



2021 Catalog

Trinity School of Medicine

University Catalog 2021
Trinity Medical Sciences University

This catalog is an official publication of Trinity Medical Sciences University (TMSU) and is intended to provide general information. The document contains information about the institution, institutional governance, accreditation, administration, admissions, curriculum, graduation requirements, and course descriptions as well as other information and policies. Every effort has been made to ensure the information in the catalog is accurate at the time of publication. The catalog is not intended to address all the possible applications of, or exceptions to, the policies and procedures of Trinity Medical Science University, some of which are addressed in other official documents.

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If you have a question about a specific policy or procedure, you should address your question to the Vice President of Student Services if you are in the admissions process or to the Associate Dean of Student Affairs if you are a member of the student body.

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Contents

Academic Calendars.....	7
Trinity School of Medicine	7
Preclinical Terms (Terms 1-4) and Clinical Transition Term (Term 5)	7
Clinical Rotation Terms (Terms 6-10)	8
School of Biomedical Sciences	9
Premedical Program	9
About TMSU.....	9
History	9
Mission Statement	9
Vision Statement	9
Core Values	9
Strategic Goals	9
Recognition & Accreditation	9
Approach to Learning	10
Teaching Approach and Didactic Methods	10
Defined Course Objectives	10
Early Clinical & Community Medicine Experience	10
External (Standardized) Exams	10
Faculty Teaching Approach	11
Trinity School of Medicine	12
Doctor of Medicine	12
Admissions.....	12
Trinity School of Medicine	12
Doctor of Medicine	12
Academic Prerequisites	12
MCAT	12
Application & Supporting Documentation	12
Transfer Policy	12
Re-Admission Policy	14
Previous Attendance at Foreign Institutions	15
Tuition and Fees.....	15
Tuition Policy	15
Books & Instruments	16
STUDENT FINANCIAL AID	16
<i>US Students – Student Loans</i>	16

<i>US Students - Veterans Benefits</i>	17
<i>Canadian Students - Loans</i>	17
Scholarships and Grants.....	17
Health & Minimum Technical Standards	17
Conclusion	19
Competency Based Objectives	19
Medical Knowledge	19
Patient Care	19
Practice-based Learning	20
Communication Skills	20
Professionalism	20
Systems-based Practice	20
Academic Standing	21
Traditional Curriculum	21
Paced Program	21
Curriculum for Terms 1-4	21
Paced Programmatic	21
Term 5 (Transitional Term)	22
Independent Study	22
Clinical Clerkships - Terms 6-10	23
Core Clerkships	23
Elective Clerkships	24
Dress Code	24
Examination Policy	24
General Examination Policies	24
Internal Examinations	24
External Examinations - NBME Subject Exams	25
TMSU-SOM Course Grading	25
Common Rules of Grading	25
Honors grades	25
Approval of grades	25
Failed Course Remediation	25
Incomplete Grade	26
Withdrawal	26
Grading System for Core Clerkships	26
Grading Scale for NBME Subject Exams	27

Grading of Elective Clerkships	27
United States Medical Licensing Examination (USMLE) Preparation and Testing	27
Trinity Clinical Skills Assessment – M4 OSCE	27
Qualities of Graduates	27
Core Competencies	27
Entrustable Professional Attributes	28
Graduation	28
Honors Designation	28
Official Date of Graduation	28
Course Descriptions	28
School of Biomedical Sciences	39
TMSU-SBS Mission Statement	39
Vision	39
School of Biomedical Sciences	39
Transfer Policy	39
Associate of Science Degree	39
Admission Requirements	39
Bachelor of Science Degree	39
Admission Requirements	39
International Applicants	39
Requirements for International Applicants	39
Non-US Citizens	40
Previous Attendance at Foreign Institutions	40
Tuition and Fees	40
Books & Instruments	40
Competency-based Learning	40
Knowledge	40
Critical Thinking	41
Communication Skills	41
TMSU-SBS Course Grading	41
Common Rules of Grading	41
Grading System for TMSU-SBS	41
Approval of grades	41
Curriculum	41
Non-degree, Associate of Science Degree and Bachelor of Science Degree	41
Academic Standing	42

Honors Designation	42
Advancement to the Doctor of Medicine Courses	42
Course Descriptions	42

Academic Calendars

Trinity School of Medicine

Preclinical Terms (Terms 1-4) and Clinical Transition Term (Term 5)

TERM DATES	2021	2022	2023	2024
JANUARY TERM				
New Student Orientation	January 8, 2021	January 4, 2022	January 3, 2023	January 2, 2024
First day of classes	January 11, 2021	January 10, 2022	January 9, 2023	January 8, 2024
Last Day to Register	January 15, 2021	January 14, 2022	January 13, 2023	January 12, 2024
Last Day of Regular Term	April 25, 2021	April 24, 2022	April 23, 2023	April 21, 2024
Break	April 26 – May 9, 2021	April 25 – May 8, 2022	April 24 – May 7, 2023	April 22, 2024 – May 5, 2024
MAY TERM				
New Student Orientation	April 30, 2021	April 29, 2022	April 28, 2023	April 26, 2024
First day of classes	May, 10, 2021	May 9, 2022	May 8, 2023	May 6, 2024
Last Day to Register	May, 14, 2021	May 13, 2022	May 12, 2023	May 10, 2024
Last Day of Regular Term	August 22, 2021	August 21, 2022	August 20, 2023	August 18, 2024
Break	August 23 – September 5, 2021	August 22 – September 4, 2022	August 21 – September 3, 2023	August 19 – September 1, 2024
SEPTEMBER TERM				
New Student Orientation	August 27, 2021	August 26, 2022	August 25, 2023	August 23, 2024
First day of classes	September 6, 2021	September 5, 2022	September 4, 2023	September 2, 2024
Last Day to Register	September 10, 2021	September 9, 2022	September 8, 2023	September 6, 2024
Last Day of Regular Term	December 19, 2021	December 18, 2022	December 17, 2023	December 15, 2024
Break	December 20, 2021 – January 9, 2022	December 19, 2022 – January 8, 2023	December 18, 2023 – January 7, 2024	December 16, 2024 – January 12, 2025

*Preclinical Terms follow Vincentian Holidays

**Clinical Transition Term and Clinical Rotation Terms follow US Holidays

Clinical Rotation Terms (Terms 6-10)

TERM AND IMPORTANT DATES*	2021	2022	2023	2024
JANUARY TERM				
New Student Orientation	January 2, 2021	December 28, 2021	December 27, 2022	December 27, 2023
Block 1	January 4, 2021	January 3, 2022	January 2, 2023	January 3, 2024
Block 2	January 25, 2021	January 24, 2022	January 23, 2023	January 22, 2024
Block 3	February 15, 2021	February 14, 2022	February 13, 2023	February 12, 2024
Block 4	March 8, 2021	March 7, 2022	March 6, 2023	March 4, 2024
Block 5	March 29, 2021	March 28, 2022	March 27, 2023	March 25, 2024
Block 6	April 19, 2021	April 18, 2022	April 17, 2023	April 15, 2024
Break	May 10 – May 16, 2021	May 9 – May 15, 2022	May 8 – May 14, 2023	May 6, 2024 – May 12, 2024
MAY TERM				
New Student Orientation	May 13, 2021	May 5, 2022	May 4, 2023	May 2, 2024
Block 7	May 17, 2021	May 16, 2022	May 15, 2023	May 13, 2024
Block 8	June 7, 2021	June 6, 2022	June 5, 2023	June 3, 2024
Block 9	June 28, 2021	June 27, 2022	June 26, 2023	June 24, 2024
Block 10	July 19, 2021	July 18, 2022	July 17, 2023	July 15, 2024
Block 11	August 9, 2021	August 8, 2022	August 7, 2023	August 5, 2024
Break	August 30 – September 5, 2021	August 29 – September 4, 2022	August 28 – September 3, 2023	August 26 – September 1, 2024
SEPTEMBER TERM				
New Student Orientation	September 2, 2021	August 25, 2022	August 24, 2023	August 22, 2024
Block 12	September 6, 2021	September 5, 2022	September 4, 2023	September 2, 2024
Block 13	September 27, 2021	September 26, 2022	September 25, 2023	September 23, 2024
Block 14	October 18, 2021	October 17, 2022	October 16, 2023	October 14, 2024
Block 15	November 8, 2021	November 7, 2022	November 6, 2023	November 4, 2024
Block 16	November 29, 2021	November 28, 2022	November 27, 2023	November 25, 2024
Break	December 20, 2021 – January 2, 2022	December 19, 2022 – January 2, 2023	December 18, 2023 – January 2, 2024	December 16, 2024 – January 5, 2025

BOLD = Clinical Start Blocks

*Preclinical Terms follow Vincentian Holidays

**Clinical Terms follow US Holidays

School of Biomedical Sciences

Premedical Program

TERM DATES	2021	2022	2023	2024
JANUARY TERM				
New Student Orientation	January 8, 2021	January 7, 2022	January 6, 2023	January 5, 2024
First day of classes	January 18, 2021	January 17, 2022	January 16, 2023	January 15, 2024
Last Day to Register	January 22, 2021	January 21, 2022	January 20, 2023	January 19, 2024
Last Day of Regular Term	April 25, 2021	April 24, 2022	April 23, 2023	April 21, 2024
Break	April 26 – May 9, 2021	April 25 – May 8, 2022	April 24 – May 7, 2023	April 22, 2024 – May 5, 2024
MAY TERM				
New Student Orientation	May 7, 2021	May 6, 2022	May 5, 2023	May 3, 2024
First day of classes	May, 17, 2021	May 16, 2022	May 15, 2023	May 13, 2024
Last Day to Register	May, 21, 2021	May 20, 2022	May 19, 2023	May 17, 2024
Last Day of Regular Term	August 22, 2021	August 21, 2022	August 20, 2023	August 18, 2024
Break	August 23 – September 5, 2021	August 22 – September 4, 2022	August 21 – September 3, 2023	August 19 – September 1, 2024
SEPTEMBER TERM				
New Student Orientation	September 3, 2021	September 2, 2022	September 1, 2023	August 30, 2024
First day of classes	September 13, 2021	September 12, 2022	September 11, 2023	September 9, 2024
Last Day to Register	September 17, 2021	September 16, 2022	September 15, 2023	September 13, 2024
Last Day of Regular Term	December 19, 2021	December 18, 2022	December 17, 2023	December 15, 2024
Break	December 20, 2021 – January 9, 2022	December 19, 2022 – January 8, 2023	December 18, 2023 – January 7, 2024	December 16, 2024 – January 12, 2025

*Premedical Terms follow Vincentian Holidays

About TMSU

History

Trinity School of Medicine was established in 2008 in St. Vincent and the Grenadines with its main campus in the town of Ratho Mill in the Parish of Saint George. Its founders, with great support from the local government, were committed to providing a quality medical education program for future physicians that met the highest standards internationally. In 2012, the School graduated its charter class. In its ten years of operation, the School has steadily increased its academic resources and student enrollment. In addition to its core Doctor of Medicine (MD) degree program, The School has offered a premedical (non-degree) program and a Master of Health Science degree program.

In 2017, the School began the transition to a university structure. The legal name of the School was changed to Trinity Medical Sciences University (TMSU), comprised of two schools: The School of Biomedical Sciences and the School of Medicine. The former Pre-medical program and the Master of Health Sciences program became part of the School of Biomedical Sciences. The curriculum in the undergraduate program, formerly the Pre-Medical program, was structured for students to earn a Bachelor of Science degree. The University structure best supports a broader range of academic outcomes for our diverse student population. The Board of Trustees approved the organization and curriculum changes and in July 2018, the formal transition to Trinity Medical Sciences University was publicly announced.

Because the School of Medicine continues to represent the substantial portion of enrollment at TMSU, TMSU and TSOM may be referred to interchangeably throughout this document. Aspects of the University that are common across its Schools are discussed in the TMSU section of this document. Aspects specific to the School of Medicine and the School of Biomedical Sciences are discussed in separate sections hereunder.

Mission Statement

Trinity Medical Sciences University is a community of professionals committed to excellence in education, research and scholarly activity, patient care and well-being, and community service.

Vision Statement

Become a leading student-focused health sciences university by cultivating a team spirit approach to delivering value to the communities we serve.

Core Values

INTEGRITY: Unwavering adherence to professional and ethical conduct.

RESPECT AND HONESTY: Conducting ourselves in a manner that respects the value of each individual.

COMPETENCE: Demonstrating mastery of the skills of one's profession or vocation.

COMPASSION: Showing empathy and concern for the well-being of others.

STRIVING FOR SUCCESS: Performing at the highest level possible.

SERVICE: Offering our talents and skill toward betterment of our communities.

COLLABORATION: Working together and respecting each other's contributions.

Strategic Goals

Three strategic goals form the foundations of commitment to the core values:

Goal 1: Enhance student success - TMSU is committed to excellence in the education of its students. The faculty and administration seek to identify initiatives and strategies that will continue to provide and improve opportunities for students to achieve success.

Goal 2: Enhance research and scholarly activity - TMSU recognizes that research and scholarly activity demonstrate a commitment to educational growth by faculty and model lifelong learning for students. The University is committed to strengthening support for initiatives, particularly in medical education, that create an environment open to personal growth.

Goal 3: Promote service to the community - TMSU believes that students will make a difference in the world beginning with participation in opportunities and connectivity to communities. TMSU is committed to developing these opportunities.

Recognition & Accreditation

Trinity School of Medicine is registered with the **National Accreditation Board (NAB)** of the Government of St. Vincent and the Grenadines.

Trinity School of Medicine is accredited by the **Caribbean Accreditation Authority for Education in Medicine and other Health Professions (CAAM-HP)**, the legally constituted body established to accredit medical programs in the Caribbean.

CAAM-HP accredited schools in St. Vincent have been recognized by the US Department of Education as accredited at a standard comparable to United States

medical schools, as so governed by the LCME. Not only is Trinity School of Medicine one of those schools, it is the only CAAM-HP accredited school in the country of St. Vincent and the Grenadines.

Trinity School of Medicine is listed in the World Directory of Medical Schools, a directory developed through a partnership between the World Federation for Medical Education (WFME) and the Foundation for the Advancement of International Medical Education and Research (FAIMER); FAIMER was established in 2000 by the U.S. Educational Commission on Foreign Medical Graduates.

The listing in FAIMER/IMED and the assignment of a code provides the sanction for Trinity students to register for and take the USMLE Steps 1, Step 2 and Step 3 examinations. Students who successfully complete Step 1 and Step 2 (CK) and (CS), and otherwise meet the requirements for graduation from Trinity, are then authorized by the Educational Commission on Foreign Medical Graduates (ECFMG) to register for and participate in the National Residency Match Program (NRMP) as well as the Canadian Resident Matching Service (CaRMS).

Finally, Trinity School of Medicine is compliant with the Education Committee for Foreign Medical Graduates (ECFMG) **2023 rule** dictating that all international medical graduates be required to have graduated from a school that has been appropriately accredited.

Questions or concerns regarding the University's accreditation should be directed to

CAAM-HP at CAAM-HP Secretariat, Suite #7
Pinnacle Point, 53 Lady Musgrave Road
Kingston 10, Jamaica
875-927-4765.

The purpose of publishing the commission's contact information is to enable interested parties 1) to learn about the accreditation status, 2) to file a third-party comment at the time of the institution's review, or 3) to file a complaint against the institution for alleged non-compliance with a standard or requirement.

Approach to Learning

TMSU strives to incorporate state of the art proven medical curricula and teaching principles by utilizing several approaches.

Teaching Approach and Didactic Methods

A comprehensive description of teaching formats, didactic concepts, and educational methodology used in TMSU-SBS and TMSU-SOM courses can be found in the individual

course syllabi. In clinical clerkships, these are found in the Clinical Clerkship Manual for each core clerkship.

Defined Course Objectives

- Each course has learning objectives and includes a plan that will guide students through mastery of those objectives.
- The use of appropriate assessment tools to ensure students meet the required objectives.
- Exams that assess student preparation, participation, critical thinking skills, and knowledge application.
- Evaluation through various formats that assess each student's capabilities to demonstrate problem solving and conduct.

Early Clinical & Community Medicine Experience

Clinical exposure starts the first month of the School of Medicine doctor of medicine degree program and continues throughout all terms. These experiences provide for the development of clinical skills required during the clinical portion of a student's education.

External (Standardized) Exams

Medical subject exams issued by the US National Board of Medical Examiners (NBME) are administered to Trinity students in term 1 (Biochemistry), term 2 (Anatomy and Physiology), and term 4 (Pathology, Pharmacology, Microbiology). Exam security is approved by the NBME. Results provide unbiased and direct evidence of the performance of TMSU medical students compared to their US peers.

Students are required to take the exam at the scheduled time. The 2-digit score provided by NBME will count as 20% of the course grade. Students who do poorly on this exam may fail the course if the overall course grade is less than 70% after the course adjustment.

Achieving a 199 on the NBME Comprehensive Basic Sciences Exam (CBSE) is a requirement to pass Integrated Systems Review in term 5. A second failure of this course will result in a recommendation for dismissal. Students must pass the CBSE within a maximum of six (6) attempts or be dismissed. The six-attempt maximum includes any CBSE scores from a previous school. A score of 199 or better is a prerequisite to be certified for registering for the USMLE. Failure to do so will result in dismissal without the right to appeal.

Students must pass the USMLE Step 1 exam before taking core clerkships. Failure to do so in the allowed number of attempts will result in dismissal.

Students must pass an NBME Clinical Subject (shelf) Exam at the end of each core clerkship: family medicine, internal medicine, obstetrics and gynecology, pediatrics, psychiatry, and surgery. A student failing any NBME Clinical Subject examination (shelf exam) at the end of clerkships twice or any three exams will be recommended for dismissal. Students must take the exam at the end of the clerkship in that specialty. Failure to take the exam at the required time will limit the score to “pass” only for grading purposes. All exams must be passed prior to taking the NBME Step 2 CK and Step 2 CS.

Students must pass the USMLE Step 2 CK and Step 2 CS exams in the allowed number of attempts to meet the requirements for graduation. Failure to do so results in dismissal.

Faculty Teaching Approach

Faculty:

1. Establish and maintain highest academic standards in keeping with best international practices.
2. Create a productive, collegial, and honest teaching environment of the highest caliber that strives for excellence in academic content and in methods of its delivery.
3. Embrace the values of the medical profession and incorporate those values into our curriculum.
4. Integrate basic and clinical sciences throughout the doctor of medicine program utilizing Milton Cato Memorial Hospital and its clinics on St. Vincent and the Grenadines. Continuously improve Trinity School of Medicine’s curriculum so that it responds to and incorporates changes in medical knowledge and practice.

Trinity School of Medicine

Doctor of Medicine

Admissions

TMSU is a private institution and encourages applications from qualified students who are interested in pursuing a career in medicine and health sciences.

Trinity School of Medicine

Trinity School of Medicine is building a tradition of excellence for its academic programs and dedicated, engaged faculty. TMSU-SOM is known for an education environment emphasizing academic excellence and the education of caring, compassionate physicians who place patients' needs above all other concerns.

Doctor of Medicine

Academic Prerequisites

A minimum of 90 credit hours (or equivalent) is required from a regionally accredited undergraduate institution and the completion of the required courses below prior to matriculation.

Biology with Lab: one academic year with laboratory experience. Advanced placement credits cannot be used to satisfy this requirement; upper level courses should be taken if granted advanced placement credits.

General/Inorganic Chemistry with Lab: one academic year.

Organic Chemistry with Lab: one academic year. A semester of biochemistry (with or without lab) may substitute for the 2nd semester of organic chemistry.

Mathematics: one semester of college level mathematics, calculus or statistics highly recommended.

English: any non-science courses that involve expository writing will satisfy this requirement.

*While **physics** is not a requirement, to be well prepared students are encouraged to seek courses that provide a foundational understanding of fluids, gases, and pressure variations.*

Students not meeting the requirements above may apply to the School of Biomedical Sciences to complete the undergraduate requirements.

MCAT

Medical College Admissions Test (MCAT) scores are required for U.S. and Canadian applicants (and strongly encouraged for all applicants). Scores must be from exams taken within the past four years. Applicants will supply an access code for release of certified test results from the Association of American Medical Colleges (AAMC). The MCAT requirement is not applicable for transfer applicants (see below).

Application & Supporting Documentation

The following *items* must be provided for admissions consideration:

Completed Application for Admission - Applicants may submit copies of common applications (AMCAS, AACOMAS, TMDSAS, OMSAS) or complete the **Online Application** on the Trinity School of Medicine website.

Application fee of \$50 (U.S.)

Letter(s) of Recommendation - Must come directly from the letter writer. Recommended sources are your University Pre-health advising office, professors, physicians, and supervisors who are not family members and who can confirm the applicant's academic ability and/or provide evidence of positive character traits. A committee that prepares such letters may satisfy this requirement with one packet; otherwise, two letters must be provided, one of which must be from an academic source.

Transcripts must be submitted from all undergraduate colleges, graduate and/or professional programs attended. Unofficial transcripts are acceptable to initiate the admissions process. Prior to matriculation, official transcripts from each institution attended must be submitted to the Office of Admissions.

Transfer Policy

Transfer Candidates will be considered as follows:

1. Transfer students must be transferring from an accredited US or Canadian medical school or an international school that is appropriately accredited.
2. If transferring from an international school, the school must be listed with the World Directory of Medical Schools and the student must have earned their credits within the period that ECFMG has provided as eligible to apply for certification (see Sponsor Notes section of the medical school on the WDMS website). If the medical school is in a country that has adopted CAAM-HP as the accrediting body, the school must have CAAM-HP accreditation.

School of Medicine

3. If transferring from a school that has obtained Accreditation Commission on Colleges of Medicine accreditation (ACCM) students may apply if the school is located in one of the following countries: Saint Maarten, Cayman Islands, Federation of St. Kitts and Nevis, Aruba, Curacao, or Anguilla. Students who have been enrolled in medical schools in these countries are not eligible to apply to Trinity unless their school has ACCM or at least provisional CAAM-HP accreditation.
4. Applicants who have attended more than one allopathic or osteopathic medical school in the past will not be considered, there are no exceptions to this rule.
5. A transfer student may not have been out of school for more than one year *at the time of application*. This includes time a student may be on leave to study. If a student can document that he/she has been out longer than one year on medical leave, this one-year limit may be waived.
6. Applications for Transfer will be considered for students who will enter in Terms 1 through 5 or in Term 6 **only** if the applicant has passed Step 1 with a minimum of 212 on the USMLE on the first attempt. No transfers will be considered for Terms 7 through 10.
7. All accepted transfer students may defer for one term only for financial reasons as determined by the Enrollment Services Manager, but only if they have secured their seat deposit within the time frame listed in their acceptance agreement. All others who do not enroll to the term to which they apply will need to reapply.
6. If an applicant wishes to transfer into term 6, they must not be sent to the Admissions Committee until we have received their official USMLE score transcript directly from ECFMG.
7. Transfer students must submit a complete application along with their transcripts from their current or previous medical school, along with their undergraduate / graduate transcripts. Applications will not be reviewed prior to the receipt of all documents.
8. An interview will be arranged with a Regional Director of Admissions. Following the interview, a recommendation will be made to the Admissions Committee (AC) through the Associate Dean for Admissions.

General guidelines for course credit for **Preclinical Term Transfer Students** (Transfers into Terms 1-4):

1. Any classes in which a student has earned a 2.5 or above, and has provided a syllabus, will be considered for transfer provided there is alignment with the TSOM curriculum in terms of content, duration, and credit hours.
2. If a class carries significantly more credit hours at TSOM than at the student's transfer school, a student must repeat the course.
3. If a class taken at a prior school is a block course and the subject represents a portion of a course at TSOM, no credit will be awarded for the subject.
4. Transfer credits may not be awarded for course work from an enrollment to study medicine that was completed or discontinued more than 2 years before the date of the transfer application.
5. If a transfer student has so few credits to transfer that they start in Term 1, they must start over and apply as a new student.
6. If any transfer student needs to take a course that spans two terms, they **MUST** start in Terms 1 or 3.
7. The Associate Dean for Admissions in consultation with the Admissions Committee will develop a study plan to be sent to the student with any offer of acceptance. Transcripts will not be subject to review prior to a complete application being submitted to the AC.
8. All incoming transfer students must be aware of, be willing to comply with and sign off on all Trinity School of Medicine health requirements and deadlines as outlined in the Student Guide and the Student Health Form.

Transfer applicants must document/submit the following:

1. Transfer Candidates to the MD Program must have an overall 2.5 GPA or greater and must be able to provide an official transcript at the time of application.
2. No credit will be accepted for courses with a grade of less than C+ or for courses that are not part of the Trinity curriculum.
3. Transfer applicants must request a letter from the Dean or ranking member of the leadership of the previous school to be sent directly to the Dean of Trinity that addresses the student's academic and professional performance. For students dismissed, this letter should include a description of the events leading to dismissal.
4. Students must submit 2 letters of recommendation from medical school professors or deans.
5. Although an MCAT score is not required of a transfer applicant, if the applicant has taken the

School of Medicine

9. Once a transfer student has been accepted into Terms 1-4, Trinity School of Medicine will further evaluate course progression and potential overlaps in class schedules when finalizing a transfer student's schedule to deal with and to organize around potential scheduling overlaps is the responsibility of the transfer student.

General Guidelines for **Transitional Term Transfer Students** (Transfer into Term 5):

1. If an applicant has successfully completed a course of study in the basic sciences, but has not been cleared to take Step 1 of the USMLE, that student must start in Term 5 and take both CLMD 405 (Introduction to Clinical and Community Medicine V) and CLMD 406 (Integrated Systems Review).
2. If an applicant has successfully completed a course of study in the basic sciences and has been cleared to take the USMLE Step 1 by their previous school, but was dismissed for missing the deadline, that student must start in Term 5 both CLMD 405 (Introduction to Clinical and Community Medicine V) and CLMD 406 (Integrated Systems Review).
3. Students transferring into Term 5 may be assessed for clinical skills and be required to take additional clinical skills remediation as deemed necessary by the Senior Associate Dean for Clinical Clerkships.
4. Students transferring into Term 5 will be provisionally or conditionally admitted to Term 5. Continued enrollment is contingent upon the following requirements:
 - a. Successful completion of both CLMD 405 (Introduction to Clinical and Community Medicine V) and CLMD 406 (Integrated Systems Review).
 - b. Successfully meeting the minimal CBSE requirement for CLMD 406 by the end of the term.
5. Successful completion of these conditions will place the student in good academic standing. Failing to successfully complete these conditions will result in dismissal from the school.

General Guidelines for **Clinical Term Transfer Students** (Transfers into Term 6):

1. No credit will be given for any core or elective clerkships or rotations completed while enrolled at another school.
2. Only applicants who have passed Step 1 with a minimum score of 212 on the first attempt will be considered for transfer into Term 6.

3. Applicants must be able to submit an official transcript from their previous undergraduate and medical school at the time of application.
4. No clerkship will be scheduled until all official transcripts are received.
5. Although an MCAT score is not required of a transfer applicant, if the applicant has taken the MCAT in the past, the score should be included in the information submitted to the Admissions Committee.
6. No applicant will be considered who has been dismissed/withdrawn from his/her previous school for more than 1 year and/or has taken Step 1 more than one year prior to application (unless the applicant has been continuously enrolled in clerkships or their Step 1 score is 225 or higher).
7. If a transfer applicant has been dismissed from the previous school because of poor performance in clerkships, he/she must furnish a letter from the Dean or member of the leadership explaining the circumstances.
8. All accepted Term 6 transfer students may defer for one term only and only for financial reasons as determined by the Trinity School of Medicine administrator in charge of financial aid. All others who do not enroll to the term to which they apply must reapply.
9. All Term 6 transfers must be prepared to submit background checks, certifications, visas and all other documents as required by Trinity School of Medicine and the hospitals where they will be working a **minimum of one month prior to beginning clerkships**.
10. No clerkships will be scheduled until all credentialing documents are received and processed by the appropriate clinical offices.
11. Transfer students into Term 6 must be aware of, be willing to comply with, and sign off on all applicable Trinity School of Medicine and hospital health requirements, completely and in a timely manner, prior to beginning Term 6.

Transfers will be accepted based on their individual applications and the availability of adequate educational resources to accommodate their needs without compromising the needs of other students. In the latter instance, an applicant may be waitlisted or offered a delayed entry.

Re-Admission Policy

Any student who has withdrawn in good standing from TMSU and wishes to reapply for the undergraduate or MD programs must follow all of the processes and procedures of the regular admissions process. In addition, applications

School of Medicine

for readmission must be supported by two *new* letters of recommendation as well as by transcripts of any formal academic training taken since leaving TMSU. Any student who withdrew in good standing from TMSU ordinarily may not submit an application for readmission until two academic terms have passed.

Consideration is given to the complete record of each applicant, the length of absence, the activities undertaken during the absence and the number of student places available in the class. Readmission is not guaranteed and, if approved, may be conditional. Readmission may require performance of specific tasks at a specific standard, prior to or following readmission.

Any student who was dismissed from TMSU for academic or professionalism reasons will not be considered for readmission.

Previous Attendance at Foreign Institutions

Applicants with college credit at foreign institutions, or institutions teaching in a language other than English, must submit official foreign transcripts to one of the following evaluation services as part of the admissions processes.

Those applicants applying in either of the following situations:

- a. as a new, first time student but has attended a non-US college or university for any portion of their undergraduate degree, or
- b. as a transfer student from a non-US medical school whose curriculum differs from US medical education curricular standards

must have their college/university level courses evaluated by one of the listed below.

Educational Credential Evaluators, Inc.

PO Box 514070
Milwaukee, WI 53203-3470
414-289-3400

Josef Silny and Associates

International Education Consultants
7101 SW 102 Avenue
Miami, FL 33171

World Education Services, Inc.

PO Box 745 Old Chelsea Station
New York, NY 10113-0745
212-966-6411

TMSU will consider credit only if an internal review or the evaluation service has indicated the coursework taken was similar to coursework taken at an institution that is comparable to a regionally accredited US institution of higher learning.

Tuition and Fees

	Per Term	No of Terms	Total for Degree Program
Tuition			
Basic Sciences (Years 1, 2)	\$14,900	5	\$ 74,500
Basic Sciences - Tuition per Credit Hour for Repeated Courses	993		As incurred
Term 5 Remediation	7,300		As incurred
Term 6 Remediation	7,300		As incurred
Clinical Medicine (Years 3, 4)	16,600	5	83,000
Fees			
Records Administration Fee	325	10	3,250
Student Activity Fee	50	10	500
Student Health Insurance	710	10	7100
Malpractice Insurance	233	5	1,165
NBME Test Fees	150	10	1,500
USMLE Exam Prep Fees	125	10	1,250
Total Tuition and Fees			\$ 172,265

Tuition Policy

Terms 1-5

All Active Students will pay the full-time tuition rate in effect for each Calendar Term in which they are classified as Full-Time Students. Total tuition for Academic Terms 1-5 will be capped at an aggregate amount equal to five (5) academic terms at the full-time tuition rate then in effect for each completed term, plus (ii) Repeated Credit Hours at the hourly tuition rate in effect in the Calendar Term in which they are billed for Academic Term 5.

If during any Calendar Term during Academic Terms 1-5 an Active Student is classified as a Part-Time Student, the student will pay tuition at the part-time tuition rate per credit hour in those Calendar Terms. The same aggregate tuition for Terms 1-5 as set forth in the previous paragraph will apply for students who have been classified in one or more terms as a Part-Time Student. Any resulting tuition adjustment will be applied to the student's account in Academic Term 5.

In order to advance to Clinical Clerkships (Year 3), each Student must pass the Comprehensive Basic Sciences Exam (CBSE) and the USMLE Step 1 Exam. The CBSE is

School of Medicine

offered to all students twice during Academic Term 5. Students who do not pass CBSE during Academic Term 5 must remediate Academic Term 5. The tuition amount shown in the table above is incremental to the cap applied to tuition for Academic Terms 1-5. Students who pass CBSE will advance to Academic Term 6 to prepare and sit for the USMLE Step 1 Exam and if successful to proceed to Core Clerkships. Students who do not pass USMLE Step 1 during Academic Term 6 must remediate Academic Term 6.

Terms 6-10

Full-Time Tuition will be billed for each consecutive Calendar Term in which a student is classified as an Active Student. Total tuition for Academic Terms 6-10 will be capped at an aggregate amount equal to five (5) terms of full-time tuition, at the tuition rate then in effect for each completed term. Subject to application of the tuition cap, a student must be a full-time tuition-paying student in any academic term in which the student is scheduled in a core or elective rotation. The tuition amount shown in the table above for Term 6 Remediation (see preceding paragraph) is incremental to the cap applied to tuition for Academic Terms 6-10.

All Academic Terms in which a student is enrolled at Trinity are tuition-paying terms pursuant to the foregoing tuition table, unless the student has requested and been granted a Leave of Absence or has reached applicable tuition caps. Students reaching tuition caps will be assessed a minimum tuition fee of \$100 per Academic Term in order to qualify as a tuition-paying student for student loan purposes.

Students who are dismissed, withdraw, or otherwise cannot advance, will not be eligible for a refund of tuition or fees.

Fees

Student Fees. Standard fees include Records Administration Fee, Student Activity Fee, NBME exam fees and USMLE Step exam prep fees.

Health Insurance. Students are required to carry University-provided health insurance during all terms in which they are actively enrolled in course activities conducted in St. Vincent and the Grenadines or in the clinical transition term and clerkships in the U.S. Students taking online courses in the School of Biomedical Sciences are not eligible to enroll in the student health insurance plan. Vincentian students are exempt from plan enrollment during terms of study in St. Vincent. Eligible students will be automatically enrolled for individual

coverage and may elect dependent coverage at additional premium cost.

Malpractice Insurance. At all times that a student is engaged in clinical rotations (Years 3 and 4), students are required to carry malpractice insurance. The University provides the coverage through its insurance carrier and bills students for each academic term in which the student is continuing in clerkship rotations.

Note: The above fees are charged at the beginning of each term. Tuition and fees are subject to change at the start of each academic year.

The tuition refund shall follow the Institutional Refund Policy; please review policy for details.

Books & Instruments

The approximate costs for course textbooks are as follows. Most text books are available digitally at no additional cost to students. Purchase of print copies of those texts is optional for students.

<i>Terms 1-5 Textbooks</i>	<i>\$1300.00</i>
<i>Terms 6-8 Textbooks</i>	<i>\$ 300.00</i>

The approximate cost for instruments is:

Instrument Kit \$ 900.00

Note: Instruments shipped to St. Vincent, including shipping are approximately \$1500.00.

Student Financial Aid

Financial Planning

The Office of Student Services supports and provides information, guidance, and counseling to students in the development of their student financial plans.

Student budgeting worksheets for the Premedical and Medical programs are available through online resources of the Office of Student Services. These budgeting tools are designed to help students plan and arrange adequate financial resources to complete their full degree programs.

Funding Sources

US Students – Student Loans

TMSU does not participate in U.S. Title IV Federal Loan Programs. Students are not required to complete a FAFSA form.

School of Medicine

TMSU has made arrangements with certain private student loan organizations to offer student loan programs for TMSU students. Programs descriptions and corresponding application and disbursement instructions are available through the online resources of the Office of Student Services.

TMSU has no affiliation with any student loan organizations and earns no fees or other compensation for the placement of student loans through these organizations.

The Office of Student Services provides advisory assistance to students in budgeting, planning and applying for student loans to improve their likelihood of success in securing loan funds. However, the availability of credit through these student loan organizations is based solely on the credit quality of the loan applicant. TMSU has no involvement or responsibility in credit approval decisions and makes no representations or warranties regarding the availability of credit to any student.

US Students - Veterans Benefits

TMSU is recognized by the United States Veterans Administration for the administration of Post 911 GI Bill and other related benefits programs.

Students eligible for veterans' benefits should review the US Veterans GI Bill Program in the online resources of the Office of Student Services for information on securing benefits while attending TMSU. Benefits can include funds for tuition, fees, housing, and textbooks.

Canadian Students - Loans

Students can submit applications for provincial and federal financial assistance for all provinces and territories with the exception of Quebec, which does not fund international schools outside of Canada.

Students should contact their respective Provinces and Territories for a complete explanation of the various financial aid and loan programs that may be available to them. Please note that our Canadian Loan Institution Code is ZUCF.

Many Canadian banks have Medical Student Lines of Credit or similar programs and may offer funding for MD degree programs. The Office of Student Services can provide assistance in identifying participating banks and can also provide verification of enrollment letters and other documents as necessary to support loan applications.

Scholarships and Grants

Trinity School of Medicine offers a variety of scholarships and grants to students, in addition to student awards available from 3rd party sources (VA, Mustique, SVG Bursary, etc.). The Office of Student Services will assist incoming students in identifying available awards and submitting applications for those awards. This section covers TMSU-provided awards.

Scholarships are criteria-based awards for duration of degree program, subject to minimum performance criteria to retain the scholarship each Term.

- President's Scholarship
- Chancellor's Scholarship
- Dean's Scholarship
- Physician's Scholarship
- Vincentian Scholarship

Grants are awards to address hardship, to recognize prior meritorious service in health fields, and to address specific economic conditions such as currency fluctuation, etc.

Applicants and students desiring to apply for scholarships and grants should contact the Office of Student Services.

Health & Minimum Technical Standards

The Trinity School of Medicine has developed technical standards to assist in determining whether applicants for admission or candidates seeking the degree of Doctor of Medicine are qualified to pursue a career in medicine. This section contains the technical standards of the School of Medicine. The technical standards are based on guidelines produced by the Association of American Medical Colleges (AAMC). All applicants who reach the interview stage will be required to read the Technical Standards and to sign a copy to indicate that they understand its contents. The signed form is kept as part of the record of all matriculating students.

Medicine is a physically and mentally demanding profession in which practitioners are asked to place the interests of their patients above their own. It requires a commitment to a life of service and dedication to continuous learning. The rigorous four-year medical school curriculum is where candidates begin to develop the qualities necessary for the

School of Medicine

practice of medicine. It is during this period of medical education that the candidate acquires the foundation of knowledge, attitude, skills, and behaviors that he or she will need throughout his or her professional career. During this period, it is critical for the School of Medicine to evaluate whether the candidate is qualified to receive a degree of Doctor of Medicine. The School of Medicine has a responsibility to society to train physicians competent to care for their patients with critical judgment, broadly based knowledge, and well-honed technical skills. The abilities that physicians must possess to practice safely are reflected in the technical standards that follow. **Thus, applicants and students must be able to meet these standards and successfully complete all identified requirements to be admitted to the School of Medicine, to progress through the curriculum and ultimately, to receive the degree of Doctor of Medicine.** Candidates for the degree of Doctor of Medicine must be capable of performing in defined areas: Visual, Oral-Auditory, Motor, Sensory, Strength and Mobility, Cognitive, and Social.

Visual: Candidates must be able to observe and participate in experiments in the basic sciences, for example, physiologic and pharmacologic demonstrations, and microscopic studies of microorganisms and tissues. In order to make proper clinical decisions, candidates must be able to observe a patient accurately. Candidates must be able to acquire information from written documents, films, slides, or videos. Candidates must also be able to interpret X-ray and other graphic images, and digital or analog representations of physiologic phenomena, such as EKGs with or without the use of assistive devices. Thus, functional use of vision is necessary (close and at a distance).

Oral-Auditory: Candidates must be able to communicate effectively, sensitively and quickly with patients (must be able to speak and hear) and members of the health care team (both verbal and written). Candidates must be fluent in English. In emergency situations, candidates must be able to understand and convey information essential for the safe and effective care of patients in a clear, unambiguous, and concise fashion. In addition, candidates must have the ability to relate information to and receive information from patients in a caring and confidential manner.

Motor: Candidates must possess the motor skills necessary to perform palpation, percussion, auscultation and other diagnostic maneuvers. Motor skill demands require reasonable endurance, strength, and precision. Candidates should have sufficient motor function to be able to do basic laboratory tests (such as urinalysis or CBC), carry out diagnostic procedures (such as proctoscopy or paracentesis) and read EKGs and diagnostic images. A candidate should be able to execute motor movements reasonably required

to provide general care and emergency treatment to patients. Examples of emergency treatment reasonably required of physicians are cardiopulmonary resuscitation, administration of intravenous medication, application of pressure to stop bleeding, opening of obstructed airways, suturing of simple wounds and performance of simple obstetrical maneuvers. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of senses of touch and vision.

Sensory: Candidates need enhanced sensory skills, including accuracy within specific tolerances and functional use for laboratory, classroom, and clinical experiences. Students who are otherwise qualified but who have significant tactile sensory or productive disabilities must be evaluated medically. These disabilities include individuals who have been injured by significant burns, have sensory motor deficits, cicatrix formation, or malformation of upper extremities.

Strength and Mobility: Candidates must have sufficient posture, balance, flexibility, mobility, strength, and endurance for standing, sitting and participating in laboratory, classroom, and clinical settings.

Cognitive: To effectively solve clinical problems, candidates must be able to measure, calculate, reason, analyze, integrate, and synthesize in a timely fashion. In addition, they must be able to comprehend three-dimensional relationships and understand the spatial relationships of others.

Social: Candidates must possess the emotional health required for the full utilization of their intellectual abilities; for the exercise of good judgment needed for the prompt completion of all responsibilities attendant to the diagnosis and care of patients; and for the development of effective relationships with patients. Candidates must be able to tolerate physically taxing workloads and function effectively under stress. They must be able to adapt to changing environments, display flexibility, and learn to function in the face of uncertainties inherent in the clinical problems of patients. The unpredictable needs of patients are at the heart of becoming a physician. Academic and clinical responsibilities of students must require their presence during day and evening hours, any day of the week. Students will be judged not only for their scholastic accomplishments, but also on their physical and emotional capacities to meet the full requirements of Trinity's curriculum, and to graduate as skilled and effective practitioners of medicine.

Conclusion

The following technical requirements apply:

- Is the candidate able to observe demonstrations and participate in experiments in the basic sciences?
- Is the candidate able to analyze, synthesize, extrapolate, solve problems, and reach diagnostic and therapeutic judgments?
- Does the candidate have sufficient use of the senses of vision and hearing, and the somatic sensation necessary to perform a physical examination? Can the candidate perform palpation, auscultation, and percussion?
- Can the candidate reasonably be expected to relate to patients and establish sensitive, professional relationships with patients?
- Can the candidate reasonably be expected to learn and perform routine laboratory tests and diagnostic procedures?
- Can the candidate reasonably be expected to communicate the results of the examination to the patient and to his colleagues with accuracy, clarity, and efficiency?
- Can the candidate reasonably be expected to perform routine invasive procedures as part of training using universal precautions without substantial risk of infection to patients?
- Can the candidate reasonably be expected to perform with precise, quick, and appropriate actions in emergency situations?
- Can the candidate reasonably be expected to display good judgment in the assessment and treatment of patients?
- Can the candidate reasonably be expected to possess the perseverance, diligence, and consistency to complete the medical school curriculum and enter the independent practice of medicine?
- Can the candidate reasonably be expected to accept criticism and respond by appropriate modification of behavior?

All applicants to Trinity Medical Sciences University will be required to attest to their ability to meet all technical requirements prior to review by the Admissions Committee. Advancing students from the Premedical Program must attest to the same.

Competency Based Objectives

TMSU faculty are charged with meeting the following Competency Based Objectives through all courses and clerkships.

Medical Knowledge

Goal Statement: Medical students are expected to master a foundation of clinical knowledge with integration of basic sciences and the translation of that knowledge to the clinical setting. Graduates from Trinity School of Medicine will be able to:

- Demonstrate knowledge of normal and abnormal structure and function of the human body on the macroscopic, microscopic, and molecular levels.
- Identify the pathology and pathophysiology of various diseases and correlate them with clinical signs and symptoms.
- Demonstrate knowledge of common or significant, acute and chronic clinical problems.
- Differentiate between normal and abnormal development and age-related changes across the life span.
- Demonstrate comprehension of clinical interventions and agents including pharmaceutical, surgical, genetic, complementary and alternative medicines, and other therapies.
- Demonstrate knowledge and ability to interpret epidemiological and public health contributions to understanding health and disease.
- Demonstrate knowledge of preventive medicine and current guidelines for health promotion and disease screening.

Patient Care

Goal Statement: Medical students, as members of the healthcare team, are expected to provide patient and family centered care that is compassionate and effective for the promotion of health and the management of illness. Graduates from Trinity School of Medicine will be able to:

- Treat patients using a patient and family centered care approach.
- Obtain a complete and accurate medical history that covers essential aspects, also addressing issues related to age, gender, and culture, use of complementary medicine, family dynamics and socioeconomic status.
- Perform both complete and symptom-focused physical examinations, including mental status examination.
- Perform or participate in routine technical procedures (Procedures determined by core clerkships).
- Construct a differential diagnosis for common clinical presentations.
- Identify and interpret the most useful clinical, laboratory, imaging, and pathologic testing for common clinical presentations.

School of Medicine

- Construct appropriate and efficient therapeutic management and prevention strategies for patients with common conditions, both acute and chronic, including medical, psychiatric, and surgical conditions, and those requiring short- and long-term rehabilitation.

Practice-based Learning

Goal Statement: Medical students are expected to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their practice of medicine. Graduates from Trinity School of Medicine will be able to:

- Develop strategies for continuous individual improvement through monitoring performances, reflection, engaging in new learning, applying new learning, and monitoring impact of learning.
- Accept constructive criticism and modify behavior based on feedback.
- Develop clinical questions related to patients' problems and demonstrate skills to find evidence that is relevant and valid information to answer clinical questions using medical information technology.

Communication Skills

Goal Statement: Medical students are expected to demonstrate skills that result in effective communication and collaboration with patients, families, and professional associates. Graduates from Trinity School of Medicine will be able to:

- Demonstrate the ability to establish a positive patient-doctor relationship based on mutual trust and respect for patients' privacy, dignity, individual integrity and culture.
- Communicate with others in a respectful, professional and non-judgmental manner and demonstrate effective listening skills (e.g., maintaining eye contact, body posture, verbal and non-verbal facilitation skills).
- Demonstrate the ability to give a clear, concise, and organized oral presentation and written documentation of a history and physical exam with basic elements of assessment and plan that addresses the psychosocial and biomedical needs of the patient for a focused or complete patient encounter.
- Conduct an interview with a limited English-speaking patient through appropriate use of an interpreter.
- Recognize barriers to effective communication and implement strategies to overcome these barriers

(e.g., health literacy, vision/hearing impairment, disabled, pediatric, geriatric).

- Educate patients on preventive strategies and medical risks and benefits in medical decision-making.

Professionalism

Goal Statement: Medical students are expected to demonstrate professional behavior, commitment to ethical principles, and sensitivity to diverse patient populations.

Graduates from Trinity School of Medicine will be able to:

- Demonstrate honesty, integrity, and ethical behavior in all interactions with patients and other health care professionals
- Describe the importance of protecting patient privacy and identifying personal health information, including when and when not to share information
- Identify the ethical hazard and respond appropriately in situations such as:
 - Acceptance of gifts or
 - Collaboration with industry when courted to prescribe/use their products, being asked to practice beyond legal limits or personal comfort (e.g., when asked to provide medical care to friends or relative; use of "doctor" title).
- Fulfill professional commitments in a timely and responsible manner.
- Maintain appropriate professional appearance and composure.
- Recognize and address personal limitations, attributes or behaviors that might limit one's effectiveness as a physician and seek help when needed. This would include being able to describe personal responses to stress and employ appropriate stress reduction interventions as needed.
- Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, race, religion, disabilities and sexual orientation and investigate impact of those on clinical care and medical decisions.

Systems-based Practice

Goal Statement: Medical Students are expected to develop an awareness of available health care system resources and demonstrate an ability to use them appropriately to provide optimal quality patient care. Graduates from Trinity School of Medicine will be able to:

- Demonstrate the ability to work within a multidisciplinary patient care team, with an understanding of the physicians' role as team leader and the importance of ancillary staff.

School of Medicine

- Examine medical errors and quality problems using a health systems approach and describe available methods to minimize them.

PHAR 401	Pharmacology II*	3.0
CLMD 404	Introduction to Clinical and Community Medicine IV	2.0
Total		18.0

*Students must pass all Term 3 & 4 NBME exams prior to promotion to Term 5

Academic Standing

Medical students are expected to maintain a 2.30 or higher GPA. Students are in good academic standing if they meet the minimum GPA standards based on GPA hours. A student must be in good academic standing in order to graduate.

Students on academic probation, academic warning, or professionalism warning status are not considered in good academic standing.

Term 5 (Clinical Transition Term)

CLMD 406	Integrated Systems Review	6.0
CLMD 405	Introduction to Clinical and Community Medicine V	6.0
Total		12.0
Total Credit Hours		75.0

Traditional Curriculum

Traditional curriculum for Terms 1-5.

Term 1

		Credits
ANAT 301	Anatomy I	3.0
ANAT 306	Histology I	1.5
ANAT 305	Early Human Development	2.0
BCHE 306	Biochemistry*	5.0
CLMD 401	Introduction to Clinical and Community Medicine I	3.0
Total		14.5

Term 2

ANAT 302	Anatomy II*	3.0
ANAT 307	Histology II	1.5
ANAT 304	Embryology	1.0
PHYS 306	Medical Physiology*	5.0
COBS 301	Epidemiology & Biostatistics	1.0
CLMD 402	Introduction to Clinical and Community Medicine II	2.0
Total		13.5

*Students must pass all Term 1 & 2 NBME exams prior to promotion to Term 3

Term 3

NEUR 300	Neuroscience	3.0
MICR 400	Microbiology & Immunology I	3.0
PATH 400	Pathology I	6.0
PHAR 400	Pharmacology I	3.0
CLMD 403	Introduction to Clinical and Community Medicine III	2.0
Total		17.0

Term 4

COBS 300	Behavioral Sciences	2.0
MICR 401	Microbiology & Immunology II*	3.0
PATH 401	Pathology II*	8.0

Paced Program

Curriculum for Terms 1-4

TMSU-SOM's Paced Program is a successful approach to medical education for students who may benefit from a gradual immersion into the rigors of medical education. Matriculating students are encouraged to meet with their academic advisor and tutor upon arrival on campus. Current students, in consultation with their academic advisor, may also elect to decelerate curriculum requirements in order to optimize course load, to relieve scheduling conflicts or to remediate courses for which the student has received a failing grade or has withdrawn.

The Paced Program is an option for students who matriculate into Term 1 or who may choose during Term 1 to change to the Paced curriculum. This differs from students who may need to decelerate in the curriculum in order to complete requirements to move forward or who have scheduling conflicts resulting from course remediation. Students in the standard MD curriculum who decelerate by choice or by virtue of failed or withdrawn courses are not placed in the Paced curriculum once their first term grades have been recorded.

Paced Programmatic

- Once students are enrolled as Paced Program, they are required to stay on the course of study exactly.
- No deviation, dropped courses, or added courses will be allowed until they reach full integration with the regular MD class in Term 4 when general guidelines will again apply. Failure to adhere to this will result in dismissal from the program.
- Students who fail one (1) course will be allowed to retake the course the following term provided

School of Medicine

that course is not a two-part course (e.g. not Anatomy 1, Histology 1, Pathology 1, etc.).

- Students who fail two courses or more will be dismissed from the program.
- Students who pass all courses will proceed to the full MD program at Term 4.
- Before progressing into regular Term 4, students must have passed all NBME exams from Terms Paced A – Paced C.

Paced A		Credits
ANAT 301	Anatomy I	3.0
ANAT 306	Histology I	1.5
ANAT 305	Early Human Development	2.0
CLMD 401	Introduction to Clinical and Community Medicine I	3.0

Total 9.5

Paced B		Credits
ANAT 302	Anatomy II*	3.0
ANAT 307	Histology II	1.5
ANAT 304	Embryology	1.0
COBS 301	Epidemiology & Biostatistics	1.0
CLMD 402	Introduction to Clinical and Community Medicine II	2.0

Total 8.5

Paced C		Credits
BCHE 306	Biochemistry*	5.0
PHYS 306	Medical Physiology*	5.0
NEUR 300	Neuroscience	3.0
CLMD 413	Introduction to Clinical and Community Medicine III	2.0

Total 15.0

Paced D		Credits
MICR 400	Microbiology and Immunology 1	3.0
PATH 400	Pathology 1	6.0
PHAR 400	Pharmacology 1	3.0
CLMD 404	Introduction to Clinical and Community Medicine IV	2.0

Total 14.0

Following the conclusion of Paced 4, students are enrolled in the traditional curriculum beginning with Term 4.

Term 5 (Transitional Term)

At the completion of all preclinical coursework, including the successful completion of all NBME Subject Examination, students will be promoted to the Clinical Transition Term (Term 5) which is located in Warner Robins, Georgia. During this term, students will complete their CLMD 405 Introduction to Clinical and Community Medicine V and CLMD 406 Integrated System Review. The Integrated System Review Course combines an introduction to clinical diagnosis and management and the understanding of basic sciences. The passing requirement for this course includes making the minimum passing score on the CBSE. Students who fail CLMD 406 will be required to repeat the course as CLMD 407 Integrated Systems Review remediation. Failure to pass CLMD 407 remediation will result in a recommendation for dismissal from the APC.

Students may appeal for one final remediation term, which, if granted, must result in a passing CBSE score, or the dismissal becomes final. Students who transfer directly into Term 5 will receive one term only to pass both courses or be dismissed.

Independent Study

Passing all NBME examinations is a requirement for being promoted into following terms.

- Students who require remediation of NBME examinations taken in Terms 1 & 2 will be enrolled in a remediation term and placed in course IDIS 200 with additional study support. Following successful remediation of the exams, students will be promoted to Term 3 the following term. A total maximum of 3 attempts on each Term 1 & 2 NBME is allowed and must be taken within one remediation term. Failure to pass the required NBME examinations will result in dismissal.
- Students who require remediation of NBME examinations taken in Terms 3 & 4 will be enrolled in a remediation term and placed in course IDIS 300 with additional study support. Following successful remediation of the exams, students will be promoted to Term 5 the following term. A total maximum of 3 attempts on each Term 3 & 4 NBME is allowed and must be taken within one remediation term. Failure to pass the required NBME examinations will result in dismissal.

School of Medicine

- Students preparing for the USMLE Step 1 or Step 2 CK examinations will be enrolled in Independent Study (IDIS 500 and 600 respectively) for up to one term. A student may petition the Associate Dean of Student Affairs for an additional term of Independent Study in the event of extenuating circumstances. Approved extensions will not be longer than one additional academic term (15 weeks). Students desiring additional exam preparation time may request a Leave of Absence. See Leave of Absence in the TMSU section of this document.

IDIS courses will not count toward the credit required for graduation.

Clinical Clerkships - Terms 6-10

A student must meet the following criteria to be cleared for advancement to clinical clerkships:

- Qualifying score on the NBME Comprehensive Basic Science Exam (CBSE)
- Completion of BLS, ACLS, PALS, HIPAA certifications.
- 9 panel drug screen
- Criminal background screen
- Other documentation requirements specified in the Clinical Resource Course

In addition to the above requirements, students must at all times maintain Financial Clearance with the Finance Office to be scheduled for clerkship rotations (see Financial Clearance). Tuition and fees during clinical clerkships will be billed on an academic term basis in Terms 6-10. Once a student has gained Financial Clearance for an academic term, the student is eligible to be scheduled for any rotations starting within that academic term. After Term 10, students will be billed at the minimum tuition rate of \$100 for each successive academic term until graduation. Additionally, students must carry malpractice insurance through the academic term in which they complete their final elective rotation. Students may petition the finance office for a prorated credit of the malpractice insurance premium in the event their final elective rotation is completed within the first six weeks of an academic term.

Clinical clerkships (study for credit) cannot be executed under the VISA Waiver Program. Additional information may be found at VISA Waiver Program on the travel.state.gov website. Under current US law, non-US citizen students entering the US for educational purposes (non-citizens) must secure a B-1/B-2 visa. (9 FAM 402.2-5(E)(3) (U) Clerkship) Non-US citizens must consult the Visitor Visa web page of the United States Department of State (<https://travel.state.gov/content/visas/en/visit/>

[visitor.html](#)). Questions regarding visa applications should be directed to the Office of Student Services.

Core Clerkships

All core clerkship rotations are scheduled in affiliated hospitals in Baltimore, Maryland or Warner Robins, Georgia. Students will be assigned to core rotations over a 48-week core rotation cycle, normally completed within 52 calendar weeks. The core rotation curriculum is as follows:

FMED 500	Family Medicine	6 weeks
IMED 500	Internal Medicine	12 weeks
OBYG 500	Obstetrics & Gynecology	6 weeks
PEDS 500	Pediatrics	6 weeks
PSYC 500	Psychiatry	6 weeks
SURG 500	Surgery	12 weeks

Students are required to pass the NBME Subject (Shelf) Exam given at the end of each core clerkship. The Subject exams have a passing score set by the NBME, which is used by Trinity to indicate a passing score in our system.

Additionally, Trinity sets higher scores to indicate High Pass and Honors. Those are reviewed annually and adjusted if indicated. If a student fails a Shelf exam, the highest grade they may receive upon remediation is a pass. If a student fails to take the shelf exam at the end of their respective clinical rotation, the highest score they may receive upon taking the exam is a pass.

One Shelf Exam Failure

- Students who fail one shelf exam must remediate that exam at the completion of all of their core rotations.
- The student must take the repeat exam within the three weeks immediately following the completion of their core rotations.
- If the student fails a second time, they may retake the exam in three weeks from that date.
- The student may not take any elective courses until the shelf exam is successfully remediated.
- A failure of the exam a third time will result in dismissal from Trinity.

Two Shelf Exam Failures

- Students who fail two shelf exams will stop any future core rotations until they remediate both exams successfully.

School of Medicine

- Students who receive notice of their second failure after the beginning of a new core rotation will be allowed to complete that rotation and take that shelf exam before stopping cores to remediate the other two failed exams.
- Students will have up to six weeks to remediate both exams.
- If successful, the student will reenter cores at the next available opportunity.
- Students who fail a shelf exam for a second time will be allowed an opportunity to take the exam a third time.
- A maximum of six additional weeks (in addition to the original 6 weeks) will be given if both exams are failed for the second time.
- A failure of an exam a third time will result in dismissal from Trinity.

Three Shelf Exam Failures

- Students who fail three shelf exams will be dismissed from Trinity without appeal

Elective Clerkships

Upon successful completion of all core clerkships, students will be enrolled in IDIS 600 – Step 2 Prep Independent Study to allow the opportunity to prepare for USMLE Step 2 CK. During this time, students will also take the M4 OSCE exam which will allow for the assessment of Clinical Skills. Students successfully passing Step 2 CK may begin to complete the required 27 weeks of elective rotations. Managed elective programs (tracks) are available in addition to self-directed rotations in areas of interest to students. Students are reimbursed for fees paid to elective clerkship providers (application and instruction fees), subject to a cap of \$350 per rotation week.

Dress Code

Professional dress is required for all guest speakers and during ICCM testing. Appropriate attire includes white coat (short), closed-toe low-heel shoes, socks, collared long-sleeved shirts and conservative slacks. Slacks are appropriate for women. Skirts should be conservative in length.

In clinical settings, students must observe the physician dress standards at that site. The Clerkship Office can provide information on dress standards at affiliated hospitals and clinics.

For medical services where scrub suits are appropriate, these should be provided by the facility. Soiled or bloody scrubs

are to be exchanged for clean scrubs at the earliest possible opportunity. Shoe covers, masks, and head covers should be removed when leaving units that require their use and clean scrubs should be worn when returning to the site. Scrub suits are NOT to be worn outside hospital or clinic sites.

Examination Policy

General Examination Policies

The following policies shall apply for all internal and standardized examinations for TMSU-SOM students:

- Review the Testing Policy in the TMSU section of this document.
- Place all personal belongings not required for the exam (hats, backpacks, bags, phones or other electrical devices) in the designated storage area.
- Hats and sunglasses are not permitted in the exam room.
- Water in a transparent bottle is allowed in the exam room. Food may not be brought into the exam room unless the Accommodations Committee has approved a specific accommodation in advance.
- Electronic devices not required for the exam, including cell phones, recording/filming devices, calculators and watches, will not be allowed in the exam room.
- Books, reference materials, and any kind of paper will not be allowed in the exam room.
- Commencement of the exam will not be delayed due to a hardware or software problem with a laptop nor will additional time be provided to complete an exam. A student experiencing a computer difficulty during the exam should notify a proctor for instructions.
- Students arriving after the exam start time will not be allowed into the venue without approval by the Associate Dean of Student Affairs or an authorized designee. Late arriving students will not be allowed extra time to complete the exam.
- Students are closely monitored during exams and can be cited for irregular behavior, which may result in disciplinary measures up to and including dismissal.

Internal Examinations

The following specific policies shall apply for internal examinations:

- Seats will be pre-assigned and posted outside the exam area at least 30 minutes prior to the exam.
- Only registered laptops and laptop chargers will be permitted in the exam venue.
- Prior to arriving at the exam site, each student should ensure (i) the student's laptop is operating properly, (ii) the exam software application has been

downloaded and is operating properly, (iii) the exam has been downloaded, and (iv) the student is familiar with use of the exam software. Temporary loaner laptops are available in advance of the exam if a student is experiencing technical issues with a personal laptop. Any attempt to disable or tamper with the exam software security features will be considered a violation of the student code of conduct.

- Arrive at the exam site at least 30 minutes prior to the exam start time and open the exam application to the password entry screen. The password will be supplied at the exam start time.
- One blank sheet of paper will be assigned to each student. The sheet will be signed and turned in at the completion of the exam. Failure to turn in the sheet may result in loss of points.

Examination Review

After quizzes and internal examinations, the course director may conduct a review of the material on the exam. These reviews are at the discretion of the course director and may include a review of exam questions, concepts, or both. Course directors will schedule reviews during regularly scheduled classes. Students unable to attend a review may request an excused absence from the Associate Dean for Admissions and Student Affairs to be allowed a make-up review with the course director. Review opportunities are only available for up to one week after an exam.

External Examinations - NBME Subject Exams

The following specific policies shall apply for standardized examinations:

- A University ID is required for admission to the exam venue.
- For CBSE students only, snacks and/or beverages will be allowed in the designated storage area for personal belongings.
- Students should arrive at least 30 minutes prior to the exam start time to allow adequate time to prepare laptops and other materials for the exam.
- Students with an excused absence from a scheduled exam will be allowed to register for an alternate exam time.
- Students should be respectful of other students and should remain silent during the exam and enter and exit the exam venue as quietly as possible.
- Students may not use the washroom after entering the examination room until completion of the exam.
- There is a 15-minute optional break for the CBSE exam (Term 5) only. There is no allotted break for other subject exams.

TMSU-SOM Course Grading

All courses in Terms 1-5 are graded according to the TMSU Grading Policy. Additional considerations are provided below.

Common Rules of Grading

Courses may have tests, quizzes, and other assignments of varying weights toward a final grade. In such cases, final grades are calculated with weight means.

- NBME discipline exams will be weighted 20% of the final grade.

Students must complete all NBME subject exams from Term 1 and 2 prior to enrolling in courses from Term 3. Students must complete all NBME subject exams from Term 3 and 4 prior to beginning Term 5. No Term 5 courses may be taken prior to completion of all basic science courses.

NBME discipline exams in Terms 1-4 are evaluated based upon data provided by NBME as a percentage correct for each student. Passing scores vary for disciplines based upon percentile performances.

Honors grades

Grade A with Honors, A(h), is awarded for exceptional performance exceeding the criteria for an "A" grade in academic distinction. Criteria are published in the course syllabi as approved by the APC and Curriculum Committee. The grade A(h) cannot be obtained for repeat courses or through an academic appeals process.

Approval of grades

All course grades are compiled by the course director and presented to the APC meeting for approval. Following approval, they are published to the students and entered onto the student's transcript.

A student has the right to appeal a course grade to the APC on an individual basis within two weeks after the finalization of grades. After this two-week period, grades may not be appealed. All courses must be successfully passed or remediated to progress in the curriculum. Final grades, but not interim grades, can be appealed as prescribed in the TSOM Academic Appeals Policy.

Failed Course Remediation

A student who fails a single course during a term will be allowed to take a second (new) comprehensive final examination for this course during the first week of the next term. Any student failing more than one course in a given term for any medical curriculum course will not be eligible for this remediation. If the student passes the exam, the grade earned will be a C in the course.

School of Medicine

Any student who failed a course and scored less than seventh percentile on the NBME subject exam will not be eligible for remediation. If the student fails the remediation exam, the course is failed and the student must repeat the course in the next term. A student failing a repeated course will be dismissed without an opportunity to retake a final exam of the repeated course.

In courses with an NBME subject exam, except for Biochemistry, the student must pass the course and the NBME exam.

Student Situation with only one failed course	Action
Course failed, NBME failed	Retake internal remediation exam and retake NBME
Course failed, NBME passed	Retake internal remediation exam with an NBME format
Course passed, NBME failed	Retake NBME

Biochemistry (BCHE 306) requires the course and the NBME exam be passed. The following remediation actions apply for this course.

Student Situation in Biochemistry	Action
Course failed, NBME failed	Repeat course. This applies even if it is the only failed course.
Course failed, NBME passed	Retake internal remediation exam with an NBME format. This option is available if this is the only course failed. Otherwise, repeat course.
Course passed, NBME failed	Retake NBME; pass prior to taking CBSE

Students must successfully pass the exam prior to being promoted to Term 3.

Once a student receives a passing grade after repeating a course, the "F" is expunged from grade point average calculation and replaced with the passing grade. For the purposes of transcripts all courses attempted are listed.

Students are allowed a maximum of 3 attempts on any NBME subject examination. A third failure of an NBME examination will result in dismissal.

Incomplete Grade

An incomplete grade ("I") signifies that not all required coursework was completed during the term of enrollment. The "I" grade is not calculated into the term GPA or the cumulative GPA at the time it is awarded. All required coursework must be completed prior to the established deadline for completing the missing work. If course requirements are not satisfied by the deadline, an "I" grade will be changed to an "F."

During the Clinical Sciences curriculum, evaluations include an assessment not only of the student's mastery of course objectives, but also the characteristics considered desirable in a good physician.

Withdrawal

A course withdrawal occurs when students are given permission to discontinue participation in one or more courses. Approval for withdrawal from a course must be granted by the Course Director and the Associate Dean of Student Affairs. Withdrawal will not affect students' grade point averages (GPA) but will affect students' academic progress.

Any student who withdraws from any course after the first exam will receive a "W" grade in any course where *either* the final exam has not yet been completed or the term is beyond the first business day of the 9th week, whichever occurs first. If the student has completed the final exam, the course may not be dropped and the student's grade will stand on the academic record. The student will be responsible for all tuition and fees for the semester.

A student may withdraw from a course only one time without extenuating circumstances. Extenuating circumstances are those of a documented health issue or documented significant family issue. These must be approved by the Associate Dean for Student Affairs. Any student discontinuing a class previously withdrawn from will receive a grade of "F" in the course.

Grading System for Core Clerkships

Third year core clerkships are graded Pass, High Pass, and Honors.

Transcript Grade		Grade Point Value
H	Honors (cores)	4.0
HP	High Pass (cores)	3.5
PA	Pass (cores)	3.0
SP	Pass (electives)	0
F	Failure	0
I	Incomplete	0

Students earn one credit hour per rotation week completed. During each 6 and 12-week clerkship, students will earn 6 and 12 credits, respectively.

Grading Scale for NBME Subject Exams

Students scoring High Pass and Honors on an NBME subject exam will earn clerkship grades of High Pass and Honors if all other required components of the clerkship are completed on time and no deficiencies are noted on the preceptor evaluation. High Pass and Honors are only available for students who take the exam on the day scheduled.

	Fail	Pass	High Pass	Honors
Family Medicine	≤58	59	74	78
Internal Medicine	≤57	58	75	79
Obstetrics & Gynecology	≤58	59	77	81
Pediatrics	≤58	59	74	78
Psychiatry	≤61	62	77	81
Surgery	≤56	57	74	78

Any student who fails a core clerkship Shelf examination must retake the Shelf exam. Single shelf exam retakes will be scheduled at the end of the six core clerkships. Students who fail any two exams will be removed from clerkships at the next beginning clerkship date for a period of six weeks. During this period, the student will retake one exam at the end of three weeks and the second exam at the end of six weeks.

Students who fail three Shelf exams will be dismissed without appeal.

Students who fail a single shelf exam three times will be dismissed without appeal.

A student may not receive HP or Honors if they fail a Shelf exam regardless of the score on the retake.

No student may take Step 2 CK until all core clerkships are complete, including the submission of any and all assignments, evaluations and passing shelf exam scores. Students are not allowed schedule breaks between core clerkships to study for shelf exams.

Grading of Elective Clerkships

Elective clerkships are graded as Pass/Fail. However, should a Shelf exam be available in the Elective Specialty (examples: Neurology, Emergency Medicine), students may elect to take the shelf exam to earn HP or Honors. If a student fails a shelf exam in an elective specialty, the failing score will not affect the recorded grade for the elective.

United States Medical Licensing Examination (USMLE) Preparation and Testing

All Trinity School of Medicine students are required to pass the USMLE Step 1 and Step 2 CK exams.

- **USMLE Step 1** must be passed before the student may advance to clinical rotations.
- **USMLE Step 2 CK** must be passed before advancing to post core elective rotations.

Students must be certified by TMSU-SOM to register for the USMLE exams. Only active students who are in good academic standing, have passed all necessary requirements, and are financially cleared may sit for USMLE exams. Further details are contained in the Trinity Student Handbook.

A student may be restricted in the number of exam attempts based upon demonstrated progress. Trinity follows the USMLE and ECFMG policies with regard to timing and attempt limits.

Students are required to submit electronic copies of the score report to the Office of the Registrar and the Clerkship Office immediately upon receipt. All score reports, whether passing or failing, must be submitted. Failure to allow reporting of scores to Trinity will result in dismissal.

Trinity Clinical Skills Assessment – M4 OSCE

All Trinity School of Medicine students are required to pass the Trinity Clinical Skills Assessment, also known as the M4 OSCE. Upon completion of core rotations, students are eligible to register for the M4 OSCE. OSCEs are graded by a cadre of faculty and results are generally available within two weeks of completion. This assessment serves in place of USMLE Step 2 CS and satisfies the graduation requirements for Trinity and the certification requirements for ECFMG.

Qualities of Graduates

Core Competencies

Students are expected to meet the expectations of each core competency: medical knowledge, patient care, communication skills, practiced based learning, and systems-based learning described above. In addition to those areas, students are expected to attain an acceptable “level of entrustment” for the attributes noted below. Core and elective clinical evaluations will measure these attributes.

Entrustable Professional Attributes

In 2012, the AAMC published a list of Entrustable Professional Activities (EPAs) that a graduate should demonstrate when entering a residency program. Concurrent to these pilots, schools recognized the need for students to demonstrate certain levels of entrustment between pre-clinical and clinical training to validate the clinical skills training in early experiences. TMSU-SOM defined a subset of behaviors for students entering clerkships. Both the preclinical and clinical EPAs are assessed throughout the curriculum.

Preclinical EPAs - The minimum expectation is that students will be able to do the following at the beginning of clerkship training:

- Gather information from a medically stable patient with a common chief complaint.
- Integrate information gathered about a patient to construct a differential diagnosis and a preliminary plan.
- Communicate information relevant to patient care to other members of the health care team.
- Communicate information about patient care (diagnosis and care) with patient in no physical or emotional distress.
- Provide the health care team with resources to improve individual patient care or collective patient care.

During clerkship training, students will develop additional Entrustable Professional Activities in order to be ready for residency training:

- Gather a history and perform a physical exam
- Prioritize a differential diagnosis following a clinical encounter
- Recommend and interpret common diagnostic and screening tests
- Enter and discuss orders and prescriptions
- Document a clinical encounter in the patient record
- Provide an oral presentation of a clinical encounter
- Form clinical questions and retrieve evidence to advance patient care
- Give or receive a patient handover to transition care responsibility
- Collaborate as a member of an inter-professional team
- Recognize a patient requiring urgent or emergent care and initiate evaluation and management
- Obtain informed consent for tests and/or procedures
- Perform general procedures of a physician
- Identify systems failures and contribute to a culture of safety and improvement

Graduation

The degree requirements for the Doctor of Medicine degree from TMSU-SOM are set by the faculty with the concurrence of the Dean. The Registrar certifies for each graduating student that all degree requirements have been met. The faculty meet to review and approve each candidate for graduation.

Students should periodically review progress toward degree completion with the Office of the Registrar. Graduation timing is critical for the annual residency match cycle and failure to meet graduation requirement deadlines could impact readiness for residency start dates.

Honors Designation

A degree will be granted with highest honors (*distinction*) if a student's grade point average is 3.5 or greater and the student has earned all honors and high pass grades in the required clerkships. All students earning a grade point average of at least 3.5 will be granted honors (*honors*) at graduation. These designations will be recognized with honors cords. Students meeting requirements for distinction will receive both honors cords.

Only students who have completed at least 134.5 hours in the TMSU-SOM curriculum are eligible for honors designations.

Official Date of Graduation

The official date of graduation for each student will be based on the completion of all program requirements:

- Satisfactory completion of all courses and clerkships, including electives
- Satisfactory completion of required licensure exams
- Receipt of official licensure transcripts from ECFMG (request must be made by student)
- Fulfillment of all financial obligations to the school
- Review and approval by the faculty

The date of graduation will be assigned following approval by the faculty and will typically be the last business day of the month in which all graduation requirements are met. Diplomas will be submitted to ECFMG for authentication once the above are completed. Every effort will be made to accommodate students beginning residencies in July.

Course Descriptions

ANAT 301 Anatomy I

This course provides the students with lectures and comprehensive overview of the gross anatomy of the

School of Medicine

osteomioarticular system and peripheral nervous system, with consideration of relationships of various anatomical structures. The interpretation of normal medical imaging studies is also highlighted. *3 credits*

ANAT 302 Anatomy II

This course provides the students with lectures and comprehensive overview of the gross anatomy of the components of the respiratory, cardiovascular, digestive and the urogenital systems as well as the organs of vision, hearing and balance. Prerequisite – Anatomy I. *3 credits*

ANAT 304 Embryology

This course provides the students with lectures and comprehensive overview of human embryology, including features and major events of the development of specific organs and systems of humans in embryonic and fetal periods, the current understanding of some of the molecular events that guide development of the embryo. *1 credit*

ANAT 305 Early Human Development

This course provides students with lectures and comprehensive overview of the early stages of human development and genetics, including major events of the embryonic period, the current understanding of the molecular events that guide development, beginning with the formation of gametes and ending with the formation of the three-dimensional body plan. *2 credits*

ANAT 306 Histology I

This course provides students a foundation for understanding the organization of the human body. The course commences with the basic concepts of tissue preparation and microscopy, followed by the study of the cardinal features of the cell and its internal structures as revealed by light and electron microscopy. The normal histological organization of each of the four basic tissues is presented with emphasis on the relation of structure to function, as well as the structural changes underlying selected diseases. *1.5 credits*

ANAT 307 Histology II

This course provides students an understanding the organization of the microscopic and ultramicroscopic structure of normal human tissues and organs and to relate this to functional processes studied in concurrent and subsequent courses as well as to apply the knowledge to tissue structure and function to understand structural changes that underlie disease processes. Prerequisite – Histology I. *1.5 credits*

ANAT 400 Introduction to Teaching Anatomy

Students are provided an opportunity to enhance their teaching skills to students in Anatomy 1 or 2. This elective is also appropriate for students interested in teaching the anatomy portion of Neuroscience. *1 credit*

BCHE 305 Dysmorphology

This elective builds on the skills and knowledge gained during the first two years of medical training by emphasizing a stronger understanding of dysmorphology. The course will provide an introduction into dysmorphic assessment; an overview of common diagnoses, management, and treatment; and development of differential diagnoses. *1 credit*

BCHE 306 Biochemistry

This course provides students with a basic understanding of the chemical components of the human body and their functions, the molecular architecture of eukaryotic cells and organelles, the principles of bioenergetics and enzyme catalysis; the chemical nature of biological macromolecules, their three-dimensional conformation, the principles of molecular recognition, and the major metabolic pathways in health and their most frequent disorders. *5 credits*

BIOS 331 Biostatistics

This course provides students with concepts of statistics used in biomedical literature and provides the student opportunities to demonstrate the ability to interpret studies correctly using information presented in the course. *1 credit*

COBS 301 Epidemiology & Biostatistics

This course introduces the student to the practice of statistics such as displaying distributions with graphs, describing distributions with numbers, looking at data relationships, scatter plots, correlation, least-squares and multiple regression, relations in categorical data, the question of causation, sampling designs, statistical inference, estimating with confidence, tests of significance, power and inference, comparing two means, comparing several means, inference from two-way-tables, and nonparametric tests; and to the application of statistics to epidemiology in the matter of rates, incidence and prevalence, mortality and fatality, measures of risk such as the odds ratio, sensitivity and specificity, and predictive values. *1 credit*

CLMD 401 Introduction to Clinical and Community Medicine I

This course introduces students to the unique patient-physician relationship and the skills that are needed for effective clinical interactions. Students learn the skills of history taking and practice the art of communication during

School of Medicine

patient encounters. Practical opportunities to interview real patients under the supervision of clinical faculty are provided during hospital and clinic visits. An introduction to the field of public health allows students to explore the relationship between public health and clinical medicine. Medical ethics, cultural competence and patient centered care are discussed and standards of care in privacy and safety are presented leading to certification in HIPAA and OSHA-BBP standards. *3 credits*

CLMD 402 Introduction to Clinical and Community Medicine II

This course focuses on the information gathering professional activity and builds on previous skills. It introduces physical examination in the skills lab using a regional/organ system approach. Students receive practical experience with patient interviews and physical examination in the clinic setting. Lectures, videos, clinical demonstrations and practice sessions in the skills lab and at various clinical sites help to meet these objectives. Community medicine discussions include access to care and students become acquainted with national and global health systems and challenges. *2 credits*

CLMD 403 Introduction to Clinical and Community Medicine III

This course continues to provide students with foundational knowledge and skills of patient care. It also emphasizes the professional and personal attributes required in competent and caring physicians. Professional activities are developed through learning and skill-building activities including hospital and clinic rotations, small group activities, interactive presentations and lectures, hospital clinical experiences, and other active learning opportunities to enhance clinical development of students' professional activities. *2 credit*

CLMD 404 Introduction to Clinical and Community Medicine IV

This course further exposes students to the art and skills of patient care. It further strengthens the professional and personal attributes required in a competent and caring physician. Medical professionalism and ethics are emphasized. Students are provided a balanced mix of learning and skill-building opportunities comprised of hospital and clinic rotations, small group activities, and interactive presentations and lectures. The practical learning experiences help students to demonstrate their professional activities at the same time as they are evaluated. *2 credit*

CLMD 405 Introduction to Clinical and Community Medicine V

This course continues integrating clinical medicine with the basic sciences taught in Terms 1-4. Students participate in case presentations, clinical experiences, and active learning activities to enhance clinical skills demonstration throughout the term in preparation for the objective structured clinical examination (OSCE) with virtual standardized patients. *6 credits*

CLMD 406 Integrated Systems Review 1

This course is designed to provide students with a review of systems through case presentations and clinical reviews. The purpose of this course is to prepare the student for the comprehensive basic science examination at the end of the term and the USMLE Step 1 exam. With an emphasis on understanding basic sciences from the perspective of a clinician, it provides active learning activities to reinforce importance of chief complaints leading to the development of differential diagnoses. *6 credits*

CLMD 407 Integrated Systems Review 2

This course is designed as a remediation course for student who need additional guidance on the integration of clinical and basic sciences. Students attend the same course lectures and perform the same exams as the CLMD 406 students in an effort to ensure maximum understanding of clinical presentation. *6 credits*

CLMD 408 Integrated Systems Review 3

This course is designed to provide a summative review integrating clinical presentation into the understanding of basic science. Students attend the same course lectures and perform the same exams as the CLMD 406 and 407 students in an effort to ensure maximum understanding of clinical presentation. *6 credits*

COBS 300 Behavioral Science

This course introduces the bio-psycho-social model of medicine and its application to the life-cycle with emphasis on the psychological, social and cultural determinants of health. Specific topics address the comprehension and assessment of brain function as it relates to personality, behavior, cognition and sexual development. The basic tools needed for decision making in relation to legal and ethical issues are also presented. *2 credits*

IDIS 200 NBME Remediation 1

Prerequisite: Failing score on the National Board of Medical Examiners (NBME) Biochemistry, Anatomy, and/or Medical Physiology examination(s). This course is designed to provide students with an opportunity for remediation of failed NBME examinations which occurred in Terms 1 and 2.

School of Medicine

IDIS 300 NBME Remediation 2

Prerequisite: Failing score on the National Board of Medical Examiners (NBME) Microbiology, Pathology, and/or Pharmacology examination(s). This course is designed to provide students with an opportunity for remediation of failed NBME examinations which occurred in Term 4.

IDIS 301/302 Spanish for Medical Professionals

This elective course is designed for those with little to no previous experience with the Spanish language and for those who wish to improve medical Spanish skills for communication with patients. *1 credit*

IDIS 305 Introduction to Medical Specialties

This introduces students to a broad selection of medical career specialties. Developed by the American Association of Medical Colleges, this interactive program provides information on selecting a medical specialty through an evaluation worksheet to assist with guiding the student in considerations for a medical specialty early in medical school. *1 credit*

IDIS 500 Step 1 Preparation Independent Study 1

This course is designed to provide students with an opportunity for independent study in preparation for USMLE Step 1. Review materials and study support are provided. The course may be taken for up to 15 weeks. *6 credits*

IDIS 501 Step 1 Preparation Independent Study 2

This course is designed to provide students with an additional opportunity for independent study in preparation for Step 1 after an initial failure. Review materials and study support are provided. The course may be taken for up to 15 weeks. *6 credits*

IDIS 502 Step 1 Preparation Independent Study 3

This course is designed to provide students with a final opportunity for independent study in preparation for Step 1 after a second failure. Review materials and study support are provided. The course may be taken for up to 15 weeks. *6 credits*

MICR 400 Microbiology I

This course has three sections. The first section is devoted to understanding the basic concepts of immunology and dysfunctional aspects of the immune system. The second section deals with basic bacteriology, virology and mycology which include: classification, structure, growth and replication; mechanisms of gene transfer; mode of action of antimicrobial agents and microbial resistance, pathogenesis; sterilization and disinfection; and laboratory diagnostic methods. The third section deals with the description of the major human parasites; emphasis is given

on the life cycle, epidemiology, clinical diseases, diagnosis and prevention/control. *3 credits*

MICR 401 Microbiology II

Microbiology II is an organ/system approach to infectious diseases. The course begins with a brief description of the major signs and symptoms of infectious diseases that affect a particular organ/ system. For each etiologic agent, basic characteristics of the pathogen, its habit and means of transmission, virulence attributes, clinical manifestations, diagnostic methods, vaccine and aspects of the immune response to the pathogen and an indication of accepted antimicrobial or related treatment are discussed. Prerequisite - Microbiology I. *3 credits*

NEUR 300 Neuroscience

Neuroscience provides the basis for the understanding of structure and function of the human nervous system and disorders affecting it. The course is kept relevant by including discussions of appropriate clinical cases and scenarios. Students will also have the opportunity to extend their understanding of some areas and to develop skills in self-directed learning. *3 credits*

PATH 400 Pathology I

Pathology I introduces students to an understanding of the alterations in cells and tissues in response to harmful stimuli. These acquired skills of general pathology including inflammation, ischemia, infarction and necrosis will be applied to specific organ systems. *6 credits*

PATH 401 Pathology II

The course of organ system pathology is designed to help students understand the alterations in specialized organ systems and tissues that are responsible for the disorders that involve these organs. The skills of general pathology acquired in Pathology I will be applied to specific organ systems. Thus, systemic pathology is a continuation of general pathology with special emphasis on organ systems. Prerequisite – Pathology I. *8 credits*

PHAR 400 Pharmacology I

The basic principles of pharmacology will be taught in this first semester course. There will be three blocks of concentration: basic pharmacology; autonomic nervous system, renal, cardiovascular, blood, gastrointestinal and respiratory pharmacology; and pain and inflammation pharmacology. *3 credits*

PHAR 401 Pharmacology II

The basic principles of pharmacology will be continued in this second semester course. There will be three topics of concentration: 1) chemotherapy of infection and cancer, 2)

School of Medicine

pain and central nervous system pharmacology, and 3) endocrine pharmacology. The course will culminate with a comprehensive exam over both pharmacology courses. Prerequisite – Pharmacology I. *3 credits*

PHYS 306 Physiology

Medical Physiology introduces the student to the basics of normal human physiology or the study of function, activities, and processes of the human body. The course provides an in-depth introduction to a systems/organ system study of medically pertinent physiology. Teaching covers general and cell physiology, muscular, endocrine, reproductive, blood systems, cardiovascular, respiratory, renal and GI physiology. As the student is introduced to normal physiology, concepts of pathophysiology are also presented. *5 credits*

Clinical Clerkships

Students are eligible to enter clinical clerkships after passing the required NBME and USMLE exams. Students are required to take 48 weeks of clinical core clerkships. The core clerkships in medicine, surgery, pediatrics, family medicine, obstetrics and gynecology, and psychiatry are the basic areas of medical practice about which all physicians need to be knowledgeable. They are included in the curriculum of every medical school. Participation in these clerkships also provides students with an understanding of the various core specialties in medicine.

FMED 500 Family Medicine

In this clerkship, students are introduced to the principles and practice of family medicine. It is an opportunity to begin development of the knowledge, skills and attitudes required to approach a problem in the primary care setting. Students will observe how family physicians provide for ongoing medical needs of their patients within the context of the family and community setting and participate in the care of patients. *6 credits*

IMED 500 Internal Medicine

In this clerkship, students are introduced to the principles of caring for the medical patient. Students will begin to understand the general process of the application of medical therapy to patients in a wide variety of settings. The student participates as a member of the medical team and observes the role of the internist as a member of the multidisciplinary team providing patient care. *12 credits*

OBGY 500 Obstetrics and Gynecology

During this clerkship, students are introduced to the principles of caring for the OBGYN patient and participate in the various stages of evaluation and treatment of patients. Students will begin to understand the general process of the

application of OBGYN specific therapies to patients in a wide variety of settings and participate as a member of a multidisciplinary team for patient care. *6 credits*

PEDS 500 Pediatrics

In this clerkship, students acquire knowledge about the process of growth and development and about common diseases and conditions of childhood. Students work with children and families together to develop an understanding of the importance of preventive medicine and how social and environmental factors affect young people. *6 credits*

PSYC 500 Psychiatry

In this clerkship, students learn through clinical involvement by working directly with patients and being part of the treatment team. Students develop professional rapport with patients, understand the presentation of psychiatric illness, assess patient histories and mental status and develop bio-psychosocial assessment and treatment plans. *6 credits*

SURG 500 Surgery

In this clerkship, students are introduced to the principles of caring for the surgical patient. Students participate in the care of patients in the various stages of evaluation and treatment by surgeons. The student will begin to understand the general process of the application of surgical therapy to patients in a wide variety of settings as a member of the multidisciplinary team. *12 credits*

Electives

After the completion of core clerkships and passing Step 2 CK, an additional 27 weeks are spent in electives. The Senior Associate Dean of Clinical Clerkships will assist students in developing an Elective Plan which improves the student's chances for a residency in a specialty of their choice.

ANES 600 Anesthesiology

The goal of this elective clerkship is to provide the student with an understanding of the basic management of the perioperative patient and the concurrent medical conditions in the intraoperative period. The student will become familiar with commonly used anesthetic agents and techniques and the risks and complications associated with these. The student will become familiar with principles and skills involved in airway management, intravenous line insertion, and the uses of invasive and non-invasive monitoring. *4 credits*

ANES 601 Pain Management

The purpose of this elective is to prepare students to develop rational drug therapy plans for patients with pain and other symptoms in patients with and without advanced illness, including those near end-of-life, as well as develop

School of Medicine

plans for monitoring pharmacologic and interventional therapies in these patients. *4 credits*.

EMED 600 Emergency Medicine

This elective clerkship provides the student with clinical exposure, observation and training to further their understanding of emergency medicine. Students focus on the care, treatment and diagnosis of a variety of acute and subacute problems in the adult emergency medicine patient. Learning highlights how to stabilize and correctly triage critically ill patients to prepare for more advanced study of the discipline. *2-4 credits*. (Note: students may take the NBME Emergency Medicine Shelf Exam to earn Honors or High Satisfactory)

FMED 600 General Family Medicine

This elective clerkship provides students with clinical exposure, observation and training to further their understanding of family medicine. Students experience a wide variety of clinical experiences to better understand how context influences the diagnostic process and management decisions needed to address complexities, including patients with multiple concerns, various psychosocial issues, and different, sometimes conflicting behaviors that influence their health and health care. *2-4 credits*.

FMED 601 Rural Family Medicine

The elective is designed for students to train with physicians in rural and underserved areas geographically separate from a clinical campus. The focus is on general practice and provides a better understanding of what medical practice means to small communities. *2-4 credits*

GLMD 600 Global Medicine

This elective clerkship provides students an opportunity to participate in medical missions in outside of the United States during clinical training. Specific goals and learning objectives are determined by the supervising preceptor leading the trip and a formalized plan must be submitted to the Senior Associate Dean for Clinical Clerkships in advance for consideration and approval. *1-4 credits*

IDIS 301/303 Medical Spanish for Professionals

This course is designed for those with little to no previous experience with the Spanish language and for those who wish to improve medical Spanish skills for communication with patients. *1 credit*

IDIS 600 Step 2 CK Preparation Independent Study 1

This course is designed to provide students with an opportunity for independent study in preparation for USMLE Step 2 CK. Review materials and study support are

provided. The course may be taken for up to 15 weeks. *6 credits*

IDIS 601 Step 2 CK Preparation Independent Study 2

This course is designed to provide students with an additional opportunity for independent study in preparation for Step 2 CK after an initial failure. Review materials and study support are provided. The course may be taken for up to 15 weeks. *6 credits*

IDIS 602 Step 2 CK Preparation Independent Study 3

This course is designed to provide students with a final opportunity for independent study in preparation for Step 2 CK after a second failure. Review materials and study support are provided. The course may be taken for up to 15 weeks. *6 credits*

IDIS 605 Medical Specialties and Residency Preparation

This elective provides students in clerkships additional resources for the selection of medical career specialties. This elective builds on the information gained in during pre-clerkships through the interactive materials provided by the AAMC to assist students selecting a medical specialty. An evaluation worksheet and specific information on residency programs assists with guiding the student in considerations for a medical specialty in medical school. *2 credits*

IMED 600 General Internal Medicine

This elective provides students with a continuation of training from the third year and allows more active participation in care and management of patients and engagement in greater responsibility of patient care. *4 credits*.

IMED 601 Cardiology

This elective clerkship provides the student with clinical exposure, observation and training to further their understanding of cardiology. Students focus on the basic care, treatment and diagnosis of common cardiovascular illnesses in the adult patient to prepare for more advanced study of the discipline. Training emphasizes physician awareness, assessment, treatment, and acknowledgement of common cardiovascular conditions. *2-4 credits*

IMED 602 Dermatology

This elective clerkship will introduce the student to clinical dermatology and the relationship of skin disease/changes to other medical conditions. *2-4 credits*

IMED 603 Gastroenterology

In this elective clerkship, the student will learn the clinical approach to gastrointestinal and hepatobiliary diseases. Focus will be on solving clinical problems, differential

School of Medicine

diagnoses, pathophysiology, and management of patients. *2-4 credits*

IMED 604 Hematology/Oncology

This elective is designed to provide students with a thorough exposure to hematology, emphasizing basic science and clinical aspects pertinent to understanding normal function, pathophysiological derangements resulting in disease and appropriate diagnostic treatment protocols utilized in addressing diseased states. *2-4 credits*.

IMED 605 Critical Care Medicine

The purpose of this elective is to expose the student to the management of critically ill patients. The student will review relevant pathophysiology of presenting problems and therapies with an emphasis on diagnosis and management of the critically ill patient. *2-4 credits*

IMED 606 Hospitalist Medicine

The purpose of this elective is to expose the student to being responsible for all aspects of inpatient care. Students will work one-on-one with a resident or attending hospitalist physician. *2-4 credits*

IMED 607 Nephrology

This elective provides students with a broad overview of nephrology emphasizing the clinical approach to patients. Particular attention is given to differential diagnoses, appropriate use of diagnostic tests, interpretation of laboratory data, the proper use of medications in the patient with renal impairment and renal replacement therapies. *2-4 credits*

IMED 608 Neurology

This elective will familiarize the student with the clinical presentations of common neurological disorders, develop appropriate differential diagnoses of common disorders, interpret laboratory results and propose treatment and management plans for patients. Among the disorders students may experience are acute mental status changes, stroke, seizure disorders, headache, multiple sclerosis, movement disorders, diseases of muscles and nerves, and dementia. *2-4 credits*

IMED 609 Oncology

The purpose of this elective clerkship is to provide students with an overview of medical oncology. The student will gain a fundamental understanding of the diagnostic and therapeutic approach to patients with cancer. *2-4 credits*

IMED 610 Pulmonary Medicine

This elective provides a broad experience in pulmonary medicine and underscores the basic pathophysiology of diseases. It encompasses inpatient consultations,

outpatients, and critical care assessment and management. *2-4 credits*.

IMED 611 Sleep Medicine

This elective clerkship introduces the student to a multidisciplinary understanding the causes and treatment of sleep disorders by pulmonary, neurology, ENT, and dental specialists. *2-4 credits*

IMED 612 Geriatric Medicine

This elective clerkship is designed to provide additional training in the principles of aging, approach to the older patient, and systems of care, along with syndromes, psychiatric considerations and diseases and disorders of the geriatric patient. *2-4 credits*

IMED 613 Endocrinology

This elective in endocrinology and metabolism may provide students with inpatient consultation experience and or outpatient endocrinology exposure. Focus will be on pathogenesis and management of all endocrine hypothalamic, pituitary, adrenal, thyroid, parathyroid, pancreas, and gonadal diseases as well as syndromes of diabetes mellitus and hyperlipidemia. *2-4 credits*

IMED 614 Infectious Disease

The purpose of this elective is to familiarize students with the evaluation, diagnosis, and treatment of patients with both common and unusual infectious diseases. *2-4 credits*

IMED 615 Rheumatology

This elective provides an opportunity for students to better understand clinical presentations of immunologically related diseases of joints, soft tissues, autoimmune disorders, and vasculitis. *2-4 credits*

OBGY 600 General Obstetrics and Gynecology

This elective clerkship provides students with advanced experience in obstetrics and gynecology. Experiences will vary among sites but may include normal labor and delivery, high risk pregnancies, and routine prenatal care. Gynecology may include benign gynecology and/or gynecologic oncology. *2-4 credits*

OBGY 601 General Gynecology

This course provides students with clinical exposure, observation and training to further their understanding of general gynecology. Students focus on the diagnosis, treatment and management of common and uncommon gynecological conditions with a greater depth than the core rotation. During the clerkship, students will continue to improve their abilities to obtain record, analyze, and communicate clinical information. *2-4 credits*

School of Medicine

OBGY 602 General Obstetrics

This course provides students with clinical exposure, observation and training to further their understanding of general obstetrics. Students focus on the diagnosis, treatment and management of common and uncommon obstetrical conditions with a greater depth than the core rotation. During the clerkship, students will continue to improve their ability to obtain record, analyze, and communicate clinical information. *2-4 credits*

OBGY 603 Medical Genetics

This elective provides an introduction to the field of clinical genetics. Students have the opportunity to learn about a range of genetic disorders, genetic diagnostics and genetic counseling by participating in the evaluation of fetal development during pregnancy. *2-4 credits*

OBGY 604 Reproductive Endocrinology

This elective provides students opportunities to observe and assist in the management of patients with complex problems related to reproductive endocrinology and infertility. These may include hormonal imbalances, menstrual disturbances, sexual development and function problems, infertility, pregnancy loss, and menopause. *2-4 credits*

OBGY 605 Maternal Fetal Medicine

This elective provides students opportunities to observe and assist in the management of patients with complex problems related to maternal fetal medicine. These may include preterm labor with or without premature preterm rupture of membranes, multiple gestations, diabetes in pregnancy (pre-existing and gestational), hypertension in pregnancy (including chronic hypertension, gestational hypertension, mild or severe pre-eclampsia), advanced maternal age, and genetic conditions. *2-4 credits*

OBGY 700 Obstetrics and Gynecology Research

Elective clerkship experiences are designed to provide the student with a basic understanding of the selected area of interest. Students focus on the development and execution of a guided research project or participate with an existing study. Emphasis is placed on the integration of research into medical practice to prepare for more advanced study in the discipline. *4-8 weeks*

OPHT 600 Ophthalmology

This elective clerkship provides students with a comprehensive introduction to ophthalmology and how to recognize and manage common ocular diseases and emergencies. The student will gain information to manage routine ophthalmologic conditions in family medicine, internal medicine, and pediatric practice. *2-4 credits*

PATH 600 General Pathology

This elective clerkship provides students with exposure to commonly encountered cases. Students will develop a broad overview of the field and an understanding of the role of the pathologist in patient care. Students will gain a better understanding of common diagnostic tests utilized to assist in the identification of malignant, inflammatory, autoimmune, infectious and other disease states. *2-4 credits*

PATH 601 Forensic Pathology

This elective introduces forensic pathology. The student will learn the differences between hospital and forensic autopsies, natural and non-natural causes of death, and types of wound presentations associated with non-natural causes of death. *2-4 credits*

PEDS 600 General Pediatrics

This elective clerkship provides students with additional clinical exposure, observation and training to further their understanding of pediatric patients. Focus will be on inpatient and outpatient medical diagnoses, treatment plans, and management of infants and children. *2-4 credits.*

PEDS 601 Pediatric Emergency Medicine

This elective will expose the student to a broad spectrum of pediatric disease and trauma in the Emergency Medicine service. Focus will be on the chief complaint while simultaneously assessing the entire child to differentiate between "well child" and an "ill child." *2-4 credits*

PEDS 602 Neonatology

The goal of this elective is to familiarize the student with normal and abnormal adaptation of the newborn, to recognize various clinical entities peculiar to newborns (hyaline membrane disease, congenital heart disease, meconium aspiration, syndromes, genetic diseases, etc.) and their management. *2-4 credits*

PEDS 603 Developmental Pediatrics

The purpose of this elective is to reinforce previously learned skills and principles of treating children with developmental and behavioral problems. Students will receive additional training in a variety of medically directed diagnostic services for infants, children, and adolescents suspected of developmental and/or learning problems, including those at risk because of problems associated with birth. *2-4 credits*

PEDS 604 Pediatric Endocrinology

This elective will provide an overview in the diagnosis and management of pediatric endocrine disorders. Students will participate in clinical activities and attend clinical conferences. *2-4 weeks*

School of Medicine

PEDS 605 Pediatric Cardiology

This elective will expose students to a variety of children with suspected or confirmed congenital or acquired heart disease. Emphasis will be on history-taking, physical examination, and interpretation of electrocardiograms and X-rays and may include exposure to echocardiography, cardiac catheterization, and electrophysiologic studies. *4 credits.*

PEDS 606 Pediatric Neurology

This elective provides students opportunities to improve evaluation and management skills for neurological problems in infancy, childhood, and adolescents. *4 credits.*

PMNR 600 Physical Medicine and Rehabilitation

This elective clerkship introduces the student to the needs of individuals with disabilities, that may include sports injuries, acute trauma injuries, and disease. The student will focus on diagnosing and treating disorders and diseases unique to the patients. Special emphasis is placed on attaining maximum functional independence for individuals. *2-4 credits*

PSYC 600 General Psychiatry

This elective provides students with additional clinical exposure, observation and training to further understand psychiatric patients. Focus will be on inpatient and outpatient diagnoses, treatment, and management. *2-4 credits*

PSYC 601 Adult Psychiatry

This elective clerkship introduces the student to the needs of individuals with disabilities, that may include sports injuries, acute trauma injuries, and disease. The student will focus on diagnosing and treating disorders and diseases unique to the patients. Special emphasis is placed on attaining maximum functional independence for individuals. *2-4 credits*

PSYC 602 Child and Adolescent Psychiatry

This elective introduces students to commonly encountered psychiatric disorders of childhood. Students will gain additional experience interviewing children, adolescents, and families as well as enhance diagnostic skills for psychiatric illness in children and adolescents. *2-4 credits*

PSYC 603 Addiction Medicine

The purpose of this elective is to provide an understanding of patients with substance abuse disorder across a diverse spectrum of drugs, stages of use, and presentations. *2-4 credits*

RADI 600 Radiology

The purpose of this elective is to familiarize the student with the basic observation and language skills necessary for interpretation of imaging studies. The student will become familiar with appropriate methods for common medical conditions and with basic procedures and anatomy and indications for imaging studies. *2-4 credits*

SURG 600 General Surgery

This elective clerkship provides students with the opportunity to build upon skills developed in SURG xxx in year three. The student will be part of a multidisciplinary medical team caring for the surgical patients. Focus will be on the importance of evaluation of potential surgical patients, appropriate referral to surgical specialists, and effective communication with both the patient and the specialist. *4-8 credits* (Note: students may take the NBME Advanced Surgery Shelf Exam to earn Honors or High Satisfactory)

SURG 601 Orthopedic Surgery

This elective clerkship provides students with an understanding of common orthopedic disorders and injuries with regard to examination, diagnosis, and management. The student will integrate medical and surgical knowledge in the care of trauma victims and musculoskeletal injuries. *2-4 credits*

SURG 602 Urology

This elective provides students with an introduction to the multidisciplinary management of benign and malignant disease of the urogenital system.

SURG 603 Plastic and Reconstructive Surgery

This elective introduces students to various aspects of plastic surgery and may include trauma, congenital and traumatic defects of face and hand, breast reconstruction, burn reconstruction and general aspects of wound healing and infection as they relate to the skin and open wounds. *2-4 credits*

SURG 604 Trauma Surgery

This elective provides students an opportunity to be part of a trauma team. The student will be exposed to daily activities including rounds, on-calls, and educational conferences.

SURG 605 Transplant Surgery

This elective will provide the student with an overview of transplantation, transplant immunology, and organ donation. The student will function as part of an integrated team. *4 credits*

SURG 606 Pediatric Surgery

This elective will provide students with a better understanding of the current concepts of pediatric surgery as related to normal pediatric growth and development, pathophysiology, pediatric evaluation and assessment, diagnosis and clinical management. *4 credits*

Sub-Internship Opportunities

Some electives offer an opportunity to complete a sub-internship. These are designated on the transcript with a "s" following the course number. This is an acting internship, designed to allow students the opportunity to *actively* participate in the management of patients with common clinical presentations encountered in the practice of hospital-based medicine. Students typically will have the opportunity to experience a broad range of illness severity ranging from acute care upon presentation to the emergency department to life threatening processes in the intensive care unit. Patients do not have to have been previously worked up. Students will have the opportunity to improve their basic clinical skills, learn new inpatient procedures and examination techniques, and assess the effectiveness of their clinical interventions.

The student will have increasing responsibility for the care of patients during the course of this elective opportunity. In preparation for a sub-internship, students may be required to take a fourth year elective in the discipline prior to requesting a sub-internship. Student progress will be assessed in the areas of entrustable professional activities.

Minimal expectations for a sub-internship elective:

- An inpatient rotation that gives the sub-intern primary responsibility for providing care
- Be developmental, consolidating and refining the knowledge and skills acquired during core clerkships
- Ensure increased responsibility in the evaluation and management of acutely ill, hospitalized patients in directly supervised patient-care settings
- Promote development of effective inter-professional teamwork and communication skills

The sub-internship must contain rigorous expectations that define:

- Level of supervision
- Duty-hour regulations and clinical workload (typical of an intern)
- Care transitions and cross-coverage responsibilities
- Access to EHRs
- Opportunities for evidence-based, high value care practice

Research Elective Opportunities

Elective clerkship experiences are designed to provide the student with a basic understanding of the selected area of interest. Students focus on the development and execution of a guided research project or participate with an existing study. Emphasis is placed on the integration of research into medical practice to prepare for more advanced study in the discipline. 4-8 weeks

FMED 700	Family Medicine Research
CLMD 700	Clinical Medicine Research
IMED 700	Internal Medicine Research
MEDE 700	Medical Education Research
OBGY 700	Obstetrics and Gynecology Research
PEDS 700	Pediatric Research
PSYC 700	Psychiatry Research
SURG 700	Surgery Research



School of Biomedical Sciences

School of Biomedical Sciences

TMSU-SBS Mission Statement

The School of Biomedical Sciences prepares knowledgeable and culturally competent graduates for careers in healthcare.

Vision

The School of Biomedical Sciences is a leading contributor to improved global health services through excellence in the biomedical sciences.

Graduates from the degree programs may pursue one or more of the following:

- Enrollment in the Doctor of Medicine program (minimum gpa 3.0 required)
- Enrollment in graduate and doctoral programs in health care professions
- Careers in healthcare related fields

School of Biomedical Sciences

The School of Biomedical Sciences offers programs of study to candidates who have successfully completed at least 12 years of general education.

The curricula of the School will allow students to:

- Complete the minimum of 90 credit hours for promotion into the MD degree program

For students completing the premedical program and entering the Doctor of Medicine program, no degree will be awarded at the completion of the premedical program and the degree will be issued at the completion of the Doctor of Medicine program.

Transfer Policy

Students with prior college experience will have previously completed courses, with a minimum grade of C+ or 75%, reviewed by a faculty committee. Courses meeting the requirements of equivalent premedical program courses shall be transferred. No grade or grade point value for transferred courses will be entered on the TMSU transcript.

Associate of Science Degree

Students who have completed a year of post-secondary coursework may complete an Associate of Science degree. This degree requires a total of 65 hours, including transfer credits.

Admission Requirements

- A minimum of 25 credit hours, or equivalent, from an accredited institution of higher learning
- Verbal, written, and conversational proficiency in English
- Biology with lab

Bachelor of Science Degree

Students who earned at least 50 credit hours in an accredited institution of higher learning may earn a Bachelor of Science degree with strong emphasis on the biomedical sciences and communication skills. Students completing this degree with a grade point average of 3.0 will meet all prerequisites for the Doctor of Medicine program will have guaranteed admission into the Doctor of Medicine program.

Admission Requirements

- A minimum of 50 credit hours, or equivalent, from an accredited institution of higher learning
- Verbal, written, and conversational proficiency in English
- Biology with Lab and at least 1 other life science, mathematics or physics course

International Applicants

An international applicant is an applicant who is not a citizen or permanent resident of the US and requires a student visa (F-1) to study in the US. International students must meet all general requirements for admission as stated in this catalog and other admission publications.

Requirements for International Applicants

International applicants whose native language is not English must also demonstrate objective competency in English by either:

- Completing the Test of English as a Foreign Language (TOEFL) within two years of the applicant's anticipated matriculation date with a minimum score of 79 for the IBT (Internet-Based Testing) and a minimum score of 26 on the speaking component; or
- By successfully completing a minimum of 30 semester hours of coursework from a regionally accredited institution of higher learning in the US, or from a recognized Canadian institution that uses English as its primary language of instruction and documentation, not more than three years prior to

School of Biomedical Sciences

the applicant's anticipated matriculation. Of the 30 semester hours 6 hours must be in non-remedial English.

Applicants to the School of Biomedical Sciences may be required to complete English classes as part of the curriculum to augment their English and communication skills.

Non-US Citizens

As part of the application, applicants who are not US citizens or do not have permanent US resident status are required to provide the Admissions office with a copy of their USCIS documentation and visa.

Previous Attendance at Foreign Institutions

Applicants with college credit at foreign institutions, or institutions teaching in a language other than English, must submit official foreign transcripts to one of the following evaluation services as part of the admissions processes.

Those applicants applying in either of the following situations:

- a. as a new, first time student but has attended a non-US college or university for any portion of their undergraduate degree, or
- b. as a transfer student from a non-US medical school whose curriculum differs from US medical education curricular standards

must have their college/university level courses evaluated by one of the listed below.

Educational Credential Evaluators, Inc.

PO Box 514070
Milwaukee, WI 53203-3470
414-289-3400

Josef Silny and Associates

International Education Consultants
7101 SW 102 Avenue
Miami, FL 33171

World Education Services, Inc.

PO Box 745 Old Chelsea Station
New York, NY 10113-0745
212-966-6411

TMSU will consider credit only if an internal review or the evaluation service has indicated the coursework taken was similar to coursework taken at an institution that is

comparable to a regionally accredited US institution of higher learning.

Tuition and Fees

	Per Term
Tuition	
Per Term - Flat Rate, 6+ hours	\$ 3,900
Fees	
Exam / Records Fee	325
Student Activity Fee	50
Student Health Insurance*	710
Total Tuition	\$ 4,985

*Insurance required for all students physically located in St. Vincent (Vincentian nationals exempt)

Listed tuition and fees are per Term (trimester). The number of terms for the programs of study offered in the School of Biomedical Sciences will vary depending upon the number of previous course credits completed by a student prior to matriculation at TMSU and/or the necessary course prerequisites for admission to the Doctor of Medicine (MD) program.

Note: The above fees are charged at the beginning of each term. Tuition and fees are subject to annual change. Student housing charges are not shown.

Books & Instruments

The approximate costs for required textbooks are:
Per Year \$300.00

Competency-based Learning

Programs of study in the School of Biomedical Sciences emphasize competencies to enhance skills essential for a future health care professional.

Knowledge

Goal Statement: Students are expected to master fundamental information in sciences, mathematics, English, and other courses and apply these appropriately. Graduates from the School of Biomedical Sciences will be able to:

- Demonstrate content knowledge and skills in foundational courses required by biomedical professionals
- Demonstrate information literacy
- Demonstrate quantitative reasoning
- Demonstrate longitudinal learning through coursework

Critical Thinking

Goal Statement: Students are expected to become capable of critical and open-minded questioning and reasoning. Graduates from the School of Biomedical Sciences will be able to:

- Develop the skills of self-reflection and peer assessment to improve personal performance.
- Demonstrate the ability to analyze literature and written material
- Demonstrate the ability to distinguish between well-reasoned and poorly reasoned arguments

Communication Skills

Goal Statement: Students are expected to master both written and oral communication to contribute effectively as a healthcare professional. Graduates from the School of Biomedical Sciences will be able to:

- Demonstrate effective presentation skills to faculty and peers.
- Demonstrate effective listening skills
- Demonstrate effective written communication

TMSU-SBS Course Grading

All courses are graded according to the TMSU Grading Policy. Additional considerations are provided below.

Common Rules of Grading

Courses may have tests, quizzes, and other assignments of varying weights toward a final grade. In such cases, final grades are calculated with weighted means.

Grading System for TMSU-SBS

Faculty will determine the distribution of points in each course and inform students at the beginning of each term.

Approval of grades

All course grades are compiled by the course and directors before being presented to the APC meeting for approval. Following approval, they are published to the students and entered onto the student's transcript.

A student has the right to appeal a course grade on an individual basis within two weeks after the finalization of grades. After this two-week period, grades may not be appealed.

Curriculum

Non-degree, Associate of Science Degree and Bachelor of Science Degree

The specific curriculum of a student will depend upon the prior courses taken and the courses needed to fulfill

graduation requirements or the requirements to enter the doctor of medicine program.

Courses available include the following:

General Studies

BIOS 100	Medical Terminology
BIOS 101	Introduction to Biology
BIOS 150	Medical Informatics

Biological Sciences

BIOS 200/240	Research Seminar
BIOS 201	Introduction to Microbiology
BIOS 203	Epidemiology & Great Epidemics
BIOS 204	Cell & Molecular Biology
BIOS 205	Introduction to Anatomy
BIOS 206	Introduction to Psychology
BIOS 207	Nutrition in Health
BIOS 210	Introduction to Physiology
BIOS 215	Medical Ethics
BIOS 216	Introduction to Laboratory Technology
BIOS 220-222	Community Clinical Experience
BIOS 225	Introduction to Genetics
BIOS 230	Research Methods
BIOS 231	Capstone Research

Chemical Sciences

CHEM 201	Inorganic Chemistry I
CHEM 202	Inorganic Chemistry II
CHEM 210	Organic Chemistry I
CHEM 211	Organic Chemistry II
CHEM 220	Biochemistry

Mathematical Sciences

MATH 201	Mathematics I
MATH 202	Mathematics II
MATH 210	Mathematics III

Physical Sciences

PHYC 201	Physics I
PHYC 202	Physics II

English and Communication Skills

ENGL 101	English Composition I
ENGL 102	English Composition II
ENGL 201	Communication Skills I
ENGL 202	Communication Skills II

Each student completing the Bachelor of Science degree will complete a capstone research project and presentation.

Academic Standing

Undergraduate students are expected to maintain a 2.00 or higher GPA. Students are in good academic standing if they meet the minimum GPA standards based on GPA credit hours. A student must be in good academic standing in order to graduate.

Students on academic probation, academic warning, or professionalism warning status are not considered in good academic standing.

Honors Designation

In the undergraduate and graduate programs in TMSU-SBS, a degree will be granted with highest honors as shown:

Summa cum laude	3.90-4.00
Magna cum laude	3.85-3.89
Cum laude	3.80-3.84

Only students who have completed at least 60 credit hours in the TMSU-SBS curriculum are eligible for honors designations.

Advancement to the Doctor of Medicine Courses

Students may advance to the doctor of medicine level courses from the School of Biosciences as follows: Successful completion of a minimum of 90 credit hours, including transfer credits

- Successful completion of all requirements for admission to the School of Medicine
- A minimum GPA of 3.0 in TMSU-SBS courses
- Maintained the standards of ethical, moral, personal and professional conduct required of TMSU-SBS.

Course Descriptions

BIOS 100 Medical Terminology

This course provides the necessary framework to learn the basic rules and elements of medical terms. The course will focus on how to break down medical terms into their components: prefix, suffix and root. By learning the individual parts of medical terms, students will be able to understand their origins, definitions and abbreviations in addition to pronunciation and spelling. *1 credit*

BIOS 101 Introduction to Biology

This course is designed to introduce students to the fundamentals of biology. A chemical and molecular approach is used to study the structure and function of

living organisms. It also deals with the principles of evolution, diversity of life, and ecosystems. Emphasis is given to various organ systems that work together to perform coordinated functions while contributing a particular function to the body. *3 credits*

BIOS 150 Medical Informatics

This course provides a combination of computer science, systems, and communications to address computer literacy needed to effectively collect, manipulate, collaborate and publish health science information. *2 credits*

BIOS 200 Research Seminar

Research Seminar introduces students to the biomedical presentation with an emphasis on the organization and presentation of complex topics. In this course, the student utilizes skills from other courses. *2 credits* (repeatable, maximum 18 credits)

BIOS 201 Introduction to Microbiology

This course provides basic concepts of microbiology with emphasis on microbial pathogenesis and immunity. Topics include the chemical and physical nature of human microbial pathogens, aspects of medical microbiology, identification and control of pathogens, development and spread of antibiotic resistance, disease transmission and host resistance. The course also illustrates the general principles and techniques of laboratory diagnosis of infectious diseases. *3 credits*

BIOS 203 Epidemiology and Great Epidemics

This course introduces the concepts of epidemiology and focuses on the great epidemics of the world. The timelines of epidemics will be explored along with the causative factors influencing the progression of the disease and factors leading to decline of disease. *2 credits*

BIOS 204 Cell and Molecular Biology

This course provides the basic concepts of the molecular architecture of eukaryotic and prokaryotic cells and organelles, including membrane structure and dynamics. Included are how these components are used to generate and utilize energy in cells with during cell motility, division, cell cycle, adaptation, injury, and cell death. *3 credits*

BIOS 205 Introduction to Anatomy

This course is designed to provide students with an understanding of the structure, function and regulation of the organ systems of the body and physiological integration of the systems to maintain homeostasis. Course content includes study of the musculoskeletal, circulatory, respiratory, digestive, urinary, immune, reproductive, and endocrine systems. The course covers

the anatomical terminology to describe the basic structures of the human body. *3 credits*

BIOS 206 Introduction to Psychology

This course introduces the foundational theories that guide modern psychology and provides students with a conceptual framework for understanding the day to day applications of these principles. The course content includes the biology of behavior, learning, memory, cognition, motivation, emotion, personality, abnormal behavior and its therapies, social behavior and individual differences. *2.5 credits*

BIOS 207 Nutrition in Medicine

This course introduces students to nutrition through a medical perspective that will require independent study as well as small group discussions. Several topics are available for this course including studies in obesity, sports nutrition, and nutrition during pregnancy and early infancy. *2 credits (repeatable, 8 credits maximum)*

BIOS 210 Introduction to Physiology

This course provides students with an understanding of the function and regulation of the organ systems of the body and physiological integration of the systems to maintain homeostasis. Students receive a quantitative and integrated concept of sub-cellular, cellular and organ systems. *3 credits*

BIOS 215 Medical Ethics

The course gives students the opportunity to explore the world of medical concepts from both contemporary and historical perspectives. Students are provided with an apprenticeship in concept clarification, concept evaluation, and argument. They are taught the specific skills to inquire, reason, and make judgments. The history of medical ethics, major views regarding medical issues such as the conflicts between different types of benefits to patients, physician duties, or patient autonomy are discussed. *1.5 credits*

BIOS 216 Introduction to Laboratory Techniques

This course provides an introduction to clinical applications of chemistry, hematology, immunology immunochemistry (blood banking), microbiology, serology, urinalysis and miscellaneous body fluid analyses, as well as to good laboratory practice (GLP) including standardization and quality assurance. *2.5 credits*

BIOS 220-222 Community Clinical Experience

Community Clinical Experiences provide students a field experience and a greater insight into the rigors of the medical profession and its expectations for future practice through exposure to a variety of health care settings in

which they interface with providers and recipients of health care. The one-week experience takes place off campus in clinical sites and may be completed between terms. Experiences may be in community medicine, antenatal care, or emergency medicine. *2 credits (repeatable, 8 credits maximum)*

BIOS 225 Introduction to Genetics

This course introduces the student to the basic concepts of inheritance, populations, mutations, and techniques used to assess each of these. *2 credits*

BIOS 230 Research Methods

This course introduces students to the two types of research; qualitative and quantitative and their associated research methods. Students will be provided with the skills needed to carry out intensive research and systematic analysis. *3 credits*

BIOS 231 Capstone Research

Students will work with a faculty member to develop a research paper and present the work in a seminar. *5-10 credits (repeatable, 20 credits maximum)*

BIOS 240 Research Seminar

Students attend research seminars and case presentations and demonstrate a progressive understanding through analysis of presentation components and style leading to the development of a group presentation. *3 credits*

BIOS 304 Cell and Molecular Biology

This course will require an in-depth review of cell and tissue structure and function. The student will master the major signal pathways and be able to apply information to clinical case scenarios. *3 credits*

BIOS 305 Anatomy

The focus of this course is to develop a strong working knowledge of the musculoskeletal, gastrointestinal, cardiovascular, and reproductive systems using plastinated specimens and models. An emphasis will be placed on applying knowledge in clinical scenarios. *3 credits*

BIOS 310 Physiology

The focus of this course will be the physiology of the renal, cardiovascular, pulmonary, and reproductive systems. An emphasis will be placed on applying knowledge in clinical scenarios. *3 credits*

BIOS 324 Neuroscience

This course will introduce the student to the major pathways of the nervous system and the neuroanatomy of

the brain and spinal cord. An emphasis will be placed on applying knowledge in clinical scenarios. *3 credits*

BIOS 325 Immunology

This course will focus on the humoral and cell-mediated components of the immune system, including the genetics involved. Common autoimmune diseases, hypersensitivities, and immune deficiencies are presented with an emphasis on applying basic science information in clinical scenarios. *3 credits*

BIOS 326 Human Genetics

This course will expand the student's knowledge base in genetics with an emphasis on pedigree analysis, Mendelian inheritance, epigenetic inheritances, and population genetics. Common disorders in each organ system will be presented with an emphasis on the mechanisms of action. *2 credits*

BIOS 327 Introduction to Pharmacology

This course is designed to provide an overview of pharmacologic principles with an emphasis on therapeutic drug classification. For each therapeutic drug classification, basic mechanism of drug actions, side effects, routes of administration, and common indications will be reviewed. Students will become familiar with common abbreviations and vocabulary terms related to drug therapy. The course will prepare students to recognize major drugs. *(3 credits)*

BIOS 330 Research Methods

This course introduces students to the two types of research; qualitative and quantitative and their associated research methods. In addition, important molecular techniques will be presented with a focus on understanding scientific studies. *3 credits*

BIOS 331 Biostatistics

This course provides students with concepts of statistics used in biomedical literature and provides the student opportunities to demonstrate the ability to interpret studies correctly using information presented in the course. *1 credit*

BIOS 335 Research

Students will work with a faculty member to develop a research project of interest. *Variable credit 1-10 credits (repeatable, 20 credits maximum)*

BIOS 340 Thesis Seminar

Students in the Master of Science program will present an oral presentation of the research completed. *4 credits*

CHEM 201 Inorganic Chemistry I

This course provides students with the fundamental concepts of the chemical processes, enabling students to use chemical concepts in daily living and in the understanding of biochemistry. It covers matter, periodic table, writing and balancing chemical reactions, chemical composition and properties of compounds and modern atomic theory. It includes atomic structure, stoichiometry, understanding the symbols of elements and topics are developed by thoughtful integration of laboratory and problem-based instruction. *3 Credits*

CHEM 202 Inorganic Chemistry II

The course emphasizes the applications of chemistry in the field of medicine. Chemical reactions, equilibrium, acids and bases, conjugate acids and bases, thermodynamics, colligative properties of solutions, gas laws electrochemistry and topics related to biochemistry are included. This course enables the students to improve their problem-solving skills, and mathematical skills. The course structure is designed to enhance the connections between theory and practice by engaging students in sessions of integrated laboratory and lecture. *3 credits*

CHEM 210 Organic Chemistry I

This course covers basic principles of structure and nomenclature of organic compounds, both aliphatic and aromatic. It emphasizes the principles of chemical reactions of organic compounds and the synthesis or degradation of bio-molecules in human metabolism. Saturated hydrocarbons, unsaturated hydrocarbons, synthesis, properties and reactions of alcohols, identification of functional groups, hybridization of hydrocarbons, stereochemistry cis-trans isomerism and addition reactions are covered. Lab activities include the use of models for the design of hydrocarbon and isomer structures. Experiments such as purification or separation, physical characterization, reaction types, and synthesis of organic compounds are included. *3 credits*

CHEM 211 Organic Chemistry II

This course is a further study of the chemistry of carbon compounds from a functional group perspective. The course covers structure and nomenclature of specific organic compounds like thiols, aldehydes, ketones, amines, esters, carboxylic acids, carboxylic acids derivatives, benzene, phenol, Hofmann elimination reaction, Sn1, Sn2, E1 and E2 reactions. Emphasis is given on reactions, preparations, uses, and simple mechanisms and their biological application. Lab activities are focused in the detection and identification of the presence of the functional groups studied in the course in molecules of biomedical relevance as proteins, drugs, and others. *3 credits*

CHEM 220 Biochemistry

This course provides students with a basic understanding of the biomolecules involved in the molecular architecture of eukaryotic cells and organelles. The course also describes the structural and functional properties of different biomolecules (carbohydrates, proteins, and lipids), the principles of bioenergetics, concepts of enzymology, and nutritional biochemistry. *3 credits*

CHEM 320 Biochemistry

This course provides students with a comprehensive review of biochemical pathways and human disease occurring when the pathway is abnormal. *3 credits*

ENGL 101 English Composition I

This course is designed for students needing to improve their proficiency in comprehension and expression of the English language used in the US. It provides an understanding of the functions of writing to communicate effectively in writing and speaking tasks. *3 credits*

ENGL 102 English Composition II

This course extends the skills of communication and critical thinking through additional analysis of reading and writing tasks to support skills development. *3 credits*

ENGL 201 Communication Skills I

This course exposes students to the basic communication strategies such as speaking, listening, observing and memory training. *2.5 credits*

ENGL 202 Communication Skills II

This course builds on Communication Skills I and offers students practical experience in honing skills learnt in Communication Skills I so as to develop interpersonal communication competency. *2.5 credits*

MATH 201 Mathematics I

This is a one term course which provides the foundation for calculus. Trigonometry, exponential, logarithmic and polynomial functions are taught here along with the concepts of limits and continuity. This course will include critical thinking and decision-making. *3 credits*

MATH 202 Mathematics II

Calculus deals with concepts of differentiation and integration and their applications. Students will learn to differentiate first principles and from the use of the Product, Quotient, and Chain Rules. They will also nudge up against the applications of maxima and minima. In integration, they will apply the definite integral, calculate areas and volume, do mathematical modeling, and solve differential equations. *3 credits*

MATH 210 Mathematics III

This course is an introduction to statistical concepts and analytical methods as applied to data in biomedical sciences. It emphasizes the basic concepts of quantitative analysis of data, and statistical inferences. Topics include probability, frequency distributions, central tendency and dispersion; hypothesis testing, confidence intervals for means, variances and proportions; the chi-square statistics; data analysis and linear correlation. The course provides students a foundation to evaluate information critically. *3 credits*

PHYC 201 Physics I

This course is a conceptual study of units and dimensions of physical quantities, vectors and kinematics, laws of motion and its applications, work and energy, properties of matter, sound, oscillations, gravitation, fluid mechanics and thermal physics. Students perform experiments dealing with the basic laws of mechanics, vibration, circular motion, fluids, heat and thermal properties of materials. *3 credits*

PHYC 202 Physics II

This course provides basic knowledge in biophysics. It enables the students to understand the concepts of human physiology. The course includes basic principles of electricity, electromagnetism, light and optics. Modern physics consists of quantum physics, relativity, atomic physics, nuclear physics and nuclear medicine. The course is designed to increase problem-solving and analytical thinking skills. Students perform experiments based on the principles of electricity, optics and atomic physics. *3 credits*