**University Requirements:**

\_\_\_ ENGL110 First Year Writing\*

\_\_\_ First Year Experience I, 1 cr (UNIV101)

**\_√\_** Discovery Learning Experience (DLE) 3 cr (satisfied by MMSC462)

\_\_\_ Multicultural Requirement 3 cr \_\_\_\_\_\_\_\_\_\_(may simultaneously satisfy breadth or 2nd writing)

\_\_\_ University Breadth Requirements\* (these must be from **four different areas of study**/course rubrics)

\_√\_ Creative Arts & Humanities\* 3 cr (satisfied by ≥ C- in HLTH241)

\_\_\_ History & Cultural Change\* 3 cr \_\_\_\_\_\_\_\_\_\_\_

\_√\_ Social & Behavioral Sciences\* 3cr (satisfied by ≥ C- in PSYC100)

\_√\_ Math, Natural Science & Technology\* 3 cr (satisfied by ≥ C- in BISC207 or 208, CHEM103 or 104)

\_√\_ Capstone Experience (satisfied by MMSC462)

**MAJOR REQUIREMENTS:**

\_\_\_ Second Writing Requirement (must be designated in term taken; may also be breadth)

\_\_\_ Mathematics (one of the following; MATH114, 115, 117, 221 or 241)

\_\_\_ English Course: any ENGL course ≥200 level (may simultaneously satisfy breadth or 2nd writing)

\_\_\_ Additional Breadth

\_\_\_ Choose Creative Arts & Humanities, History & Cultural Change or

Social & Behavioral Sciences 3 cr \_\_\_\_\_\_\_\_\_\_\_

**Core (86 credits):**

\_\_\_ BISC207 Introductory Biology I:4

\_\_\_ BISC208 Introductory Biology II: 4

\_\_\_ CHEM103/133 Gen Chem/for Life Sci I: 4

\_\_\_ CHEM104/134 Gen Chem/for Life Sci II:4

\_\_\_ CHEM213 Elementary Organic Chem:3\*\*

\_\_\_ CHEM215 Elementary Organic Chem Lab:1\*\*

\_\_\_ CHEM214 Elem Biochem:3\*\*

\_\_\_ CHEM216 Elementary Biochem Lab:1\*\*

\_\_\_ HLTH241 Ethical Aspects of Healthcare: 3

\_\_\_ KAAP309 Human Anatomy & Physiology I: 4

\_\_\_ KAAP310 Human Anatomy & Physiology II: 4

\_\_\_ MMSC100 Intro Med & Molec Sciences (P/F)\*: 1

\_\_\_ MMSC200 The Language of Medicine\*: 3

\_\_\_ MMSC270 Med Microbio & Infectious Disease: 4 or BISC300 Introduction to Microbiology: 4

\_\_\_ MMSC402 Body Fluid Analysis\*: 2

\_\_\_ MMSC407 Clin Physiological Chem I\*: 3

\_\_\_ MMSC409 Immunohematology I\*: 2

\_\_\_ MMSC415 Clinical Immun & Medical Virology\*: 3

\_\_\_ MMSC420 Immunohematology II\*: 2

\_\_\_ MMSC423 Hematology I\*: 2

\_\_\_ MMSC428 Medical Microbiology & Parasitology\*: 3

\_\_\_ MMSC433 Hematology II\*: 2

\_\_\_ MMSC436 Clin Physiological Chem II\*: 3

\_\_\_ MMSC438 Diagnostic Bacteriology & Medical

Mycology\*: 3

\_\_\_ MMSC462 Interdisciplinary Healthcare

Perspectives\*: 3

\_\_\_ MMSC490 Clinical & Molecular Cell Bio: 3 or

BISC401 Molecular Bio of the Cell: 3

\_\_\_ MMSC491 Human Molecular Genetics: 3 BISC303 Concepts in Genetics & Molecular Bio: 3 or

BISC403 Genetics: 3

\_\_\_ HBNS (NTDT) 200 Nutrition Concepts: 3

\_\_\_ PSYC100 General Psychology: 3

\_\_\_ STAT200 Basic Statistical Practice: 3 or

STAT408 Statistical Research Methods: 3

\_\_\_ ≥ 120 credits/2.0 Cum GPA required for graduation

√ - indicates that this requirement will be satisfied by a course within the required major/core courses

\* ≥ C- required

\*\* may substitute the sequence of **CHEM321/325 AND 322/326 AND CHEM214** for **CHEM 213/215 AND 214/216**

Please note: in order to be positioned competitively for admission to PA, medical and dental programs as well as most other medical/healthcare professional or grad programs, a minimum cumulative undergraduate GPA of 3.0 will likely be required, with many programs well in excess of that. Students are advised to confirm admission requirements at your specific program(s) of interest.

**Suggested MDD-PPA Academic Program Sequence**

Consult with your advisor for possible alternative sequencing and term availability of courses. MMSC course term availability listed below is proposed for the **2024-25** academic year but is subject to change. Refer to Course Descriptions

at <https://udapps.nss.udel.edu/CourseDescription/> for associated course Prerequisites and Corequisites.

**First Year 30 credits**

**FALL – 16 credits**

BISC207 Intro Biology I: 4

CHEM103/133 Gen Chemistry: 4

Mathematics: 3

MMSC100 Intro to Medical & Molecular Sciences (P/F): 1

UNIV101 First Year Experience I: 1

Breadth Requirement\_\_\_\_\_­­\_­­\_\_\_\_\_\_\_: 3

**SPRING – 14 credits**

BISC208 Intro Biology II: 4

CHEM104/134 Gen Chemistry: 4

ENGL110 First Year Writing: 3

MMSC200 The Language of Medicine: 3

**Second Year 29 credits**

**FALL – 14 credits**

CHEM213 Elementary Organic Chem: 3\*\*

CHEM215 Elem Organic Chem Lab: 1\*\*

KAAP309 Human Anatomy & Physiology I: 4

HBNS (NTDT200) Nutrition Concepts: 3

PSYC100 General Psychology: 3

**SPRING – 15 credits**

CHEM214 Elementary Biochemistry: 3\*\*

CHEM216 Elem Biochemistry Lab: 1\*\*

KAAP310 Human Anatomy & Physiology II: 4

MMSC270 Med Micro/Infect Dis or BISC300 Intro Micro: 4

Breadth Requirement\_\_\_\_\_­­\_\_\_­­\_\_\_\_\_\_\_: 3

**Third Year 30 credits**

**FALL – 14 credits; MMSC courses below Fall only**

MMSC402 Body Fluid Analysis: 2

MMSC415 Clinical Immunology & Medical Virology: 3

STAT200 Basic Statistical Practice or

STAT408 Statistical Research Methods: 3

Second Writing Requirement (designated each term): 3

Elective\_\_\_\_\_\_\_\_\_\_\_: 3

**SPRING – 16 credits; MMSC courses below Spring only**

HLTH241 Ethical Aspects of Healthcare: 3

MMSC407 Clinical Physiological Chemistry I: 3

MMSC409 Immunohematology I: 2

MMSC423 Hematology I: 2

MMSC428 Medical Microbiology & Parasitology: 3

Elective­­\_\_\_\_\_\_\_\_\_\_\_: 3

**Fourth Year 31 credits**

**FALL – 16 credits; MMSC courses below Fall only**

MMSC420 Immunohematology II: 2

MMSC433 Hematology II: 2

MMSC436 Clinical Physiological Chemistry II: 3

MMSC438 Diagnostic Bacteriology & Med Mycology: 3

MMSC490 Clin & Molecular Cell Biology: 3 **OR**

BISC401 Molecular Biology of the Cell: 3

Elective: ­­­\_\_\_\_\_\_\_\_\_\_\_: 3

**SPRING – 15 credits; MMSC course below Spring only** ENGL200 or higher: 3

MMSC462 Interdisciplinary Healthcare Perspectives: 3

MMSC491 Human Molecular Genetics: 3 **OR** BISC303 Con in Gen & Molecular Biology:3 **OR** BISC403 Genetics: 3

Multicultural: \_\_\_\_\_\_\_\_\_\_\_: 3

Elective­­\_\_\_\_\_\_\_\_\_\_\_: 3

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**4+1 BS/MS Program students substitute**: 1) MMSC603 Research Design for STAT200, and 2) MMSC690 Clinical & Molecular Cell Biology for MMSC490

Students are strongly advised to refer to their **Degree Audit** regularly (accessed via UDSIS) to confirm progressive completion of graduation requirements as designated in the UD online Undergraduate Catalog. Although every effort is made to accurately reflect curriculum requirements here, students are responsible for utilizing the Degree Audit for official confirmation of the status of degree requirement completion.

Medical Diagnostics Pre-Physician Assistant 23-24 program requirements can be found at: [www.udel.edu/catalog](http://www.udel.edu/catalog) > Programs > Medical Diagnostics - Pre Physician Assistant Concentration (BS) . Please be sure to select the correct academic year for your program requirements.

\*\* may substitute the sequence of **CHEM321/325 AND 322/326 AND CHEM214** for **CHEM213/215 and 214/216**