Subject: Gross Anatomy  
Course Title: Summer Remediation in Gross Anatomy  
Start Date: 6/12/2023  
End Date: 7/17/2023  
Application Deadline & Fees: June 10, 2023 Fee: $2,200.00

Course Description: Course Description: Drexel University College of Medicine (DUCOM) offers a make-up course in Medical Gross Anatomy that is taken on the Web. The course material will be available from June 12, 2023 until July 18, 2023. There course includes approximately 30 hours of streaming video lectures with handouts, 20 web-based interactive Clinical Case Reviews, consisting of about 2 cases each. (See Technical Requirements listed below) and anatomy review videos and a large database of practice questions. A Medical School faculty member is available for questions and answers via bulletin board, telephone, or email. Online classroom sessions will be held as needed. The Course is divided into 6 sections, which follow a weekly progression that students may access at their own pace. After each section the student takes a Section Exam consisting of MCQ’s on the section content. Each Section Exam is taken through Blackboard Learn and requires a computer and use of the Respondus Lockdown Browser. A mid-course exam will be given on June 27, 2023 and the final exam on July 18, 2023. These and the points accrued from the Clinical Case Review quizzes are THE ONLY exams that will count toward the final course grade. The midcourse and final course exams must be taken under proctored conditions. More information will be made available once the course has started.

Pre-requisites: Students must have completed a Medical Gross Anatomy course as part of an accredited medical school curriculum, be in good academic standing and submit a completed application signed by their Dean of Student Affairs or comparable official.

Other Information: The link below will provide additional information about the course, a detailed syllabus and a link to the registration dashboard.  
http://drexel.edu/medicine/about/departments/neurobiology-anatomy/related-programs/summer-gross-anatomy/

Course Contact:
Subject: Microanatomy, Histology  
Course Title: Summer Remediation Course in Medical Microanatomy  
Start Date: 6/12/2023  
End Date: 7/14/2023  
Application Deadline & Fees: Application Deadline: June 9, 2023; Course fee: $2,200  

Course Description: Drexel University College of Medicine (DUCOM) offers a make-up course in Medical Microanatomy, which is administered through Blackboard Learn. The course material is available from June 12 until July 14. Testing is via a midterm and final exam, both delivered through Blackboard Learn. The course includes approximately 57 lecture hours presented as streaming video. Lecture notes can be downloaded or viewed simultaneously with the streaming video and annotated virtual slides. The Course is divided into 7 sections, which follow a weekly progression that students may access at their own pace within the limits of the midterm and final exam. After completing each section, the student takes an exam for self-assessment at home. Each Section Exam is taken through the Blackboard Learn system and requires a computer with internet access. Success in each Section Exam is required in order to progress to the next section. Section exams will not count toward the final grade but will provide feedback to the students as they progress through the course, and also serve as practice for the midterm and final exams. A medical school faculty member will be available for questions and answers via e-mail or zoom. The seven sections are as follows: 1. Introduction to Microscopy & Cell Biology 2. Epithelium, Connective Tissue & Skin 3. Muscle & Nerve, Cartilage & Bone 4. Respiratory and Endocrine Systems 5. Blood, Cardiovascular System & Lymphoid Organs 6. Digestive System 7. Urinary System, and Male & Female Reproductive Systems. 

Pre-requisites: Students must be registered in an accredited U.S. Medical or Dental School, or equivalent, and provide written approval from their appropriate Administrator (usually the Dean of Students). Students access the course and take all exams on Blackboard. 

Other Information: Details concerning technical requirements and registration can be found on our website: https://drexel.edu/medicine/about/departments/neurobiology-anatomy/related-programs/summermedical-microanatomy/ Some modular options will be available for remediation involving multidisciplinary integrated courses. Please contact us for pricing and availability. 

Course Contact: 

Haviva M. Goldman  
Professor  
Department of Neurobiology and Anatomy
Subject: Embryology  
Course Title: Summer Remediation in Medical Embryology  
Start Date: 6/12/2023  
End Date: 6/26/2023  
Application Deadline & Fees: June 10, 2023 Fee: $1,100.00

Course Description: Course Description Drexel University College of Medicine (DUCOM) offers a make-up course in Medical Embryology that is taken online. The course material will be available from June 12, 2023 until June 26, 2023. There will be approximately 15 hours of streaming video lectures with handouts, four online assignments to be graded by the instructor. Online classroom sessions will be held on an ad hoc basis. (See Technical Requirements listed below). The classroom sessions will provide students with the opportunity to ask questions, provide feedback and to interact with a faculty member and the other course registrants. The course handouts may be downloaded or viewed simultaneously with the streaming video. A Medical School faculty member is available for questions and answers via bulletin board, telephone, or email. After completion of each section of the course, the student takes a Section Exam consisting of MCQ’s on material from the section. Each Section Exam is taken through Blackboard Learn and requires a computer and use of the Respondus lockdown browser. Success in each section exam is required in order to progress to the next section of the course. The final course grade for each student will be determined by a Final Examination taken under proctored conditions. More information about proctoring will be provided once the course begins.

Pre-requisites: Student must be in good standing at an accredited medical school and submit an application signed by their student affairs dean or comparable official of the institution.

Other Information: Web site: Embryology: A detailed syllabus and a link to the Registration Dashboard is located at the link below  http://drexel.edu/medicine/about/departments/neurobiology-anatomy/related-programs/summer-medical-embryology/

Course Contact:

Dennis DePace  
Associate Professor  
Neurobiology and Anatomy  
2900 Queen Lane  
Philadelphia, PA 19129  
Phone: 215-991-8475  
Fax: 215-843-9082  
dd38@drexel.edu
Subject: Neuroscience

Course Title: Medical Neuroscience

Start Date: 6/12/2023

End Date: 7/14/2023

Application Deadline & Fees: Application Deadline: June 9, 2023; Fee: $2200

Course Description: Drexel University College of Medicine (DUCOM) offers a make-up course in Medical Neuroscience, which is administered through Blackboard LEARN. The course material will be available from June 12th until July 14th with the midterm exam held on Wednesday, June 28th and the final exam held on Friday, July 15th. There will be approximately 60 hours of streaming video in addition to web-based interactive tutorials, quizzes, brain atlas, brains slides, animations and interactive diagrams. The course manual can also be downloaded or viewed simultaneously with the streaming video. A Medical School faculty member is available for questions and answers via bulletin board, telephone, or email. The Course is divided into 6 sections, which follow a weekly progression that students may access at their own pace. After completing each section the student takes an exam for self-assessment. Each Section Exam is taken through the Blackboard LEARN system and requires a computer. Success in each Section Exam is required in order to progress to the next section. Grades will be averaged from performance on the midterm and final exam for a Satisfactory (70% and above) or Unsatisfactory (69% and below) grade. Exams will use the Respondus Lockdown Browser and be proctored by the student’s Administrator at the home institution or an approved alternate site.

Pre-requisites: Students must be registered in an accredited USA Medical or Dental School, or equivalent, and provide written approval from their appropriate Administrator (usually the Dean of Students). Students take the course at their own institution. They must also supply written assurance from their Administrator that a proctor will be supplied to administer the midterm and final exam.

Other Information: Details concerning technical requirements and registration can be found on our website: http://drexel.edu/medicine/about/departments/neurobiology-anatomy/related-programs/summer-medical-neuroscience/ Some modular options will be available for remediation involving multidisciplinary integrated courses. Please contact us for pricing and availability.

Course Contact:

Jed Shumsky, Ph.D.
Professor
Neurobiology and Anatomy
2900 Queen Lane
Philadelphia, PA 19129
Phone: 215-991-8736
Fax: 215-843-9082
js52@drexel.edu

University of Nebraska Medical Center

Subject: Gross Anatomy

Course Title: GCBA 516: Human Gross Anatomy

Start Date: 6/5/2023
End Date: 7/14/2023
Application Deadline & Fees: May 5, 2023, $50.00 non-refundable deposit required to reserve a place in the course. Full 6 credit hour course $2,496.00. Students may elect to take any combination of the subsections of the course at a prorated amount. See registration packet for details.

Course Description: The organization of the human body and the way in which anatomical relationships serve as a basis for function are studied in this course. The medical aspects of the structural and functional organization of the human body are also a focus of attention. The course will consist of daily team-based learning exercises and supervised laboratory dissection. Students are expected to do the assigned pre-reading and come to the TBL sessions prepared to discuss clinical cases and take the daily quizzes. The major learning experience occurs in the laboratory where teaching consists of small group discussions.

Pre-requisites: Offered to students who have previously taken an anatomy course in an MD, DO, PA, PT, or Graduate program

Other Information: For more information and a copy of the registration packet visit https://www.unmc.edu/genetics/education/summer-program/index.html

Course Contact:

Kim Latacha, PhD
Associate Professor & Vice Chair for Professional Education
Genetics, Cell Biology and Anatomy
986395 Nebraska Medical Center
Omaha, NE 68198-6395
Phone: 402-559-4030
Fax: klatacha@unmc.edu

Ponce Health Sciences University

Subject: Biochemistry
Course Title: Medical Biochemistry Make-Up Course
Start Date: 6/5/2023
End Date: 7/7/2023
Application Deadline & Fees: Application deadline is June 5, 2023. Fee $1,952

Course Description: General Course Structure: The Ponce Health Sciences University (PHSU) Medical Biochemistry remedial summer course is an online five-week course. The course is divided into two independent sections: Section 1 consists of the following two units (one unit to be covered per week): I. Structural Biology (structure and function relationships in proteins, membrane structure) and Enzymology; and, II. Molecular Biology (genome organization and function, gene expression and its regulation, signal transduction and cell cycle control). Section 2 consists of the following three units: I. Introduction to Metabolism & Carbohydrate Metabolism; II. Lipid Metabolism; and, III. Nitrogen compounds metabolism. Students can enroll in only one section or in both sections, depending on their needs, however the same fee of $1,952 is applicable in both cases. There will be only one enrollment
process for either or both sections, and the enrollment process is due on June 5, 2023. Course Materials: Course material includes a collection of videos corresponding to the different lectures, to be accessed for streaming through the Canvas platform (approximately 70 hours of streaming for Sections 1 and 2). Each lecture has an accompanying PDF handout available for download by enrolled students, and the class textbook is Thomas Devlin’s Textbook of Biochemistry with Clinical Correlations, 7th Edition. The course will have two in-class session meetings per unit to review material and discuss problem sets and practice questions. Students who cannot be at the PHSU campus are expected to join the in-class sessions via the Zoom platform. In addition to the in-class sessions, PHSU participating faculty will be available to answer questions and assist students in person, or remotely via Zoom, email, or telephone. Exams: The entire course, encompassing Sections 1 and 2 has a total of 4 partial exams divided as follows: One exam per unit in Section 1 for a total of two exams; In Section 2, there will be one exam for Unit I and another exam covering Units II and III. Partial exams will be administered using the ExamSoft application, and each student is responsible for installing the application on their devices, either tablets or laptops. For non-PHSU students, the Department Chair at their home institution is responsible for ensuring and certifying in writing that the student will take the exams under the strict supervision of a designated proctor. It is also a requirement for the completion of the course for all students to take an NBME customized examination covering all topics discussed in the course. Each of the two sections has an NBME examination and each student will take the NBME examination according to the sections in which the student is enrolled (both sections of only one section). The NBME exam accounts for 20% of the grade of each section. Non-PHSU students are responsible for making the arrangements for taking the NBME exam at their home institutions under the supervision of a proctor. Grade Calculation: Regardless of whether the student enrolls in one or both sections, the final grade will be calculated from the NBME Biochemistry exam(s) (20%) with the remaining 80% derived from the partial exams, each counting equally. For example, a student enrolled in only one section will have the grade calculated as follows: two partial exams for 40% of the grade each (80% total), plus 20% of the grade from the NBME exam. For students enrolled in both sections, each of the four partial exam accounts for 20% of the grade (80% total), and the remaining 20% will come from the two NBME exams (one for each section), each NBME examination accounting for 10% of the grade. A minimum final grade of 70% is required to pass the course.

Pre-requisites: Grade Calculation: Regardless of whether the student enrolls in one or both sections, the final grade will be calculated from the NBME Biochemistry exam(s) (20%) with the remaining 80% derived from the partial exams, each counting equally. For example, a student enrolled in only one section will have the grade calculated as follows: two partial exams for 40% of the grade each (80% total), plus 20% of the grade from the NBME exam. For students enrolled in both sections, each of the four partial exam accounts for 20% of the grade (80% total), and the remaining 20% will come from the two NBME exams (one for each section), each NBME examination accounting for 10% of the grade. A minimum final grade of 70% is required to pass the course.

Other Information: Technical Requirements: Students must download and install the ExamSoft application in the device they intend to use for exam taking. A high-speed internet connection is required for video streaming and Zoom sessions. Upon enrollment, students will be given access to remote learning and communication platforms (Canvas, Zoom links and invites). Computer and devices used in the course must be capable of video/audio playback. Students not on campus will need a microphone and camera for Zoom remote sessions.
Course Contact:

Pedro Santiago, PhD
Professor
Basic Sciences- Biochemistry
PO Box 7004
Ponce, PR 00732
Phone: 787-840-2575
Fax: psantiago@psm.edu

Tulane School of Medicine

Subject: Biochemistry
Course Title: Remedial Biochemistry
Start Date: 5/22/2023
End Date: 7/21/2023
Application Deadline & Fees: Tuition for one course module is $875 (either Cellular or Metabolic Biochemistry). Tuition for both course modules is $1500. Upon confirmation of tuition and completion of the application process (see below), the student will be provided a link and access to the remedial course website. The student will only have access to learning resources for the appropriate course modules.

Course Description: The course is broken into two course modules, Metabolic Biochemistry and Cellular Biochemistry. Depending on their remedial needs, students can opt to take either or both course modules. The Metabolic Biochemistry module covers six content blocks, including (1) Fundamentals and Kinetics, (2) Carbohydrate Metabolism, (3) Energy Production, (4) Lipid Metabolism, (5) Nitrogen Metabolism, and (6) Complex Disease States. The Cellular Biochemistry module covers an additional six content blocks, including 1) DNA/RNA/Proteins, (2) Glycobiology, (3) Protein Trafficking and Structural Proteins, (4) Blood, (5) Signal Transduction, and (6) Cell Cycle and Cancer. If a student only needs remediation in the Cellular Biochemistry module, some Metabolic Biochemistry Fundamentals topics are included.

Pre-requisites: Students must be registered in an accredited US Medical School, or equivalent. Students take the course modules on-line at their own institution. A letter must be supplied from the institutional Dean of Students, providing the following information: (1) written approval to take the course module(s),(2) which module(s) is(are) to be taken, (3) assurance that a passing grade in the summer remedial course is acceptable for removing the student's weaknesses or deficit, (4) that a proctor will be supplied to administer the course module exams (please provide contact information for the proctor) OR that a proctored ONLINE exam is acceptable OR proctored locally on Tulane's Downtown Campus, and (5) that students will not be required to take any simultaneous curricular course work that might interfere with the student’s success in the summer remedial course.

Other Information: (1) Application Process: The application, tuition and letter of support from the Dean of Students must all be submitted before the application is considered complete. Further instructions are supplied in the application. Please contact the course administrator (Kelly Ragland Boyd, 504-988-0395, kraglan@tulane.edu) if you have any questions. (2) Housing: N/A. (3) High Speed Internet: All lectures
are presented as streaming video, which are optimized for high bandwidth Internet connections (e.g., DSL, cable modem, T1). (4) Multimedia Computer: Since all lectures consist of both audio and video, computers must be capable of playing audio, and have speakers or headphones. The monitor must be capable of displaying a resolution of at least 1024x768 pixels. It is recommended that computers (either PC or Mac) be capable of playing Windows Media .asx and .wmv files, and have Windows Media Player 11 (or higher), Microsoft Office Word and PowerPoint, and Adobe Reader software. Remote proctoring can be agreed upon with your home institution. Contact Tulane for more information.

Course Contact:

Dr. David Franklin, PhD
Course Director
Biochemistry & Molecular Biology
1430 Tulane Avenue #8643
New Orleans, LA 70112
Phone: 15049888868
Fax: franklin@tulane.edu

West Virginia University

Subject: Microbiology + Immunology or Microbiology only
Course Title: Immunity/Infection and Disease
Start Date: 6/26/2023
End Date: 8/4/2023
Application Deadline & Fees: Application Deadline: June 16, 2023; Application fee $60; Course Fee $6,246.00. Important - Please contact Brooke Phillips for the course application link.

Course Description: This course is primarily designed for medical students who need to remediate or refresh current concepts in Medical Microbiology and Immunology. Students attend a virtual classroom of recorded lectures and interact with faculty through an online forum. Progress in this course is evaluated by online weekly examinations and performance on the NBME Microbiology + Immunology Subject Examination (if required by the student’s home institution). The NBME Subject Examination will be administered at WVU or at the student’s home institution, if institution has a NBME-certified proctor for administration of web based subject exams.

Pre-requisites: It is the prerogative of the student's home institution to accept (or not accept) course credit in fulfillment of educational requirements for the M.D. degree. Students of related professional degrees may also enroll in this course to remediate deficiencies in microbiology and immunology. Therefore, students are strongly encouraged to communicate closely with their home institution before seeking enrollment.

Other Information: Students are responsible for lodging and travel expenses to WVU for the NBME Subject Examination. If student has permission to take the NBME Subject Examination at their home institution, the exam cost is assumed by the student or home institution. Basic science subject examinations are not currently offered at Prometric Testing Centers. For those institutions that do not
require the NBME exam for successful remediation, a final block exam average will be recorded as the final overall grade.

**Course Contact:**

Brooke Phillips, BSW  
Program Specialist  
Microbiology, Immunology & Cell Biology  
64 Medical Center Drive, PO Box 9177  
Morgantown, WV 26506-9177  
Phone: 304-293-2649  
Fax:  
bphillips@hsc.wvu.edu

**Subject:** Pharmacology  
**Course Title:** Summer Medical Pharmacology  
**Start Date:** 5/22/2023  
**End Date:** 6/27/2023  
**Application Deadline & Fees:** Application deadline: 5/17/23  
Fees: University Tuition: $4,617  
College Tuition: $945  
University Fees: $684  
Online Learning Fee: $75  
Application Fee: $60  
Total: $6,381

**Course Description:** Summer Medical Pharmacology is a 9-credit, online course, designed as a summer make-up course for second-year medical students and other graduate-level health professional students. It is a comprehensive pharmacology course that covers the basic principles of drug action and the drug classes/specific drugs currently used in medical practice. Content is organized into units on foundations, chemotherapy, nervous system, immune system and hematology, cardiovascular and renal systems, respiratory system, musculoskeletal system, endocrine system, reproductive system, and gastrointestinal system. Lectures can be viewed in a self-paced format via streaming and downloadable video (Panopto/mp4) and audio (mp3). Course materials are also available in PowerPoint format. Weekly exams are given online using a secure browser and proctored via Zoom. Most medical students (MD, DO) will register for the section of the course that is graded pass-fail (PCOL 801). In this section, the NBME Subject Exam in Pharmacology (i.e., the “shelf board”) will be used as the final exam. It may be taken at the student's home institution if that institution has an NBME-certified proctor for the administration of electronic subject exams. If this is not possible, the student must take the NBME exam at WVU or another NBME-certified location. The NBME Equated Percent Correct (EPC) score will be used as 15% of the student’s final grade; the weekly exams constitute the other 85% of the final grade. To pass the course, the student’s final grade must be 75.0% or higher. Students in other health professions (e.g., podiatry, dentistry, pharmacy) often require a letter grade rather than a pass-fail course. These students should register for the section of the course that is graded on a standard 10-point letter grade scale (PCOL 770). Students in PCOL 770 will take a proctored WVU-written final in lieu of the NBME exam.

**Pre-requisites:** Status as a student in a graduate health profession (e.g., medicine, pharmacy, dentistry, podiatric medicine) who has taken pharmacology, or course director’s permission.

**Other Information:** Online registration for the course is available. Please follow the instructions under
“Registration Information” at bit.ly/summerpharm-WVU. Please contact kwoodfork@hsc.wvu.edu if you have questions.

**Course Contact:**

Karen A. Woodfork, Ph.D.  
Teaching Professor  
Physiology and Pharmacology  
PO Box 9229, West Virginia University School of Medicine  
Morgantown, WV 26506-9229  
Phone: 304-293-1997  
Fax: kwoodfork@hsc.wvu.edu

**Subject:** Physiology  
**Course Title:** PSIO 801: Summer Medical Physiology, Online  
**Start Date:** 6/12/2023  
**End Date:** 7/28/2023  
**Application Deadline & Fees:** Application deadline: 6/12/22 Tuition: $4933 ($694/cr + $75 online learning student support fee) + $75 non-refundable application fee

**Course Description:** This 7-credit, online course is designed for medical students who need to remediate Medical Physiology, or their school’s equivalent course (consistent with molecular, sub-cellular, cellular, and tissue components, organ system and whole-body function, human health, and disease). The overall goal is to provide students with the basic information they need for the development of the skills to solve therapeutic problems concerning the practice of medicine. Lectures can be viewed in a self-paced format via streaming video. Course materials are also available in PowerPoint, mp3, and text formats. Weekly exams are given online. Accommodations for the final exam (NBME Subject Exam in Physiology (allopathic medicine students), or equivalent NBOME/COMAT exam (osteopathic medicine students) are to be arranged by the student with their home institution, administration, or remediated course director. If the student is unable to arrange accommodations at their home institution, that student will be required to travel to Morgantown, WV to take the exam on-site. Positive identification is required for admission to the NBME/NBOME subject exam. The subject exam is weighted as 10% of the final course grade, calculated based on the equated percent correct score provided by the reporting body.

**Pre-requisites:** Must be enrolled in a medical program as a first- or second-year student

**Other Information:** Contact Dr. Hardy for any additional information you may need

**Course Contact:**

Steven L. Hardy, Ph.D.  
Professor  
Physiology, Pharmacology, and Toxicology
Subject: Physiology
Course Title: PSIO 760: Human Physiology
Start Date: 6/19/2023
End Date: 8/04/2023
Application Deadline & Fees: Application deadline: 6/12/22 Tuition: $4239 ($694/cr + $75 online learning student support fee) + $75 non-refundable application fee

Course Description: This 6-credit, online course is designed for physician assistant, dental, pathology assistant, or graduate students in the health sciences who need to remediate Human Physiology, or their school’s equivalent physiology course (consistent with molecular, subcellular, cellular, and tissue components, organ system and whole-body function, human health, and disease). The overall goal is to provide students with the basic information they need for understanding body systems to aid in learning the skills to solve therapeutic problems. Lectures can be viewed in a self-paced format via streaming video. Course materials are also available in PowerPoint, mp3, and text formats. Weekly exams are given online, including the final, comprehensive exam.

Pre-requisites: Must be enrolled in a PA or dental program, or as a graduate student in the health sciences

Other Information: Please contact Dr. Hardy for additional information if needed.

Course Contact:

Steven L. Hardy, Ph.D.
Professor
Physiology, Pharmacology, and Toxicology
3072A Health Science Center, North
Morgantown, WV 26506
Phone: (304) 293-1501
Fax: shardy@hsc.wvu.edu