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## Drexel University College of Medicine

**Subject:** Biochemistry

**Course Title:** Online Medical Biochemistry

**Start Date:** 6/7/2021

**End Date:** 7/19/2021

**Application Deadline & Fees:** Registration remains open until June 18, 2021. Fees for the course are \$1,300.

**Course Description:** Course Description: Drexel University College of Medicine (DUCOM) offers a makeup course in Medical Biochemistry which is taken on the Web. The course material will be available from June 7th until July 19th with the exam held on Monday, July 19th (dates are flexible upon request of the institution). Students take the exam at their home institution with an assigned proctor. There are approximately 90 hours of streaming video. The course manual may be downloaded or viewed simultaneously with the streaming video. A DUCOM medical school faculty member is available via bulletin board, telephone, or email to answer questions. The final comprehensive exam will be sent to the student's medical school for their dean to proctor. A pass is exactly 70% and above, with failing at anything below 70%.

**Pre-requisites:** Pre-requisites: Students must be registered in an accredited U.S.A. Medical School, or equivalent, and provide written approval from their dean of students. Students take July exam at their own institution. They must also supply written assurance from also their dean that a proctor will be supplied to administer the final exam.

**Other Information:**

**Course Contact:**

Joshua Stevenson  
Administrative Coordinator  
Biochemistry  
245 N 15th St., Room 11102  
Philadelphia, PA 19102  
Phone: 267.359.2642

Fax:  
[jds336@drexel.edu](mailto:jds336@drexel.edu)

**Subject:** Gross Anatomy

**Course Title:** Summer Gross Anatomy

**Start Date:** 6/14/2021

**End Date:** 7/20/2021

**Application Deadline & Fees:** Application Deadline: June 11, 2021; Fee: \$2,200

**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 10, 2019 until July 16, 2019 with the final exam held on Tuesday, July 16, 2019. There will be 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. These will provide the students the opportunity to ask questions, provide feedback and to interact with a faculty member and the other course registrants. 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 minimum passing grade of 70% on each section exam is required in order to progress to the next section of the course. There will be a Midcourse Exam and a Final Exam. 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 either at the student's home institution or at a mutually agreed upon professional proctoring service. Gross Anatomy: <http://drexel.edu/medicine/about/departments/neurobiology-anatomy/related-programs/summer-gross-anatomy/>

**Pre-requisites:** The course is open only to medical students who have completed a medical school course that included full cadaver dissection but who require a remediation of the conceptual principles of the discipline. Students must be registered in an accredited U.S.A. Medical School, or equivalent, and provide written approval from their Dean of Students. Students take the course at their own institution. They must also supply written assurance from their Dean that a proctor will be supplied to administer the mid course and final exams.

**Other Information:** Contact for Course Information: Dr. Dennis M. DePace, (215) 991-8475. Technical Requirements: 1. High Speed Internet Connection. All of the lectures in the Medical Gross Anatomy Review course are presented as streaming video, which has been optimized for high bandwidth internet connections (e.g., DSL, cable modem, T1). If you do not have a high-speed internet connection at home, you must be able to access such a connection from your medical school or elsewhere. 2. Multimedia Computer: Since all of the lectures consist of both audio and video, the computer (PC or MAC) that you use must be capable of playing audio, and must either have speakers or headphones. The monitor must be capable of displaying a minimum resolution of 1024x768 pixels (best is 1280x1024 pixels). For the online classroom sessions, either a built in or plug in microphone is required.

**Course Contact:**

Dennis DePace  
Associate Professor  
Neurobiology & Anatomy  
2900 Queen Lane  
Philadelphia, PA 19129  
Phone: 2159918475  
Fax:  
[dd38@drexel.edu](mailto:dd38@drexel.edu)

**Subject:** Microanatomy; Histology

**Course Title:** Summer Remediation Course in Medical Microanatomy

**Start Date:** 6/14/2021

**End Date:** 7/16/2021

**Application Deadline & Fees:** Register by 06/11/2021. Course Fee: \$2,200.00

**Course Description:** Drexel University College of Medicine (DUCOM) offers a make-up course in Medical Microanatomy, which is administered through Blackboard Learn. Lecture notes can be downloaded or viewed simultaneously with the streaming video. A virtual microscopy lab experience is included, based on annotated digitized glass 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 that 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 available for questions and answers via telephone or email. 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 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 exams.

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

**Course Contact:**

Haviva Goldman, Ph.D.

Professor  
Neurobiology and Anatomy  
2900 Queen Lane  
Philadelphia, PA 19129  
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**Subject:** Embryology  
**Course Title:** Summer Embryology  
**Start Date:** 6/14/2021  
**End Date:** 6/28/2021  
**Application Deadline & Fees:** Application Deadline is June 11, 2021, Course Fee is \$1100.00

**Course Description:** Course Description Drexel University College of Medicine (DUCOM) offers a make-up course in Medical Embryology that is taken on line. The course material will be available from June 8, 2020 until June 22, 2020. 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 at the student's home institution or other mutually agreed upon professional proctoring location. Embryology: <http://drexel.edu/medicine/about/departments/neurobiology-anatomy/related-programs/summer-medical-embryology/>

**Pre-requisites:** The course is open only to medical students who have completed a medical school course that included Embryology as part of the course material. This course may be taken in conjunction with our online Gross Anatomy Remediation course. Students must be registered in an accredited U.S.A. Medical School, or equivalent, and provide written approval from their Dean of Students. Students take the course at their own institution. They must also supply written assurance from their Dean that a proctor will be supplied to administer final exam.

**Other Information:** Contact for Course Information: Dr. Dennis M. DePace, (215) 991-8475  
Technical Requirements: 1. High Speed Internet Connection. All of the lectures in the Medical Gross Anatomy Review course are presented as streaming video, which has been optimized for high bandwidth internet connections (e.g., DSL, cable modem, T1). If you do not have a high-speed internet connection at home, you must be able to access such a connection from your medical school or elsewhere. 2. Multimedia Computer: Since all of the lectures consist of both

audio and video, the computer (PC or MAC) that you use must be capable of playing audio, and must either have speakers or headphones. The monitor must be capable of displaying a minimum resolution of 1024x768 pixels (best is 1280x1024 pixels). For the online classroom sessions, either a built in or plug in microphone is required. 3. Browser Check: You will use the Drexel University's Blackboard Learning System to access the course. Several browsers are supported.

**Course Contact:**

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**Subject:** Neuroscience

**Course Title:** Medical Neuroscience

**Start Date:** 6/14/2021

**End Date:** 7/16/2021

**Application Deadline & Fees:** Application Deadline: June 11, 2021; 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 14th until July 16th with the final exam held on Friday, July 16th. 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. Students will take a final comprehensive exam upon completion of the course material for a pass (70% and above)/fail (69% and below) grade. The final exam 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 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. If our course dates do not work for your school's academic calendar, please contact us to discuss what could be arranged.

**Course Contact:**

Jed Shumsky, PhD  
Professor  
Neurobiology and Anatomy  
2900 Queen Lane  
Philadelphia, PA 19129  
Phone: 2159918736  
Fax: 2158439082  
[js52@drexel.edu](mailto:js52@drexel.edu)

## Ponce Health Sciences University

**Subject:** Biochemistry

**Course Title:** Medical Biochemistry

**Start Date:** 6/7/2021

**End Date:** 7/9/2021

**Application Deadline & Fees:** Application due June 7, 2021; \$1,822 fee

**Course Description:** 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.

**Pre-requisites:** Written permission of student's dean or appropriate administrator is required. This is a remedial course, and therefore students must have completed and failed a Medical Biochemistry course in their institutions.

**Other Information:** 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 one in-class session meeting 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 during specified office hours 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 the NBME Biochemistry subject examination (SHELF), regardless of whether the student is enrolled in only one or in both sections. The SHELF exam accounts for 20% of the grade. Non-PHSU students are responsible for making the arrangements for taking the SHELF 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 SHELF exam (20%) with the remaining 80% derived from the partial exams, each counting equally. A minimum final grade of 70% is required to pass the course. 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. 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  
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Fax: 9551567  
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## Tulane School of Medicine

**Subject:** Biochemistry

**Course Title:** Remedial Biochemistry

**Start Date:** 5/24/2021

**End Date:** 7/23/2021

**Application Deadline & Fees:** Tuition for one course module is \$825 (either Cellular or Metabolic Biochemistry). Tuition for both course modules is \$1350. 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), 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](mailto: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 will be agreed upon with your home institution. Contact Tulane for more information.

**Course Contact:**

David Franklin  
Course Director  
Biochemistry & Molecular Biology  
1430 Tulane Avenue #8643  
New Orleans, LA 70112  
Phone: 15049888868  
Fax:  
[franklin@tulane.edu](mailto:franklin@tulane.edu)

## West Virginia University

**Subject:** Microbiology or Microbiology + Immunology

**Course Title:** Immunity/Infection and Disease

**Start Date:** 6/28/2021

**End Date:** 8/6/2021



**Application Deadline & Fees:** Application Deadline: June 18, 2021; Application fee \$60; Course Fee \$5,886.00. Students will register online, however, please contact Brooke Phillips for the correct application link.

**Course Description:** This course is designed for medical students and students from other programs, such a Doctor of Osteopathic Medicine, Dentistry, and Public Health to remediate or refresh microbiology and immunology concepts, as reviewed and advised by their home institutions. 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 NBME is required by the student's home institution). The NBME Subject Examination will be administered 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 or other degree programs. Therefore, students are strongly encouraged to communicate closely with their home institution before seeking enrollment in this course.

**Other Information:** 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.

### **Course Contact:**

Brooke Phillips, BA  
Program Specialist  
Microbiology, Immunology & Cell Biology  
PO Box 9177 HSN  
Morgantown, WV 26506-9177  
Phone: 304-293-2649  
Fax:  
[bphillips@hsc.wvu.edu](mailto:bphillips@hsc.wvu.edu)

**Subject:** Pharmacology

**Course Title:** Summer Medical Pharmacology

**Start Date:** 6/7/2021

**End Date:** 7/16/2021

**Application Deadline & Fees:** Application deadline: 5/28/21 Fees: see <http://bit.ly/summerpharm>

**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 covers basic principles of drug action and mechanisms of therapeutic and undesirable effects of drugs currently used in medical practice. Lectures can be viewed in a self-paced format via streaming and downloadable video (Camtasia/mp4) and audio (mp3). Course materials are also available in PowerPoint format. Weekly exams are given online, and the final exam will be taken in a proctored online situation.

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 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, for which a passing score is 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 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 <http://bit.ly/summerpharm>

### **Course Contact:**

Karen A. Woodfork, Ph.D.  
Summer Medical Pharmacology  
Physiology & Pharmacology  
PO Box 9229, Robert C Byrd Health Sciences Center, West Virginia University  
Morgantown, WV 26506-9229  
Phone: 304-293-1997  
Fax:  
[kwoodfork@hsc.wvu.edu](mailto:kwoodfork@hsc.wvu.edu)

**Subject:** Physiology

**Course Title:** Summer Medical Physiology

**Start Date:** 6/14/2021

**End Date:** 7/30/2021

**Application Deadline & Fees:** Application deadline: 6/7/21 Tuition: \$4641 + \$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, i.e., the “shelf board”) 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 subject exam. The NBME 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 as a medical student at home institution

**Other Information:** Contact Dr. Hardy for registration instructions and application link

**Course Contact:**

Steven L. Hardy, Ph.D.  
Teaching Professor  
Physiology and Pharmacology  
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