PHAS 5120 – Immunology/Hematology Module
Fall 2016

Course Number: PHAS 5120
Credit Hours: 1 Semester Credit Hour
Course Title: Immunology/Hematology Module
Course Location: HSHE 1.102
Course Dates: August 9 – September 9
Class Time(s):
- Monday 9:25 – 10:40 am
- Wednesday 9:25 – 10:40 am
- Friday 9:00 – 12:00 pm

Required Texts:
The following textbooks are the major references but there will be others for assigned reading. Be sure to read your announcements. You will be able to obtain them through the UTRGV Library online. Once in the library website site click on “Articles & Databases” at the top left corner and then click on “AccessMedicine”. You will have to login using your student user name and password.

- Papadakis, CURRENT Medical Diagnosis and Treatment 2016, 55th Edition
  Available at: http://accessmedicine.mhmedical.com/content.aspx?bookid=1585&sectionid=97190572


Instructor & Contact Information:

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Office Location: HSHE 2.142
Email address: Bassent.abdelbary@utrgv.edu
Phone contact: (956) 665-2298

All course correspondence will be through Blackboard course messages.
Course Description:

PHAS 5120: Immunology/Hematology Module. This course covers clinical applications of both the immune system and the hematological system. Oncology as it relates to the hematological system is also covered. Emphasis is given on how to approach a patient with a known or suspected immune and/or hematologic disease.

Prerequisite: Admission into the Physician Assistant Studies Program.

Course Grading:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 – 100</td>
</tr>
<tr>
<td>B</td>
<td>80 - &lt;90</td>
</tr>
<tr>
<td>C</td>
<td>70 - &lt;80</td>
</tr>
<tr>
<td>F</td>
<td>&lt;70</td>
</tr>
</tbody>
</table>

Physician Assistant Core Competencies:

This course will prepare the student to meet certain PA competencies. The PHAS 5120 course outcomes and learning objectives relate to the Competencies for the Physician Assistant Profession (2012) as follows:

<table>
<thead>
<tr>
<th>Core Competencies for the PA Profession</th>
<th>Specific Competencies Addressed in [Immunology/Hematology]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Knowledge</td>
<td>• Competency 1 = evidence-based medicine</td>
</tr>
<tr>
<td></td>
<td>• Competency 2 = scientific principles related to patient care</td>
</tr>
<tr>
<td></td>
<td>• Competency 3 = etiologies, risk factors, underlying pathologic process, and epidemiology for medical conditions</td>
</tr>
<tr>
<td></td>
<td>• Competency 4 = signs and symptoms of medical and surgical conditions</td>
</tr>
<tr>
<td></td>
<td>• Competency 5 = appropriate diagnostic studies</td>
</tr>
<tr>
<td></td>
<td>• Competency 6 = management of general medical and surgical conditions to include pharmacologic and other treatment modalities</td>
</tr>
<tr>
<td>Area</td>
<td>Competency Details</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Competency 7</td>
<td>interventions for prevention of disease and health promotion/maintenance</td>
</tr>
<tr>
<td>Competency 8</td>
<td>screening methods to detect conditions in an asymptomatic individual</td>
</tr>
<tr>
<td>Competency 9</td>
<td>history and physical findings and diagnostic studies to formulate differential diagnoses</td>
</tr>
<tr>
<td>Interpersonal &amp; Communication Skills</td>
<td>N/A</td>
</tr>
<tr>
<td>Patient Care</td>
<td>Competency 3 = obtain essential and accurate information about their patients</td>
</tr>
<tr>
<td></td>
<td>Competency 4 = make decisions about diagnostic and therapeutic interventions based on patient information and preferences, current scientific evidence, and informed clinical judgment</td>
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<tr>
<td></td>
<td>Competency 5 = develop and implement patient management plans</td>
</tr>
<tr>
<td>Professionalism</td>
<td>N/A</td>
</tr>
<tr>
<td>Practice-Based Learning &amp; Improvement</td>
<td>Competency 4 = utilize information technology to manage information, access medical information, and support their own education</td>
</tr>
<tr>
<td>Systems-Based Practice</td>
<td>Competency 3 = practice cost-effective health care and resource allocation that does not compromise quality of care</td>
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</tbody>
</table>
**Students with Disabilities:**

If you have a documented disability (physical, psychological, learning, or other disability which affects your academic performance) and would like to receive academic accommodations, please inform your instructor and contact Student Accessibility Services to schedule an appointment to initiate services. It is recommended that you schedule an appointment with Student Accessibility Services before classes start. However, accommodations can be provided at any time. **Brownsville Campus:** Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at accessibility@utrgv.edu. **Edinburg Campus:** Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at accessibility@utrgv.edu.

**Learning and Assessment Activities:**

All course components must be completed. Students who do not complete all components of the course will not be allowed to take the written module examination.

**Lectures:**

Lectures are provided both before and during class time. They are used to convey critical information and background regarding the subject matter. They are intended as a supplement to the information already provided in the required textbook(s). Lectures are delivered utilizing student-centered techniques to promote active learning. Instructors will utilize flipped classroom techniques, mini-lectures, and case-based learning to deliver content.

**Written Module Examination:**

There is only one comprehensive examination for this course. It is worth 100% of the overall grade. The exam consists of multiple choice. Two minutes per question will be allotted on the examination. Please refer to the FYI Handbook for testing failure policies. Written examination will be delivered through the SofTest-M app on Apple iPad unless otherwise specified.

**Mandatory Remediation Policy:**

Remediation of course material is required for all scores < 80% on the written module examination. The Mandatory Remediation Policy is attached for your review. An Academic Remediation Referral will be created for any student needing to remediate a module. Please consult the FYI for further policy regarding failure of courses in the Physician Assistant Department.
Retesting Policy:

The goal of the retesting policy is to help the student show competency and master the material. Students will only be allowed one retesting opportunity per semester for 1-credit hour modular courses. After successful retesting, the examination score may be adjusted to a maximum of 70%. Please consult the FYI for further policy regarding failure of courses in the Physician Assistant Department.

Individual Readiness Assurance Test (IRAT):

IRATs are designed to ensure students are adequately preparing for participation in all in-class activities like case-based learning and problem-based learning. IRATs will be delivered during class using SofTest-M app on Apple iPad unless otherwise specified. Although you must participate by taking the IRATs in class, they will not be graded. The IRATs should be used to benchmark your progress. They are also useful to the instructor as a gauge for student comprehension and mastery. Individuals who repeatedly score low on IRATs may need to meet individually with the course instructor and/or faculty advisor in order to direct learning to achieve success.

Group Readiness Assurance Test (GRAT):

GRATs are designed to develop critical thinking skills. As a group activity, team-based learning techniques will be key to successful completion of each assignment. Students must work in their teams in order to work through the assigned case study. GRATs are designed to be entirely completed during class time. Although you must participate by working through the GRATs in class, they will not be graded. GRATs should be used to develop your critical thinking skills with the help of others. Students noted to be absent, not participating, and/or overly combative may be asked to meet individually with the course instructor and/or faculty advisor in order to direct learning to achieve success.

Course Outcomes:

1. Demonstrate Knowledge and identify the associated signs and symptoms of the common medical conditions in the area of Immunology/Hematology.
2. Utilize and interpret diagnostics and lab findings in the area of Immunology/Hematology related issues and problems.
3. Assess and develop a management plan based on the latest options in Immunology/Hematology management and therapy.
4. Appropriately educate patients on all aspects of prescribed treatments and prevention measures associated with the common medical conditions encountered in the area of Immunology/Hematology.
5. Apply critical thinking skills to solving in depth case scenarios on an individual basis and in groups.

Learning Objectives:

At the end of this Immunology/Hematology module, the student will be able to:

- List the major Immunology/Hematology problems. (Course outcome 1) (Competency - Medical Knowledge 1-3)
- Discuss the etiologies of Immunology/Hematology disorders and their most common clinical manifestations. (Course outcomes 1,4-5) (Competency Medical Knowledge 1-4)
- Review the clinical and diagnostic features of Immunology/Hematology disorders. (Course outcomes 1-5) (Competency Medical Knowledge 4-9, Patient Care 4)
- Accurately interpret appropriate laboratory results of patients with Immunology/Hematology and formulate diagnosis based on these results and clinical findings. (Course outcomes 1,2, 5) (Competency Medical knowledge 1,5,9, Patient care 4)
- Organize the indications and limitations of diagnostic labs, tests, scans, and radiologic procedures for Immunology/Hematology. (Course outcome 1,2,5) (Competency Medical knowledge 1,5,6,8, Patient care 4,5, Practice-based Learning and Improvement 4)

<table>
<thead>
<tr>
<th>Immunology/Hematology Module Plan</th>
<th>Immunology</th>
<th>Hematology</th>
</tr>
</thead>
</table>
| Monday August 29th, 2016          | • Introduction to immunology  
                                   | • Immune deficiency disease  
                                   | • Autoimmune reactions         |
| Wednesday August 31st, 2016       | • Anaphylaxis  
                                   | • Allergic rhinitis  
                                   | • Atopic dermatitis  
                                   | • Asthma | IRAT |
| Friday September 2nd, 2016        | • Anemias | IRAT/GRAT  |
| Wednesday September 7th, 216      | • Coagulation disorders |            |
| Friday September 9th, 2016        | • Leukemia  
                                   | • Lymphoma  
                                   | • Multiple myeloma | IRAT/GRAT |

*Module Exam: Monday September 12th, 2016

**For detailed topics, refer to NCCPA topic list posted on Blackboard
5120 Immunology/Hematology Module Objectives:

08/29/16
- Introduction to immunology
- Immune deficiency disease
- Hypersensitivity reactions

Reading Assignment: *Harrison’s Principles of Internal Medicine*; chapters 372e and 373e (for review purposes only), chapter 375e


Objectives:

1. Discuss the clinical assessment and diagnostic evaluation of the patient with impaired immune response. (Course outcomes 1,2,5) (Competency Medical Knowledge 4-9, Patient care 3,4)
2. Discuss the 4 types of immunological hypersensitivity responses and give examples. (Course outcomes 1-4) (Competency Medical knowledge 1,2,4,6,8,9, Patient care 4)
3. Identify the treatment options for patients with immunological hypersensitivity responses. (Course outcomes 1,3,4) (Competency Medical knowledge 6,7, Patient care 4,5, Systems-Based Practice 3)
4. Compare and contrast immunological hypersensitivity responses in clinical case scenarios. (Course outcomes 1-5) (Course competency Medical knowledge 1-9, Patient care 3-5, Practice-Based Learning 4)

08/31/16
- Anaphylaxis
- Allergic rhinitis
- Atopic dermatitis
- Asthma

Reading Assignment: *Harrison’s Principles of Internal Medicine*; chapter 376

Objectives:

1. Describe the various adult and pediatric immunologic conditions and how to approach each of them. (Course outcomes 1,4) (Competency Medical Knowledge 1-9, Patient Care 3-5)
2. Discuss the clinical assessment and diagnostic evaluation of the patient with immunologic condition. (Course outcomes 1,2,5) (Competency Medical Knowledge 4-9, Patient care 3, 4)
3. Differentiate between urticaria, atopy, angioedema and anaphylaxis. (Course outcomes 1,2,5) (Competency Medical Knowledge 4-9, Patient care 3,4)
4. Identify the treatment options for patients with immunologic conditions/ reactions. (Course outcomes 1,3,4) (Competency Medical knowledge 6,7, Patient care 4,5, Systems-Based Practice 3)
5. Compare and contrast immunologic conditions in clinical case scenarios. (Course outcomes 1-4) (Course competency Medical knowledge 1-9, Patient care 3-5, Practice-Based Learning 4)

Reading Assignment: Harrison’s Principles of Internal Medicine; chapters 126-130 and/or Current chapter 13.

Objectives:

1. Describe the different etiologies of anemias and their clinical presentation. (Course outcomes 1,5) (Competency Medical Knowledge 1-9, Patient Care 3-5)
2. Discuss the clinical assessment and diagnostic evaluation of the patient with various forms of anemia. (Course outcomes 1,2,4) (Competency Medical Knowledge 4-9, Patient care 3,4)
3. Differentiate between acute, chronic and refractory anemia. (Course outcomes 1-5) (Competency Medical knowledge 1-9, Patient care 4)
4. Identify treatment options and prognosis for patients with anemia. (Course outcomes 1,3,4) (Competency Medical knowledge 6,7, Patient care 4,5, Systems-Based Practice 3)
5. Compare and contrast various types of anemia in clinical case scenarios. (Course outcomes 1-4) (Course competency Medical knowledge 1-9, Patient care 3-5, Practice-Based Learning 4)

Reading Assignment: Harrison’s Principles of Internal Medicine; chapters 140-141 and/or Current chapter 14.

Objectives:
1. Describe the various coagulation disorders and how to approach each of them. (Course outcomes 1,4) (Competency Medical Knowledge 1-9, Patient Care 3-5)
2. Discuss the clinical assessment and diagnostic evaluation of the patient with coagulation disorders. (Course outcomes 1,2,4) (Competency Medical Knowledge 4-9, Patient care 3, 4)
3. Identify the treatment options for patients with coagulation disorders. (Course outcomes 1,3,4) (Competency Medical knowledge 6,7, Patient care 4,5, Systems-Based Practice 3)
4. Compare and contrast various coagulation disorders in clinical case scenarios. (Course outcomes 1-5) (Course competency Medical knowledge 1-9, Patient care 3-5, Practice-Based Learning 4)

Reading Assignment: Harrison’s Principles of Internal Medicine; chapters 131-137 and /or Current chapter 13.

Objectives:

1. Describe the various hematologic malignant conditions and how to approach each of them. (Course outcomes 1,4) (Competency Medical Knowledge 1-9, Patient Care 3-5)
2. Discuss the clinical assessment and diagnostic evaluation of hematologic malignant conditions. (Course outcomes 1,2,4) (Competency Medical Knowledge 4-9, Patient care 3, 4)
3. Identify the treatment options for hematologic malignant conditions. (Course outcomes 1,3,4) (Competency Medical knowledge 6,7, Patient care 4,5, Systems-Based Practice 3)
4. Compare and contrast various hematologic malignant conditions in clinical case scenarios. (Course outcomes 1-4) (Course competency Medical knowledge 1-9, Patient care 3-5, Practice-Based Learning 4)

Mandatory Course Evaluation Period:

Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email
with further instructions. Students who complete their evaluations will have priority access to their grades. Online evaluations will be available:

Oct 5 – Oct 12 for Module 1 courses  
Dec 1 – Dec 7 for Module 2 courses  
Nov 18 – Dec 8 for full fall semester courses

**Attendance:**

Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV’s attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations. Consult the Physician Assistant Department For Your Information (FYI) manual for more specific details.

**Scholastic Integrity:**

As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

**Plagiarism:**

Specifically, written plagiarized work, defined as submitting as your own work that which contains direct or paraphrased quotes from another source, cannot be used in written assignments. Assignments must reflect the individual’s own work. Any violation of the scholastic integrity pledge will result in failure of the course and disciplinary actions deemed necessary and appropriate by the administration. Plagiarism of any kind will also result in a failing grade for the course. Safe Assign software will be used to detect plagiarism.
**Sexual Harassment, Discrimination, and Violence:**

In accordance with UT System regulations, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at [www.utrgv.edu/equity](http://www.utrgv.edu/equity), including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free from sexual misconduct and discrimination.

**Appendix:**

**Academic Remediation Policy**

The purpose of this remediation policy is to assure that students have achieved competency in the material as described in the objectives of each course in the curriculum. Remediation is required for all didactic courses and labs.

1. The Academic Remediation Referral process must be started as soon as possible after the examination grade has been posted. Failure of the student to participate in the Academic Remediation Referral process will require the course faculty to generate the Academic Remediation Referral form and indicate that the student failed to participate in the Academic Remediation Referral process. Failure of the student to participate in the Academic Remediation Referral process may result in course failure.

2. Academic Remediation Referral is required for:

   a. Any student scoring <80% on any examination or lab practical or course work.

   b. Any student that is determined by the course faculty to be at risk of failing any course.

3. The course faculty will review, sign, and date the Academic Remediation Referral form with the student describing the remediation plan and have the student sign and date the form. The department will keep a copy of the completed Academic Remediation Referral form. The student will be given a copy of the Academic Remediation Referral form.

4. The Academic Remediation Referral form will outline a General Action Plan. Actions listed in the General Action Plan must be completed by dates identified by the course faculty. This General Action Plan may include one or more of the following:

   a. Individual review of failed examination with course instructor/module coordinator.

   b. Attendance at group tutoring sessions.
c. Additional assignments to enhance comprehension of material.

d. Referral for additional study/organizational/test-taking skills offered at UTRGV outside of the department.

e. Referral to campus assistance programs (e.g.: Student Health Services, Counseling and Psychological Services, etc.).

f. Review of test-taking skills, organizational skills, and time management skills.

g. Additional factors identified through discussion with the student.

h. Retesting may be offered, but not required. Please see the Academic Retesting Policy below.

5. The Academic Remediation Referral form is a formal course requirement. Failure of the student to complete the remediation process and to complete the Academic Remediation Referral form may result in course failure.

6. Students requiring remediation will be referred to the Professionalism and Promotions Committee.

**Academic Retesting Policy**

Not all courses offer retesting. (See individual course syllabus.) For the courses that do offer retesting, the following policy will apply:

1. The goal of the retesting policy is to help the student show competency and master the material.

2. Retesting eligibility: Students are allowed to retest if they have completed the Academic Remediation Referral process in its entirety, including the General Action Plan described in the above section.

3. Limitations on retesting: If retesting is offered, (see individual course syllabus) the following limitations apply. Students will be allowed only one retesting opportunity per course per semester with the exception of 1-credit hour courses. Students will only be allowed one retesting opportunity per semester for 1-credit hour modular courses and for 1-credit hour summer courses.

4. Change in the examination grade: After successful retesting, the examination score may be adjusted to a maximum of 70%.

5. Timeline for retesting: Except for unavoidable unanticipated absences, retest examinations should be administered by the course faculty before the beginning of the next course or modular examination.
6. Retesting will not include final examinations.

7. Retesting content/format: The content and format of the retest examination will be at the discretion of the course instructor.