3
PHYS2202	
Physics Laboratory II	1
PHYS2204	
University Physics II	3
Oral Communication Elective	3
Total	17

*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or REL1 courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.

**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

B.S. in Chemistry/Doctor of Pharmacy Seven-year Program

(with FDU School of Pharmacy and Health Sciences, Fairleigh Dickinson University)

Fairleigh Dickinson University sophomores and high school seniors can apply to the the B.S. in chemistry plus Pharm.D. combined program (3+4) offered by the School of Pharmacy and Health Sciences.

Sophomore applicants studying chemistry (minimum of 30 credits, maximum of 60 credits), and maintaining a 3.30 grade point ratio must also have a grade of B- or better in all prerequisite college courses. The program is even more competitive for high school students seeking admission: students must have an SAT score of 1150 or higher (on the 1600 scale) and a 3.50 grade point average.

The program is structured so that students complete three years of undergraduate work in a "feeder" science major through the Maxwell Becton College of Arts and Sciences or University College: Arts • Sciences • Professional Studies before transitioning to the School of Pharmacy and Health Sciences to begin four years of graduate work. They ultimately achieve both a Bachelor of Science and Doctor of Pharmacy.

Metropolitan Campus

A minimum of 120 credits for the B.S. degree; 100–104 of these are taken at the Metropolitan Campus in years 1–3 + 28 credits (to be approved by the department chair/director) in year 4 at FDU's School of Pharmacy and Health Sciences. Students not accepted into FDU's School of Pharmacy and Health Sciences have the option of switching out of the B.S. in chemistry/Pharm.D. combined degree and into another concentration.

B.S. in Chemistry and Doctor of Pharmacy Combined Degree

1st Semester	Credits
BIOL1251	
General Biology I	3
BIOL1253	
Laboratory: General Biology I	1
CHEM1201	
General Chemistry I	3
CHEM1203	
General Chemistry Laboratory I	1

B.S. in Chemistry/Doctor of Pharmacy

Credits	4th Semester	Credits	7th Semester	Credits
ENWR1001	CHEM2262		PHRM6100	
Composition I: Rhetoric and Inquiry 3	Organic Chemistry II	3	Foundations in Pharmace	utical
MATH1201	CHEM2264		Science: Pharmacology	٧.
Calculus I4	Organic Chemistry Laborato	rv II2	Medicinal Chemistry,	, -
UNIV1001	PHYS2202	J	Pharmacokinetics	4
Transitioning to University Life1	Physics Laboratory II	1	PHRM6101	
Total16	PHYS2204		Foundations in Integrated	I
10111111111	University Physics II	3	Pharmacotherapy I: A	
2nd Semester	SPCH		Introduction to Pathor	
BIOL1252	Oral Communication Electiv	re* 3	Genetics, Microbiolog	
General Biology II3	UNIV2002	C	Delivery of Care	
BIOL1254	Global Issues	7	PHRM6201	
Laboratory: General Biology II1	Humanities Course**		Pharmaceutics I: Physical	Dharmaey 7
CHEM1202	Tumanities Course		PHRM6211	I Hai illacy
		Total 10		one I 1
General Chemistry II3 CHEM1204		Total18	Pharmaceutical Calculation PHRM6301)118 11
	5th Semester		Medical Communication	om d
General Chemistry Laboratory II 1 ENWR1002				
	BIOL2203, BIOL2223	1 Y	Technical Writing	
Composition II: Research and	Human Anatomy and Physio		PHRM6321	
Argument	(Lecture and Laboratory)	4	Pharmacy Practice Law	2
MATH2202	BIOL4405	_	PHRM6401	
Calculus II4	Ethics in Science	3	Professional Pharmacy Pr	
UNIV1002	CHEM3241, CHEM3243		Health Care Delivery	3
Preparing for Professional Life1	Physical Chemistry I		PHRM6700	
Total16	(Lecture and Laboratory)		Beyond the Curriculum:	
	or		Foundations in Pharma	
3rd Semester	CHEM4233, CHEM4234		Education	
CHEM2261	Instrumental Analysis			Total18
Organic Chemistry I3	(Lecture and Laboratory)	5		
CHEM2263	MATH2337		8th Semester	
Organic Chemistry Laboratory I2	Applied Statistics I	3	PHRM6102	
PHYS2201		Total15	Integrated Pharmacothera	apy II:
Physics Laboratory L1			Gastrointestinal	3
PHYS2203	6th Semester		PHRM6103	
University Physics I3	BIOL2204, BIOL2224		Integrated Pharmacothera	apy III:
UNIV2001	Human Anatomy and Physio	logy II	Dermatology, Over-the	e-Counter
Cross-cultural Perspectives3	(Lecture and Laboratory)	4	Remedies and Self Car	e 3
Humanities Course*3	CHEM3231, CHEM3232		PHRM6104	
Total15	Analytical Chemistry		Integrated Pharmacothera	apy IV:
	(Lecture and Laboratory)	4	Cardiology/Pulmonary	I3
	BIOL4901		PHRM6111	
	Biology Seminar II	1	Integrated Pharmacothera	apy II–IV:
	or		Conceptual Connection	
	CHEM3242, CHEM3244		Patient Care	
	Physical Chemistry II		PHRM6202	
	(Lecture and Laboratory)	5	Pharmaceutics II – Oral D	Oosage
	CHEM3281		Forms and Biopharma	
	Biochemistry I	3	Pharmacokinetics	
	Free Elective		PHRM6402	
		otal15	Professional Pharmacy Pharm	actice II·
	10	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Communication in He	
*Take 3 credits from ENGL (except developmental			PHRM6701	u1111 Ca1C2
English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art			Beyond the Curriculum:	
Appreciation, ART1107 Development of Art I,			Foundations in Pharma	O.C.V.
ART1108 Development of Art II, ART1120 Modern Art			Education (1)	•
to Mid-century, ART1131 History of Graphic Design			Education (1)	17 Total17
and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136	*Requirements consist of a three-credi	t Sneech		10ta11 /
Cinema II: Themes in Films, ART1137 History of	course.	Specia		
Fashion Design, ART2137 Global Roots of American	**Take 3 credits from ENGL, HIST, HU			
Architecture or ART2238 The Global Art World.	PHIL or RELI courses at the 2000-level	or above.		

B.S. in Chemistry/Doctor of Pharmacy

School of Pharmacy and Health	Credits	Credits
Sciences Courses for All	PHRM8110	PHRM9205
Undergraduate Majors	Integrated Pharmacotherapy X:	Advanced Pharmacy Practice
Years 5 through 7	Hematology and Oncology3 PHRM8111	Experience (APPE) V: Elective – Community Compounding I5
Credits	Integrated Pharmacotherapy IX–X:	PHRM9207
PHRM6501	Conceptual Connections and	Advanced Pharmacy Practice
Introductory Pharmacy Practice	Patient Care	Experience (APPE) V: Elective –
Experience (IPPE) I:	PHRM8112	Medication Therapy
Community4	Integrated Pharmacotherapy I-X:	Management I5
PHRM7105	A Whole System Overview and	PHRM9209
Integrated Pharmacotherapy V:	Effecting Patient Care2	Advanced Pharmacy Practice
Neurology, Psychiatry and	PHRM8201	Experience (APPE) V: Elective –
Anesthesiology4 PHRM7106	Pharmacogenomics and	HIV/AIDS I 5
Integrated Pharmacotherapy VI:	Personalized Medicine	PHRM9211
Infectious Disease4	PHRM8301	Advanced Pharmacy Practice
PHRM7107	Pharmacoepidemiology,	Experience (APPE) V: Elective – Home Infusion I5
Integrated Pharmacotherapy VII:	Pharmacoeconomics and Health Outcomes3	PHRM9301
Cardiology/Pulmonary II 4	PHRM8302	Advanced Pharmacy Practice
PHRM7108	Public Health and the Global	Experience (APPE) VI: Elective –
Integrated Pharmacotherapy VIII:	Mission of Pharmacy2	Hospital Practice I5
Endocrine, Urinary Tract,	PHRM8321	PHRM9303
Renal and Reproductive Health4	Health Care Ethics and Team	Advanced Pharmacy Practice
PHRM7111	Decision Making1	Experience (APPE) VI: Elective –
Integrated Pharmacotherapy V–VI:	PHRM8402	Acute Care I5
Conceptual Connections and Patient Care2	Professional Pharmacy Practice IV:	PHRM9305
PHRM7112	Pharmacy Leadership and	Advanced Pharmacy Practice
Integrated Pharmacotherapy	Management2	Experience (APPE) VI: Elective –
VII–VIII: Conceptual	PHRM8700	Long Term Care I5 PHRM9307
Connections and Patient Care2	Beyond the Curriculum/ Preparing Practitioners (1)0	Advanced Pharmacy Practice
PHRM7201	PHRM8701	Experience (APPE) VI: Elective –
Pharmaceutics III: Dosage Forms	Beyond the Curriculum/	Infectious Disease I5
and Drug Delivery Systems2	Preparing Practitioners (2)1	PHRM9309
PHRM7202	PHRM9101	Advanced Pharmacy Practice
Pharmaceutics IV: Sterile Products	Advanced Pharmacy Practice	Experience (APPE) VI: Elective –
and Biopharmaceuticals2	Experience (APPE) I: Community5	Oncology I5
PHRM7301 Biostatistics2	PHRM9102	PHRM9311
PHRM7302	Advanced Pharmacy Practice	Advanced Pharmacy Practice
Epidemiology and Study Design	Experience (APPE) II: Institutional5	Experience (APPE) VI: Elective –
Evaluation	PHRM9103 Advanced Pharmacy Practice	Critical Care I5
PHRM7401	Experience (APPE) III:	PHRM9313 Advanced Pharmacy Practice
Professional Pharmacy Practice	Ambulatory Care5	Experience (APPE) VI: Elective –
III: Drug Information,	PHRM9104	Cardiology I
Informatics and Toxicology2	Advanced Pharmacy Practice	PHRM9315
PHRM7501	Experience (APPE) IV: Acute Care5	Advanced Pharmacy Practice
Introductory Pharmacy Practice	PHRM9201	Experience (APPE) VI: Elective –
Experience (IPPE) II: Institutional4	Advanced Pharmacy Practice	Behavioral Health I5
PHRM7700	Experience (APPE) V: Elective –	PHRM9401
Beyond the Curriculum: Expanding Horizons (1)0	Community Practice I 5	Advanced Pharmacy Practice
PHRM7701	PHRM9203	Experience (APPE) VII: Elective –
Beyond the Curriculum: Expanding	Advanced Pharmacy Practice	Drug Information I5
Horizons (2)1	Experience (APPE) V: Elective –	PHRM9403 Advanced Pharmacy Practice
PHRM8109	Ambulatory Care I5	Advanced Pharmacy Practice Experience (APPE) VII: Elective –
Integrated Pharmacotherapy IX:		Medication Safety I5
Autoimmune Diseases, Rare		incurrence outers in the same of the same
Diseases and Special Populations3		

B.S. in Chemistry/Doctor of Pharmacy

Credits	Florham Campus	4th Semester Credits
PHRM9405		BIOL1206
Advanced Pharmacy Practice	B.S. in Chemistry and Doctor of	Anatomy and Physiology II4
Experience (APPE) VII: Elective -	Pharmacy Combined Degree*	BIOL1208
Managed Care I5	1st Semester Credits	Lab: Anatomy and Physiology II0
PHRM9407	BIOL1201, BIOL1211	CHEM2262, CHEM2266
Advanced Pharmacy Practice	Biological Diversity4	Organic Chemistry II3
Experience (APPE) VII: Elective –	BIOL1203	CHEM2264
Specialty Pharmacy I5	Lab: Biological Diversity0	Lab: Organic Chemistry II1
PHRM9409	CHEM1201, CHEM1211	MATH1133
Advanced Pharmacy Practice	General Chemistry I3	Applied Statistics
Experience (APPE) VII: Elective –	CHEM1203	PHYS2004, PHYS2024
Medical Device/Patient Safety I 5	General Chemistry Laboratory I1	General Physics with Calculus II4
PHRM9501	ENGW1101	PHYS2014
Advanced Pharmacy Practice Experience (APPE) VIII:	College Writing Workshop3	Lab: General Physics with Calculus II0 Total15
Elective – Public Health I5	MATH1203	10ta113
PHRM9503	Calculus I4	5th Semester
Advanced Pharmacy Practice	UNIV1001	CHEM3241, CHEM3245
Experience (APPE) VIII:	Transitioning to University Life 1	Physical Chemistry I
Elective – Industry I5	Total16	CHEM3243
PHRM9505		Lab: Physical Chemistry
Advanced Pharmacy Practice	2nd Semester	CHEM3281
Experience (APPE) VIII:	BIOL1202, BIOL1212	Biochemistry I
Elective – Research I5	Introduction to Molecules, Cells	CHEM338
PHRM9507	and Genes4	Biochemistry Laboratory1
Advanced Pharmacy Practice	BIOL1204	UNIV1002
Experience (APPE) VIII:	Introduction to Molecules, Cells	Preparing for Professional Life 1
Elective – Marketing I5	and Genes Lab0 CHEM1202, CHEM1212	Language Course4
PHRM9509	General Chemistry II3	Total14
Advanced Pharmacy Practice	CHEM1204	
Experience (APPE) VIII:	General Chemistry Laboratory II1	6th Semester
Elective – Patient Advocacy I5	ENGW1102	CHEM2221
PHRM9511	Research Writing Workshop3	Analytical Chemistry4
Advanced Pharmacy Practice	MATH2202	CHEM2223
Experience (APPE) VIII:	Calculus II4	Lab: Analytical Chemistry 0
Elective – Health Care	Total15	CHEM3242, CHEM3246
Organization Management I5 PHRM9513		Physical Chemistry II3 CHEM3244
Advanced Pharmacy Practice	3rd Semester	Physical Chemistry Laboratory II2
Experience (APPE) VIII:	BIOL1205	ECON2001
Elective – Informatics I5	Anatomy and Physiology L4	Introduction to Microeconomics3
PHRM9515	BIOL1207	SPCH1107
Advanced Pharmacy Practice	Lab: Anatomy and Physiology I0	Fundamentals of Speech3
Experience (APPE) VIII:	CHEM2214	Textual and Aesthetic Analysis3
Elective – Management I5	Basic Inorganic Chemistry 4	Total18
PHRM9517	CHEM2213	
Advanced Pharmacy Practice	Lab: Basic Inorganic Chemistry 0	
Experience (APPE) VIII:	CHEM2261, CHEM2265	
Elective – Regulatory I5	Organic Chemistry I3 CHEM2263	
PHRM9900	Organic Chemistry Laboratory I3	
Pharmacy Capstone I 1	PHYS2003, PHYS2023	
PHRM9901	General Physics with Calculus I4	
Pharmacy Capstone II2	PHYS2013	
	Lab: General Physics with	
	Calculus I0	
	Total16	

*This is not American Chemical Society (ACS) certi-

B.S. in Chemistry/Doctor of Pharmacy

7th Semester Credits	Cabaal of Bharmany and Haalth	Credits
PHRM6100	School of Pharmacy and Health	PHRM8109
Foundations in Pharmaceutical	Sciences Courses for All	
Science: Pharmacology,	Undergraduate Majors	Integrated Pharmacotherapy IX: Autoimmune Diseases, Rare
Medicinal Chemistry,	Years 5 through 7	Diseases and Special Populations3
Pharmacokinetics	Credits	PHRM8110
PHRM6101	PHRM6501	Integrated Pharmacotherapy X:
Foundations in Integrated	Introductory Pharmacy Practice	Hematology and Oncology3
Pharmacotherapy I: An	Experience (IPPE) I:	PHRM8111
Introduction to Pathophysiology,	Community4	Integrated Pharmacotherapy IX–X:
Genetics, Microbiology and	PHRM7105	Conceptual Connections and
Delivery of Care3	Integrated Pharmacotherapy V:	Patient Care2
PHRM6201	Neurology, Psychiatry and	PHRM8112
Pharmaceutics I: Physical Pharmacy 3	Anesthesiology4	Integrated Pharmacotherapy I–X:
PHRM6211	PHRM7106	A Whole System Overview and
Pharmaceutical Calculations I 1	Integrated Pharmacotherapy VI:	Effecting Patient Care2
PHRM6301	Infectious Disease4	PHRM8201
Medical Communication and	PHRM7107	Pharmacogenomics and
Technical Writing2	Integrated Pharmacotherapy VII:	Personalized Medicine
PHRM6321	Cardiology/Pulmonary II4	PHRM8301
Pharmacy Practice Law2	PHRM7108	Pharmacoepidemiology,
PHRM6401	Integrated Pharmacotherapy VIII:	Pharmacoeconomics and
Professional Pharmacy Practice I:	Endocrine, Urinary Tract,	Health Outcomes3
Health Care Delivery3	Renal and Reproductive Health4	PHRM8302
PHRM6700	PHRM7111	Public Health and the Global
Beyond the Curriculum:	Integrated Pharmacotherapy V–VI:	Mission of Pharmacy2
Foundations in Pharmacy	Conceptual Connections and	PHRM8321
Education (1)0	Patient Care	Health Care Ethics and Team
Total18	PHRM7112	Decision Making1
	Integrated Pharmacotherapy	PHRM8402
8th Semester	VII–VIII: Conceptual	Professional Pharmacy Practice IV:
PHRM6102	Connections and Patient Care2	Pharmacy Leadership and
Integrated Pharmacotherapy II:	PHRM7201	Management2
Gastrointestinal3	Pharmaceutics III: Dosage Forms	PHRM8700
PHRM6103	and Drug Delivery Systems2 PHRM7202	Beyond the Curriculum/
Integrated Pharmacotherapy III:	Pharmaceutics IV: Sterile Products	Preparing Practitioners (1)0
Dermatology, Over-the-Counter	and Biopharmaceuticals2	PHRM8701
Remedies and Self Care	PHRM7301	Beyond the Curriculum/
PHRM6104	Biostatistics2	Preparing Practitioners (2)1
Integrated Pharmacotherapy IV:	PHRM7302	PHRM9101
Cardiology/Pulmonary I3	Epidemiology and Study Design	Advanced Pharmacy Practice
PHRM6111	Evaluation	Experience (APPE) I: Community5
Integrated Pharmacotherapy II–IV:	PHRM7401	PHRM9102
Conceptual Connections and	Professional Pharmacy Practice	Advanced Pharmacy Practice
Patient Care	III: Drug Information,	Experience (APPE) II: Institutional5
PHRM6202	Informatics and Toxicology2	PHRM9103
Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/	PHRM7501	Advanced Pharmacy Practice Experience (APPE) III:
Pharmacokinetics2	Introductory Pharmacy Practice	Ambulatory Care5
PHRM6212	Experience (IPPE) II: Institutional3	PHRM9104
Pharmaceutical Calculations II1	PHRM7700	Advanced Pharmacy Practice
PHRM6402	Beyond the Curriculum:	Experience (APPE) IV: Acute Care5
Professional Pharmacy Practice II:	Expanding Horizons (1)0	PHRM9201
Communication in Health Care2	PHRM7701	Advanced Pharmacy Practice
PHRM6701	Beyond the Curriculum: Expanding	Experience (APPE) V: Elective –
Beyond the Curriculum:	Horizons (2)1	Community Practice I
Foundations in Pharmacy		2
Education (2)1		

Total.....17

B.S. in Chemistry/Doctor of Pharmacy

Credits	Credits
PHRM9203	PHRM9403
Advanced Pharmacy Practice	Advanced Pharmacy Practice
Experience (APPE) V: Elective –	Experience (APPE) VII: Elective –
Ambulatory Care I5	Medication Safety I5
PHRM9205	PHRM9405
Advanced Pharmacy Practice	Advanced Pharmacy Practice
Experience (APPE) V: Elective –	Experience (APPE) VII: Elective –
Community Compounding I5	Managed Care I5
PHRM9207	PHRM9407
Advanced Pharmacy Practice	Advanced Pharmacy Practice
Experience (APPE) V: Elective –	Experience (APPE) VII: Elective –
Medication Therapy	Specialty Pharmacy I5
Management I	PHRM9409
Advanced Pharmacy Practice	Advanced Pharmacy Practice Experience (APPE) VII: Elective –
Experience (APPE) V: Elective –	Medical Device/Patient Safety I 5
HIV/AIDS I 5	PHRM9501
PHRM9211	Advanced Pharmacy Practice
Advanced Pharmacy Practice	Experience (APPE) VIII:
Experience (APPE) V: Elective –	Elective – Public Health I5
Home Infusion I5	PHRM9503
PHRM9301	Advanced Pharmacy Practice
Advanced Pharmacy Practice	Experience (APPE) VIII:
Experience (APPE) VI: Elective –	Elective – Industry I5
Hospital Practice I5	PHRM9505
PHRM9303	Advanced Pharmacy Practice
Advanced Pharmacy Practice	Experience (APPE) VIII:
Experience (APPE) VI: Elective –	Elective – Research I5
Acute Care I5	PHRM9507
PHRM9305	Advanced Pharmacy Practice
Advanced Pharmacy Practice	Experience (APPE) VIII:
Experience (APPE) VI: Elective –	Elective – Marketing I5
Long Term Care I5	PHRM9509
PHRM9307	Advanced Pharmacy Practice
Advanced Pharmacy Practice	Experience (APPE) VIII:
Experience (APPE) VI: Elective – Infectious Disease I5	Elective – Patient Advocacy I5
PHRM9309	PHRM9511 Advanced Pharmacy Practice
Advanced Pharmacy Practice	Experience (APPE) VIII:
Experience (APPE) VI: Elective –	Elective – Health Care
Oncology I5	Organization Management I5
PHRM9311	PHRM9513
Advanced Pharmacy Practice	Advanced Pharmacy Practice
Experience (APPE) VI: Elective –	Experience (APPE) VIII:
Critical Care I5	Elective – Informatics I5
PHRM9313	PHRM9515
Advanced Pharmacy Practice	Advanced Pharmacy Practice
Experience (APPE) VI: Elective -	Experience (APPE) VIII:
Cardiology I5	Elective – Management I5
PHRM9315	PHRM9517
Advanced Pharmacy Practice	Advanced Pharmacy Practice
Experience (APPE) VI: Elective –	Experience (APPE) VIII:
Behavioral Health I5	Elective – Regulatory I5
PHRM9401	PHRM9900
Advanced Pharmacy Practice	Pharmacy Capstone I
Experience (APPE) VII: Elective –	PHRM9901
Drug Information I5	Pharmacy Capstone II2