

## Cover Sheet: Request 10706

### PHA 5783C Patient Care 3: Introduction to Cardiovascular & Pulmonary Diseases

#### Info

Process	Course New Ugrad/Pro
Status	Pending
Submitter	Beck,Diane Elizabeth beck@cop.ufl.edu
Created	1/29/2016 2:57:40 AM
Updated	2/12/2016 12:50:38 AM
Description	Third of an eight course sequence that prepares the student to provide patient-centered care. This course also prepares the student to be a collaborative team member since learning involves teamwork. This course focuses on providing patient-centered care to patients who have cardiovascular and pulmonary disorders.

#### Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	COP - Interdisciplinary Studies	Whalen, Karen		1/29/2016
Deleted PHA 5783C Pt Care 3_01-24-16 deb.docx					1/29/2016
College	Approved	COP - College of Pharmacy	Beck, Diane Elizabeth		1/29/2016
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			1/29/2016
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

# Course|New for request 10706

## Info

**Request:** PHA 5783C Patient Care 3: Introduction to Cardiovascular & Pulmonary Diseases

**Submitter:** Beck,Diane Elizabeth beck@cop.ufl.edu

**Created:** 1/29/2016 2:57:40 AM

**Form version:** 1

## Responses

### Recommended Prefix

*Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, in rare cases SCNS will assign a different prefix.*

Response:

PHA

### Course Level

*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).*

Response:

5

### Number

*Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.*

Response:

783

### Lab Code

*Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).*

Response:

C

### Course Title

*Enter the title of the course as it should appear in the Academic Catalog.*

Response:

Patient Care 3: Introduction to Cardiovascular & Pulmonary Diseases

**Transcript Title**

*Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 21 characters (including spaces and punctuation).*

Response:

Pt Care 3: CV & Pulm

**Effective Term**

*Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.*

Response:

Fall

**Effective Year**

*Select the requested year that the course will first be offered. See preceding item for further information.*

Response:

2016

**Rotating Topic?**

*Select "Yes" if the course will have rotating (varying) topics in different terms. For rotating topics courses, the course title in the Schedule of Courses and the transcript can vary with the topic.*

Response:

No

**Amount of Credit**

*Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.*

Response:

6

**Repeatable Credit?**

*Select "Yes" if the course may be repeated for credit. Some courses, such as independent study courses, will have rotating (variable) topics. Students may be allowed to repeat these courses provided the content is different.*

Response:  
No

### **S/U Only?**

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:  
Yes

### **Contact Type**

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:  
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

### **Degree Type**

Select the type of degree program for which this course is intended.

Response:  
Professional

### **Weekly Contact Hours**

Indicate the number of hours faculty will have contact with students each week on average throughout the duration of the course.

Response:  
15

### **Category of Instruction**

*Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.*

Response:  
Intermediate

- 1000 and 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate

*4000/5000 and 4000/6000 levels = Joint undergraduate/graduate (these must be approved by the UCC and the Graduate Council)*

### **Delivery Method(s)**

*Indicate all platforms through which the course is currently planned to be delivered.*

Response:  
On-Campus

### **Course Description**

*Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 50 words or fewer. See course description guidelines.*

Response:  
Third of an eight course sequence that prepares the student to provide patient-centered care. This courses also prepares the student to be a collaborative team member since learning involves teamwork. This course focuses on providing patient-centered care to patients who have a cardiovascular and pulmonary disorders.

### **Prerequisites**

*Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.*

Response:  
PHA 5781 & PHA 5755 & PHA 5782

*Completing Prerequisites on UCC forms:*

- Use "&" and "or" to conjoin multiple requirements; do not used commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the

course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.

- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.

Example: A grade of C in HSC 3502, passing grades in HSC 3057 or HSC 4558, and major/minor in PPHP should be written as follows:  
HSC 3502(C) & (HSC 3057 or HSC 4558) & (HP college or (HS or CMS or DSC or HP or RS minor))

### **Co-requisites**

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system.

Response:  
PHA 5163L

### **Rationale and Placement in Curriculum**

Explain the rationale for offering the course and its place in the curriculum.

Response:  
This course is in the second year of the curriculum since it requires the foundational concepts learned in year 1.

This course prepares students for the Patient Care 8 course in year that focuses on Complex Patients.

### **Course Objectives**

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:  
Upon completion of this course, the student will be able to provide patient-centered care for patients with one or more of the following disorders or pharmacotherapy needs:

- Dyslipidemia
- Hypertension
- Anticoagulation
- Ischemic Heart Disease—Stable Angina Pectoris
- Acute Coronary Syndrome
- Chronic Heart Failure
- Arrhythmias—Atrial Fibrillation
- Asthma
- COPD
- Complicated Pneumonias

1. Specifically, given a patient with one or more of the above disorders/pharmacotherapy needs:

- a. Integrate knowledge and use clinical reasoning skills in accomplishing the following steps when managing a patient with the disease state:
  - i. Collect: Gather subjective and objective information about the patient in order to

understand the relevant medical and medication history and clinical status of the patient.

1. Subjective and objective information is collected through patient interview, medical record review, pharmacy profile review, and communication with other members of the health care team.
2. A Holistic View is initiated during collection in order to consider physiological, psychological, and sociological variables of the patient and this view is maintained throughout the patient care process.
  - ii. Assess: Assess the information collected and analyze the clinical effects of the patient's therapy in the context of the patient's overall health goals in order to identify and prioritize problems and achieve optimal care.
    1. Understand, explain, and assess a patient's health status.
    2. Interpret physical and patient assessment findings
    3. Assess each medication for appropriateness, effectiveness, safety, and patient adherence.
    4. Assess health and functional status, risk factors, health data, cultural factors, health literacy, and access to medications or other aspects of care.
    5. Assess immunization status and the need for preventive care and other health care services.
    6. Integrate knowledge, clinical experience, and patient data to formulate and test hypotheses about the etiology of medication-related problems. (Generate hypotheses)
    7. Establish potential and actual medication-related problems.
  - iii. Plan: Develop an individualized patient-centered care plan in collaboration with other health care professionals and the patient/caregiver.
    1. Therapeutic Goals: Develop specific and general therapeutic goals for the patient. These goals achieve clinical outcomes in the context of the patient's overall health care goals and access to care.
    2. Therapeutic Plan: Integrate knowledge, evidence-based literature/information, clinical experience, patient data, patient goals and desires, and the prescriber's judgment when developing the best pharmacotherapeutic plan for the patient.
      - a. Therapeutic Alternatives: Evaluate pharmacotherapeutic alternatives for the patient before establishing the therapeutic plan.
      - b. Develop the Therapeutic Plan: This plan addresses medication-related problems and optimizes medication therapy. Considerations for the plan include:
        - i. Goals and desires of the patient
        - ii. Application of established practice guidelines, evidence-based medicine, pharmacogenetics, and population-based treatment plans in developing the plan.
        - iii. Accurate and patient-specific dosing (including dosage adjustment for renal/hepatic dysfunction, genotype, starting dose, maximum doses, timing of doses and pharmacokinetic design for narrow therapeutic index drugs,).
        - iv. Parameters for monitoring response and frequency of monitoring
        - v. Parameters for monitoring adverse effect and frequency of monitoring
        - vi. Plan for patient counseling/education
        - vii. Supports care continuity, including follow-up and transitions of care as appropriate.
      - c. Patient/Caregiver engagement: The patient/caregiver are involved through education, empowerment, and self-management.
      - iv. Implement: Implement the care plan in collaboration with other health care professionals and the patient/caregiver. When implementing the care plan, the following are accomplished:
        1. Medication and health-related problems are addressed.
        2. Preventative care including vaccine administration are provided.
        3. Medication therapy is initiated, modified, discontinued, or administered as authorized.
        4. Education and self-management training is provided to the patient/caregiver.
        5. Refers and provides transitions of care as needed.
        6. Schedules follow-up care as needed to achieve goals of therapy.

- v. Follow-up (Monitor and Evaluate): Monitor and evaluate the effectiveness of the care plan and modify the plan in collaboration with other health care professionals and the patient/care giver. The following are continually monitored and evaluated:
  1. Medication appropriateness, effectiveness, and safety and patient adherence through available data, biometric test results and patient feedback.
  2. Clinical endpoints that contribute to the patient's overall health.
  3. Outcomes of care, including progress toward or achievement of goals.
- vi. Patient-Centered Care: Foster a patient-centered care approach by accomplishing the following:
  1. Communicate: Succinctly communicate with other health care team members and the patient/caregiver throughout the patient care process.
  2. Collaborate: Discuss with team members the specific therapeutic approaches for individual patients based on scientifically and logically validated assessment of the patient's health care needs and an ethical consideration of the patient's health care goals and desires.
  3. Document: Prepare a written communication that is well-organized, logical, complete, appropriate, and evidence-based.
  - b. Apply and integrate foundational knowledge (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) throughout the patient care process. This will require the ability to:
    - i. Describe the pathophysiology of disease state(s) and identify appropriate drug targets (cellular/molecular), biochemical processes, and organ changes for therapeutic intervention. Specifically, for a given disease state:
      1. Describe the basic pathophysiology of the disease including an explanation of the abnormal processes and the resulting disease signs and symptoms.
      2. Outline risk factors and/or diagnostic indicators (e.g., lab values, diagnostic test results).
      3. Determine classes of drugs that will treat the disease state and ameliorate the underlying pathophysiology and signs/symptoms.
    - ii. Apply knowledge about structure-activity relationships and cellular/molecular mechanisms of action to identify drug classes that are appropriate for treatment of the disease state. Specifically, for each drug class:
      1. Identify the relevant therapeutic targets and explain the mechanism(s) of action.
    - iii. Compare and contrast the therapeutic and adverse effects of drug classes that are appropriate for treating the disease state.
      1. Describe major pathways for metabolism and the pharmacological/therapeutic consequences of metabolism.
      2. Identify the most common/serious drug interactions and adverse effects.
      3. Identify important precautions and contraindications.
      4. Recommend any unique storage, handling, or use requirements to ensure patient safety and clinical efficacy.
      5. Discuss significant pharmacokinetic, pharmacogenetic, and pharmacodynamic considerations.
    - iv. Compare and contrast the therapeutic and adverse effects of drugs within a given class and then recommend the best drug for the patient.
    - v. Integrate the following transcending concepts when assessing a patient and developing a care plan:
      1. Apply foundational concepts about health information and informatics (Informatics)
      2. Evaluate cohort studies and apply to a patient need (Evidence-based practice)
      3. Use clinical reasoning and clinical judgment (Problem-solving)
      4. Address social considerations such as cultural sensitivity, health-related beliefs, health literacy, factors of a population including public health, access to care, quality, healthcare delivery, and policy (Social considerations)
      5. Consider patient/families behavioral considerations such as attitudes about health/wellness, adherence, effect of chronic illness, stress, and death and dying when providing care (Behavioral considerations).
      6. Communicate with patients, caregivers, and other health professionals.



7. Consider pharmacists' professional responsibilities including laws and ethics.
  8. Consider strategies for health/wellness.
  9. Consider drug delivery systems.
  10. Apply pharmacokinetics pertinent to cardiovascular and pulmonary diseases.
  11. Apply pharmacogenomics (Personalized Medicine)
  12. Care for geriatric patients with cardiovascular and pulmonary diseases (Special populations)
  13. Assess the role of nonprescription/herbal products in the treatment of pulmonary disease (Self-care)
  14. Use SBAR when communicating with another health professional (Interprofessional collaboration)
  15. Consider medication safety for cardiovascular and pulmonary diseases
  16. Consider pharmacokinetics for cardiovascular and pulmonary diseases
  17. Apply population-based care for cardiovascular and pulmonary diseases
2. Demonstrate the ability to be an effective team member by collaborating in preparing for class sessions and in solving case studies.

### **Course Textbook(s) and/or Other Assigned Reading**

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned, or a representative list of readings.*

Response:

1. Foye WO, Lemke T, Williams DA. Foye's Principles of Medicinal Chemistry, Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia, PA, 7th Edition, 2013. ISBN-13:978-1609133450; ISBN-10:1609133455
2. AccessPharmacy, McGraw-Hill Professional, New York, NY (This resource is available through the UF Health Science Center Library.) The following resources will be frequently used:
  - o Brunton L. Goodman and Gilman's The Pharmacological Basis of Therapeutics, McGraw-Hill Professional, New York, NY, 12th Edition, 2011. ISBN-13:978-0071624428; ISBN-10:0071624422 (Available in Access Pharmacy)
  - o Dipiro, J, Talbert R, Yee G, Matzke G, Wells B, Posey L. Pharmacotherapy – A pathophysiologic approach. McGraw-Hill Professional, New York, NY, 9th Edition, 2014. ISBN-13:978-0071800532; ISBN-10:0071800530 (Available in Access Pharmacy)
  - o Other available resources include: Multiple textbooks, Calculators, Pharmacotherapy Casebook and Care Plans, Cases, Self-Assessments and Multimedia Videos
3. Readings from the primary literature will also be assigned where appropriate.

### **Weekly Schedule of Topics**

*Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.*

Response:

- Week 1: Module 1 - Dyslipidemia  
 Module 2 - Hypertension  
 Week 2: Module 2 - Hypertension - continues  
 Week 3: Module 2 - Hypertension - continues

Module 3 - Ischemic Heart Disease  
Week 4: Module 3 - Ischemic Heart Disease - Continues  
Module 4 - Anticoagulation and Acute Coronary Syndrome  
Week 5: Module 5 - Heart Failure  
Module 6 - Anticoagulation & Arrhythmias  
Week 6: Module 7 - Asthma  
Module 8 - COPD  
Module 9 - Respiratory Conditions  
Week 7 - Finals Week (Capstone & Exam)

### **Grading Scheme**

*List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity.*

Response:

Individual Quizzes - Each Case Studies Session includes an individual quiz (N = 16)

10%

Team Assessment\* = Each Case Studies Session includes a group quiz (N = 16)

20%

Exam #1

20%

Exam #2

20%

Final Exam

30%

\*Please note that team quiz points earned in this course will be reduced with an up to a 5-point deduction should your contribution to your team's effectiveness, assessed using CATME (Appendix D [peer assessment]), finds that your performance requires improvement. For example, a student earning

### **Instructor(s)**

*Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.*

Response:

Randy Hatton, BPharm, PharmD, FCCP, BCPS

Maureen Keller-Wood, Ph.D.

Yousong Ding, Ph.D.

Priti Patel, Pharm.D.

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**PHA 5783C Patient Care 3:  
Introduction to Cardiovascular & Pulmonary Diseases**

**Fall 2016 – Block 6  
6 Credit Hours**

**Course Purpose:**

Third of an eight course sequence that prepares the student to provide patient-centered care by serving as a collaborative interprofessional team-member who is an authority on pharmacotherapy. This course also prepares the student to be a collaborative team member since learning involves teamwork. This course focuses on providing patient-centered care to patients who have cardiovascular and pulmonary disorders. Learners will develop, integrate, and apply knowledge from the foundational disciplines (i.e., *pharmaceutical, social/behavioral/administrative*, and *clinical sciences*) and apply the Pharmacists' Patient Care Process in solving case-based scenarios of patients with cardiovascular and pulmonary diseases.

**Course Faculty and Office Hours**

(See **Appendix A** for Who to Contact)

**Academic Director:** Randy Hatton, BPharm, PharmD, FCCP, BCPS

Email: rhatton@cop.ufl.edu

Office: HPNP 2331

Phone: 352-294-5785

Office Hours: By appointment

**Core Teaching Partners:**

Name

Email:

Phone:

Maureen Keller-Wood, Ph.D.

[kellerwd@cop.ufl.edu](mailto:kellerwd@cop.ufl.edu)

352-273-7687

Yousong Ding, Ph.D.

[yding@cop.ufl.edu](mailto:yding@cop.ufl.edu)

352-273-7742

Priti Patel, Pharm.D.

[ppatel@cop.ufl.edu](mailto:ppatel@cop.ufl.edu)

727-394-6213

**Appendix B** contains the contact information for all teaching partners

**Instructional Designer:**

Julie Stewart-Thomas, M.Ed

**Academic Coordinator**

Name - TBD

Email:

Office:

Phone:

Office Hours: by email and appointment

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## **This Course Will Prepare You to Perform the Following Activities Which the Public Entrusts a Pharmacist to Perform:**

1. **EPA A1.** Collect subjective and objective data by performing a patient assessment and gathering data from chart/electronic records, pharmacist records, other health professionals and patient/family interviews.
2. **EPA A2.** Interpret patient data, and identify medication-related problems and develop a prioritized problem list.
3. **EPA A3.** Formulate evidence-based care plans in collaboration with an interprofessional team. Utilize clinical guidelines in the development of a pharmacotherapy plan.
4. **EPA A4.** Document a patient/clinical encounter electronically/in writing.
5. **EPA A5.** Provide counseling and medications and health wellness (including referral when there are social determinants of health and disparities).
6. **EPA A6.** Assess and counsel a patient about health-wellness.
7. **EPA A7.** Present a succinct oral patient summary and plan to a health care provider. Defend a therapeutic plan verbally or in writing using references, guidelines, or primary literature.
8. **EPA A8.** Give and receive a patient handover to transition care.
9. **EPA A9.** Collaborate as a member of an interprofessional team and provide patient-centered care.

### **Course-Level Objectives**

**Upon completion of this course, the student will be able to provide patient-centered care for patients with one or more of the following disorders or pharmacotherapy needs:**

- Dyslipidemia
- Hypertension
- Anticoagulation
- Ischemic Heart Disease—Stable Angina Pectoris
- Acute Coronary Syndrome
- Chronic Heart Failure
- Arrhythmias—Atrial Fibrillation
- Asthma
- COPD
- Complicated Pneumonias

**1. Specifically, given a patient with one or more of the above disorders/pharmacotherapy needs:**

**a. Integrate knowledge and use clinical reasoning skills in accomplishing the following steps when managing a patient with the disease state:**

- i. **Collect:** Gather subjective and objective information about the patient in order to understand the relevant medical and medication history and clinical status of the patient.
  1. Subjective and objective information is collected through patient interview, medical record review, pharmacy profile review, and communication with other members of the health care team.

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2. A Holistic View is initiated during collection in order to consider physiological, psychological, and sociological variables of the patient and this view is maintained throughout the patient care process.
- ii. **Assess:** Assess the information collected and analyze the clinical effects of the patient's therapy in the context of the patient's overall health goals in order to identify and prioritize problems and achieve optimal care.
    1. Understand, explain, and assess a patient's health status.
    2. Interpret physical and patient assessment findings
    3. Assess each medication for appropriateness, effectiveness, safety, and patient adherence.
    4. Assess health and functional status, risk factors, health data, cultural factors, health literacy, and access to medications or other aspects of care.
    5. Assess immunization status and the need for preventive care and other health care services.
    6. Integrate knowledge, clinical experience, and patient data to formulate and test hypotheses about the etiology of medication-related problems. (Generate hypotheses)
    7. Establish potential and actual medication-related problems.
  - iii. **Plan:** Develop an individualized patient-centered care plan in collaboration with other health care professionals and the patient/caregiver.
    1. **Therapeutic Goals:** Develop specific and general therapeutic goals for the patient. These goals achieve clinical outcomes in the context of the patient's overall health care goals and access to care.
    2. **Therapeutic Plan:** Integrate knowledge, evidence-based literature/information, clinical experience, patient data, patient goals and desires, and the prescriber's judgment when developing the best pharmacotherapeutic plan for the patient.
      - a. **Therapeutic Alternatives:** Evaluate pharmacotherapeutic alternatives for the patient before establishing the therapeutic plan.
      - b. **Develop the Therapeutic Plan:** This plan addresses medication-related problems and optimizes medication therapy. Considerations for the plan include:
        - i. Goals and desires of the patient
        - ii. Application of established practice guidelines, evidence-based medicine, pharmacogenetics, and population-based treatment plans in developing the plan.
        - iii. Accurate and patient-specific dosing (including dosage adjustment for renal/hepatic dysfunction, genotype, starting dose, maximum doses, timing of

- 
- doses and pharmacokinetic design for narrow therapeutic index drugs,).
  - iv. Parameters for monitoring response and frequency of monitoring
  - v. Parameters for monitoring adverse effect and frequency of monitoring
  - vi. Plan for patient counseling/education
  - vii. Supports care continuity, including follow-up and transitions of care as appropriate.
  - c. **Patient/Caregiver engagement:** The patient/caregiver are involved through education, empowerment, and self-management.
  - iv. **Implement:** Implement the care plan in collaboration with other health care professionals and the patient/caregiver. When implementing the care plan, the following are accomplished:
    - 1. Medication and health-related problems are addressed.
    - 2. Preventative care including vaccine administration are provided.
    - 3. Medication therapy is initiated, modified, discontinued, or administered as authorized.
    - 4. Education and self-management training is provided to the patient/caregiver.
    - 5. Refers and provides transitions of care as needed.
    - 6. Schedules follow-up care as needed to achieve goals of therapy.
  - v. **Follow-up (Monitor and Evaluate):** Monitor and evaluate the effectiveness of the care plan and modify the plan in collaboration with other health care professionals and the patient/care giver. The following are continually monitored and evaluated:
    - 1. Medication appropriateness, effectiveness, and safety and patient adherence through available data, biometric test results and patient feedback.
    - 2. Clinical endpoints that contribute to the patient's overall health.
    - 3. Outcomes of care, including progress toward or achievement of goals.
  - vi. **Patient-Centered Care:** Foster a patient-centered care approach by accomplishing the following:
    - 1. **Communicate:** Succinctly communicate with other health care team members and the patient/caregiver throughout the patient care process.
    - 2. **Collaborate:** Discuss with team members the specific therapeutic approaches for individual patients based on scientifically and logically validated assessment of the patient's health care needs

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and an ethical consideration of the patient's health care goals and desires.

3. **Document:** Prepare a written communication that is well-organized, logical, complete, appropriate, and evidence-based.

b. **Apply and integrate foundational knowledge (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) throughout the patient care process.** This will require the ability to:

- i. Describe the pathophysiology of disease state(s) and identify appropriate drug targets (cellular/molecular), biochemical processes, and organ changes for therapeutic intervention. Specifically, for a given disease state:
  1. Describe the basic pathophysiology of the disease including an explanation of the abnormal processes and the resulting disease signs and symptoms.
  2. Outline risk factors and/or diagnostic indicators (e.g., lab values, diagnostic test results).
  3. Determine classes of drugs that will treat the disease state and ameliorate the underlying pathophysiology and signs/symptoms.
- ii. Apply knowledge about structure-activity relationships and cellular/molecular mechanisms of action to identify drug classes that are appropriate for treatment of the disease state. Specifically, for each drug class:
  1. Identify the relevant therapeutic targets and explain the mechanism(s) of action.
- iii. Compare and contrast the therapeutic and adverse effects of drug classes that are appropriate for treating the disease state.
  1. Describe major pathways for metabolism and the pharmacological/therapeutic consequences of metabolism.
  2. Identify the most common/serious drug interactions and adverse effects.
  3. Identify important precautions and contraindications.
  4. Recommend any unique storage, handling, or use requirements to ensure patient safety and clinical efficacy.
  5. Discuss significant pharmacokinetic, pharmacogenetic, and pharmacodynamic considerations.
- iv. Compare and contrast the therapeutic and adverse effects of drugs within a given class and then recommend the best drug for the patient.
- v. Integrate the following transcending concepts when assessing a patient and developing a care plan:
  1. Apply foundational concepts about health information and informatics (Informatics)
  2. Evaluate cohort studies and apply to a patient need (Evidence-based practice)

3. Use clinical reasoning and clinical judgment (Problem-solving)
4. Address social considerations such as cultural sensitivity, health-related beliefs, health literacy, factors of a population including public health, access to care, quality, healthcare delivery, and policy (Social considerations)
5. Consider patient/families behavioral considerations such as attitudes about health/wellness, adherence, effect of chronic illness, stress, and death and dying when providing care (Behavioral considerations).
6. Communicate with patients, caregivers, and other health professionals.
7. Consider pharmacists' professional responsibilities including laws and ethics.
8. Consider strategies for health/wellness.
9. Consider drug delivery systems.
10. Apply pharmacokinetics pertinent to cardiovascular and pulmonary diseases.
11. Apply pharmacogenomics (Personalized Medicine)
12. Care for geriatric patients with cardiovascular and pulmonary diseases (Special populations)
13. Assess the role of nonprescription/herbal products in the treatment of pulmonary disease (Self-care)
14. Use SBAR when communicating with another health professional (Interprofessional collaboration)
15. Consider medication safety for cardiovascular and pulmonary diseases
16. Consider pharmacokinetics for cardiovascular and pulmonary diseases
17. Apply population-based care for cardiovascular and pulmonary diseases

2. **Demonstrate the ability to be an effective team member by collaborating in preparing for class sessions and in solving case studies.**

### **Pre-Requisite or Co-Requisite Knowledge and Skills**

1. Pre-requisite: PHA 5781 Patient Care 1\*
2. Pre-requisite: PHA 5755 Principles of Medical Microbiology, Immunology, and Virology\*
3. Pre-requisite: PHA 5782 Patient Care 2: Infectious Diseases and Oncology\*
4. Co-Requisite: PHA 5163 L Professional Practice Skills Lab III

\*These pre-requisites may be waived with the consent of the Academic Performance Committee



## Course Outline

Case studies will involve application of what has been learned to date during the Pharm.D. Curriculum. Students are responsible for addressing all disorders and related patient problems that have been previously learned.

**Appendix C** provides a guide for students in working up case studies.

**ALERT about Schedule:** Please routinely check your campus calendar and the Canvas course site for any messages about changes in the schedule including meeting dates/times, deadlines, and room changes

<i>Date Recommended Dates for Viewing Videos</i>	Module and Unit	Unit Topic Learning Resources will include Lecture Videos and readings.	Contact Hours [hr.] <sup>a</sup>	Faculty
	<b>Module 1: Dyslipidemia</b> (Approximately 6.25 hours of direct instruction & 12.5 hours out of class; total = 18.75 hr.  Pharmacology: Shannon Miller Medicinal Chemistry: Robert Huigens PTR: Rhonda Cooper-DeHoff		<b>6.25</b>	
9/28 (W)	1A	Dyslipidemia – Lipid Metabolism	0.75	Miller
9/28 (W)	1B	Pharmacology of Antihyperlipidemics	1	Miller
9/29 (Th)	1C	Medicinal Chemistry of Antihyperlipidemics	0.75	Huigens
9/29 (Th)	1D	Management of Dyslipidemia	1	Cooper-DeHoff
9/29 (Th)	1E	Transcending Concept: Health Information and Informatics—HIT Supporting Outpatient Drug Use	0.75	Denise Klinker
9/30 (Fri)	<b>Thru 1E</b>	<b>Case Studies: Dyslipidemia</b> (includes individual and team quizzes)	2 (4 workup)	Miller, Huigens, Cooper-DeHoff, Klinker
	<b>Module 2: General Cardiovascular/Hypertension</b> (Approximately 21 hours of direct instruction & 42 hours out of class; total = 63 hr  Pharmacology: Maureen Keller-Wood Medicinal Chemistry: Jane Aldrich PTR: TBD		<b>21</b>	
10/3 (M)	2A	General Cardiovascular Pathophysiology (Vascular Control, Special Circulation, Reflex Control)	2	Keller-Wood

10/3 (M)	2B	Pathophysiology and Pharmacology: Autonomic Function, Sympathetic System, Sympathomimetics, Cholinergic System, Cholinergic Antagonists, Ganglionic, Adrenergics, Calcium Channel Blockers, and Neuromuscular	2.5	Frazier
10/3 (M)	2C	Pathophysiology of Hypertension	1	Cooper-DeHoff
10/5 (W)	<b>Thru 2C</b>	<b>Case Studies: Pathophysiology of Hypertension</b> (includes individual and team quizzes)	1 (2 workup)	Keller-Wood, Frazier, Cooper-DeHoff
10/4 (T)	2D	Pharmacology of Angiotensin Converting Enzyme (ACE) Inhibitors, Angiotensin-Receptor Blockers, Renin Inhibitors, Beta-blockers, Calcium Channel Blockers, Adrenergic Agents, Diuretics	3.5	Eric Krause
10/4 (T)	2E	Medicinal Chemistry of Angiotensin Converting Enzyme (ACE) Inhibitors, Angiotensin-Receptor Blockers, Renin Inhibitors, Beta-blockers, Calcium Channel Blockers, Adrenergic Agents, Diuretics	3.5	Aldrich
10/5 (W)	2F	Management of Hypertension	1.5	Cooper-DeHoff
10/5 (W)	2G	Transcending Concept: Social—Fighting Obesity; Health Disparities; Hypertension	0.5	Motycka
10/6 (Th)	<b>Thru 2G</b>	<b>Case Studies: Hypertension</b> (includes individual and team quizzes)	2 (4 workup)	Aldrich, Cooper-DeHoff, Motycka
10/6 (Th)	2H	Transcending Concept: Behavioral—Adherence	1	Roane
10/6 (Th)	2I	Transcending Concept: Health-Wellness—Hypertension	0.5	Vogel-Anderson
10/10 (M)	<b>Thru 2I</b>	<b>Case Studies: Hypertension</b> (includes individual and team quizzes)	2 (4 workup)	Aldrich, Cooper-DeHoff, Motycka, Roane, Vogel-Anderson
		<b>Module 3: Ischemic Heart Disease</b> (Approximately 5.25 hours of direct instruction & 10.5 hours out of class; total = 15.75 hr  Pharmacology: Maureen Keller-Wood Medicinal Chemistry: Yousong Ding PTR: Larisa Cavallari	<b>5.25</b>	
10/12 (W)	3A	Pharmacology on Nitrodilators	0.75	Keller-Wood

10/12 (W)	3B	Medicinal Chemistry of Nitrodilators	0.5	Ding
10/12 (W)	3C	Management of Ischemic Heart Disease	1	Cavallari
10/12 (W)	3D	Transcending Concept: Communication—Interview Skills and Accurate Medication Lists	1	Roane
10/13 (Th)	<b>Thru 3D</b>	<b>Case Studies: Ischemic Heart Disease</b> (includes individual and team quizzes)	2 (4 workup)	Keller-Wood, Ding, Cavallari, Roane
10/14 (F)	<b>Exam #1</b> (Covers Modules 1-3)		<b>2</b>	
	<b>Module 4: Anticoagulation and Acute Coronary Syndrome</b> (Approximately 7 hours of direct instruction & 14 hours out of class; total = 21 hr  Pharmacology: Stacy Voils Medicinal Chemistry: Yousong Ding PTR: Katie Vogel-Anderson		<b>7</b>	
10/17 (M)	4A	Pathophysiology of Blood Clotting	1.5	Vogel-Anderson
10/17 (M)	4B	Pharmacology of Anticoagulants, Fibrinolytic Agents, and Antiplatelet Therapy	1.5	Voils
10/14 (M)	4C	Medicinal Chemistry of Anticoagulants, Fibrinolytic Agents, and Antiplatelet Therapy	1	Ding
10/14 (M)	4D	Management of Acute Coronary Syndrome	1	Vogel-Anderson
10/19 (W)		<b>Case Studies: Acute Coronary Syndrome</b> (includes individual and team quizzes)	2 (4 workup)	Vogel-Anderson, Voils, Ding, TBD
	<b>Module 5: Heart Failure</b> (Approximately 10.5 hours of direct instruction & 21 hours out of class; total = 31.5 hr  Pharmacology: Maureen Keller-Wood Medicinal Chemistry: Yousong Ding PTR: Larissa Cavallari		<b>10.5</b>	
10/20 (Th)	5A	Pathophysiology of Heart Failure	2	Keller-Wood
10/20 (Th)	5B	Pharmacology of Inotropic Agents, Glycosides, Beta-blockers, Nitrodilators, Aldosterone Antagonists	2	Keller-Wood

10/20 (Th)	5C	Medicinal Chemistry of Inotropic Agents, Glycosides, Nitrodilators, Aldosterone Antagonists	1.5	Ding
10/21 (F)		<b>Case Studies: Pathophysiology of Heart Failure</b> (includes individual and team quizzes)	1 (2 workup)	Keller-Wood, Ding, Cavallari
10/21 (F)	5D	Management of Chronic Heart Failure (HFrEF & HFpEF)	1	Cavallari
10/21 (F)	5E	Transcending Concept: Medication Safety—Medication Reconciliation	1	Vogel-Anderson & Segal
10/24 (M)		<b>Case Studies: Heart Failure</b> (includes individual and team quizzes)	2 (4 workup)	Keller-Wood, Ding, Cavallari, Vogel-Anderson, Segal
	<b>Module 6 Anticoagulation &amp; Arrhythmias</b> (Approximately 8 hours of direct instruction & 16 hours out of class; total = 24 hr  Pharmacology: Maureen Keller-Wood Medicinal Chemistry: Yousong Ding PTR: Larissa Cavallari		<b>8</b>	
10/26 (W)	6A	Individualized Heparin and Warfarin Dosing	1	TBD
10/26 (W)	6B	Pathophysiology of Arrhythmias	0.75	Keller-Wood
10/26 (W)	6C	Introduction to Electrocardiology	0.75	Vogel-Anderson
10/26 (W)	6D	Pharmacology of Antiarrhythmics	1	TBD
10/27 (Th)	6E	Medicinal Chemistry of Antiarrhythmics	1	Ding
10/27 (Th)	6F	Management of Arrhythmias	1	Vogel-Anderson
10/27 (Th)	6G	Pharmacokinetics of Digoxin and Antiarrhythmics	0.5	Bihorel
10/28 (F)	<b>Thru 6F</b>	<b>Case Studies: Atrial Fibrillation</b> (includes individual and team quizzes)	2 (4 workup)	TBD, Keller-Wood, Vogel-Anderson, Ding, Bihorel
11/3 (Th)	<b>Exam #2</b> (Covers Modules 4-7)		<b>2</b>	
	<b>Module 7: Asthma</b> (Approximately 9 hours of direct instruction & 18 hours out of class; total = 25 hr  Pharmacology: TBD Pharmaceutics: Guenther Hochhaus Medicinal Chemistry: Yousong Ding PTR: Michelle Farland		<b>9</b>	
11/4 (F)	7A	Pathophysiology of Asthma	1	Farland
11/4 (F)	7B	Pharmacology of Oral and Inhaled Corticosteroids, Short-acting Beta-	2	Hochhaus

		agonists, Long-acting Beta-agonists, Muscarinic Agents		
11/4 (F)	7C	Medicinal Chemistry of Oral and Inhaled Corticosteroids, Short-acting Beta-agonists, Long-acting Beta-agonists, Muscarinic Agents	1	Aldrich
11/4 (F)	7D	Management of Chronic Asthma	1.5	Farland
11/4 (F)	7E	Transcending Concept: Personalized Medicine—Asthma	0.5	McDonough
11/4 (F)	7F	Transcending Concept: Population-based Care & Pharmacoeconomics CEA and PROs in asthma product evaluation; value-based drug formularies (Regence example)	1	Navarro
11/7 (M)	<b>Thru 7F</b>	<b>Case Studies: Asthma</b> (includes individual and team quizzes)	2 (4 workup)	Farland, Hochhaus, Aldrich, McDonough, TBD, Navarro
	<b>Module 8: COPD</b> (Approximately 5.0 hours of direct instruction & 10 hours out of class; total = 15 hr  Pharmacology: Michelle Farland PTR: Michelle Farland & Karen Sando		<b>5.0</b>	
11/9 (W)	8A	Pathophysiology of COPD	1	Farland
11/9 (W)	8C	Management of COPD	1	Farland
11/9 (W)	8D	Transcending Concepts: Health-Wellness—Smoking Cessation	1	Sando
11/10 (Th)	<b>Thru 8D</b>	<b>Case Studies: COPD</b> (includes individual and team quizzes)	2 (4 workup)	Farland, Hochhaus, Aldrich, Sando
	<b>Module 9: Respiratory Conditions</b> (Approximately 7.5 hours of direct instruction & 15 hours out of class; total = 22.5 hr  PTR: Ken Klinker Shannon Miller Stacey Curtis Charles Peloquin		<b>7.5</b>	
11/14 (M)	9A	Hospital- & Nursing Home Acquired—Pneumonias	1	Klinker
11/14 (M)	9B	Transcending Concepts: Self-Care—Cough & Cold (re-enforce from Patient Care 1)	0.5	Curtis
11/14 (M)	9C	Tuberculosis	2	Peloquin
11/14 (M)	9D	Lung Cancer	1	TBD

11/14 (M)	9E	Transcending Concepts: Special Populations—Geriatric Drug Dosing	1	Miller
11/16 (W)	<b>Thru 9D</b>	<b>Case Studies: Resistant Pneumonia (Hospital- vs Nursing Home-Acquired vs Tuberculosis)</b> (includes individual and team quizzes)	2 (4 workup)	Klinker, Miller, Curtis, Peloquin
		<b>Module 10: Capstone</b> (Approximately 6.5 hours of direct instruction & 13 hours out of class; total = 19.5 hr  Pharmacology: Maureen Keller-Wood Medicinal Chemistry: Yousong Ding PTR: TBD	<b>6.5</b>	
11/16 (W)	10A	Transcending Concept: Evidence-Based Practice—Cohort Studies and Confounding and Bias	1	Wei
11/16 (W)	10B	Transcending Concept: Professionalism—Ethics and Law	0	Allen
11/16 (W)	10C	Transcending Concept: Personalized Medicine—Cardiovascular Diseases	0.5	Cavallari
11/16 (W)	10D	Transcending Concept: Interprofessional Communication - Listen actively, and encourage ideas and opinions of other interprofessional team members.	1	Schentrup
11/16 (Th)	<b>1A-10D</b>	<b>Case Studies: Capstone</b> (includes individual and team quizzes)	2 (4 workup)	All Faculty
11/17 (F)	<b>1A-10D</b>	<b>Case Studies: Capstone</b> (includes individual and team quizzes)	2 (4 workup)	
<b>11/21 (M)</b>	<b>All Modules</b>	Comprehensive Final Exam (Items Cover All Modules and All Prior Coursework)	<b>2</b>	

<sup>a</sup>This column contains the direct contact hours [hr]. Double the number of hours is expected to be spend out of class (readings, studying, and preparation for class. Cases will be usually 4 hours, but will only count as 2 hours of time because time is devoted for students to discuss/learn in teams and learning involves recitation.

This course is estimated to require 270 hours over 7.5 weeks (i.e., 36 hours per week for a 6-credit-hour course) = 90 hours (i.e., 12 hours per week) of “direct faculty instruction” (videos and in-class time) and a minimum of 180 hours (i.e., 24 hours per week) of “out-of-class” (readings, studying, and preparation for cases) work. Note: As noted by UF policy, for each hour of “Instructor Contact,” students are expected to spend a minimum of 2 hours of additional time completing learning activities. Thus, if a week has 15 hours of Instructor Contact, the student should plan on a minimum of 30 additional hours of study. Therefore, they typical student will devote 45 hours of effort to the course that week. The course hours estimated in this syllabus are for a “typical” student – some students will find that they will devote less time, while others will need to devote more time.

## Textbooks

### The following textbooks are required:

1. Foye WO, Lemke T, Williams DA. Foye's Principles of Medicinal Chemistry, Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia, PA, 7<sup>th</sup> Edition, 2013. ISBN-13:978-1609133450; ISBN-10:1609133455
2. AccessPharmacy, McGraw-Hill Professional, New York, NY (This resource is available through the UF Health Science Center Library.) The following resources will be frequently used:
  - Brunton L. Goodman and Gilman's The Pharmacological Basis of Therapeutics, McGraw-Hill Professional, New York, NY, 12<sup>th</sup> Edition, 2011. ISBN-13:978-0071624428; ISBN-10:0071624422 (Available in Access Pharmacy)
  - Dipiro, J, Talbert R, Yee G, Matzke G, Wells B, Posey L. Pharmacotherapy – A pathophysiologic approach. McGraw-Hill Professional, New York, NY, 9th Edition, 2014. ISBN-13:978-0071800532; ISBN-10:0071800530 (Available in Access Pharmacy)
  - Other available resources include: Multiple textbooks, Calculators, Pharmacotherapy Casebook and Care Plans, Cases, Self-Assessments and Multimedia Videos
3. Readings from the primary literature will also be assigned where appropriate.

## Materials and Supplies Fees:

None

## Student Evaluation & Grading

### Evaluation Methods and how grades are determined

The Canvas© gradebook will be set up using the percentages below to compute the grade. The Case Studies Sessions and the Capstone will involve students working in assigned teams and collaboratively preparing for the class sessions and solving the case studies.

Assessment Item	Grade Percentage
Individual Quizzes Each Case Studies Session includes an individual quiz (N = 16)	10

Team Assessment* Each Case Studies Session includes a group quiz (N = 16)	20*
Exam #1	20
Exam #2	20
<b>Final Exam</b>	30
Total	100%

\*Please note that team quiz points earned in this course will be reduced with an up to a 5-point deduction should your contribution to your team's effectiveness, assessed using CATME (**Appendix D** [peer assessment]), finds that your performance requires improvement. For example, a student earning 13 of 15 possible points for a tRAT could see earned points drop to 8 out of the 15 possible points.

### Grading Scale (The following grade scale is used across all courses)

> 92.5%	A
89.5-92.4%	A-
86.5-89.4%	B+
82.5-86.4%	B
79.5-82.4%	B-
76.5-79.4%	C+
72.5-76.4%	C
69.5-72.4%	C-
66.5-69.4%	D+
62.5-66.4%	D
59.5-62.4%	D-
< 59.4%	E

**Rounding of grades:** Final course grade will only be rounded up if the decimal is 0.5 or higher. The above scale depicts this policy.

### Educational Technology Use

The following technology below will be used during the course and the student must have the appropriate technology and software. **Appendix A** outlines who to contact if you have questions about technology.

1. ExamSoft®
2. Canvas® Learning Management System

### Class Attendance Policy

#### Policy Across All 1PD-3PD courses:

Class attendance is mandatory for active learning sessions such as problem-solving sessions, case discussions, and laboratory sessions. Student attendance may be excused by the Teaching Partnership Leader in the following situations: documented illness, serious family emergencies, military obligation,



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severe weather conditions, religious holidays, and other reasons of serious nature. The Pharm.D. calendar allows for participation in special curricular requirements (e.g., professional meetings). Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) are excused. Conflict with work schedules is an unexcused absence.

Requests for excused absences MUST be made by an email to the Academic Coordinator and the course facilitator prior to the scheduled session or if it is an emergency situation, as soon as possible. The student is responsible for follow up and confirming whether the absence is excused or unexcused. The Teaching Partnership Leader, Academic Coordinator, and your campus specific director must be CCD in this communication. The following format is recommended:

**To:** Academic Coordinator and Campus Course Facilitator  
**CC:** Teaching Partnership Leader and your specific campus director  
**Subject:** PHA XXXX – Excused Absence request

Dear Prof. \_\_\_\_\_,

Professionally and politely request an excused absence.

Explain the nature of conflict and rationale for receiving an excused absence.

Thank the faculty member for their consideration of your special request.

Salutation,

Type in your full name and last 4 digits of UF-ID #, and Campus Name

Failing to follow this policy will render the absence not excusable. A request for an "excused absence" does not guarantee acceptance. No precedence can be drawn from any courses in the College of Pharmacy or any other college within University of Florida.

Makeup assignment(s) will be made for any excused absence(s) and will typically be submitted ***within one-week of the missed session(s)***. If the situation leads to missing multiple class sessions and makeup becomes difficult, the student and Teaching Partnership Leader will meet with the Associate Dean of Student Affairs to develop options such as a makeup/remediation plan or course withdrawal. The time period for this make up will be consistent with the UF attendance policies.

Class attendance requires full engagement of activities and discussions. The following are unacceptable during class: 1) read non-course related materials that are either in hard-copy or web-based, 2) study for other courses, 3) use a laptop for activities that are not course-related. Class participation will be reduced in such situations.

Please refer to the University Attendance Policy at <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

**Additional Policy Specific to This Course:**

None

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## Quiz/Exam Policy

### Policy across All 1PD-3PD courses:

1. Students must arrive and be seated promptly to be eligible to take the exam. To maintain exam security, students who arrive late for the exam will not be allowed to start the exam if they are more than 30 minutes late or if another student has left the room after seeing the exam. Students who have valid reasons for arriving late at the exam may request a makeup exam as outlined below.
2. No talking or other disruptive behavior during the distribution or taking of the exam.
- 3 Calculators must meet the following requirements: Only nonprogrammable calculators are allowed during exams for this course.
4. If you encounter calculator problems (e.g., dead battery), contact the Proctor.
5. Nonessential materials are NOT allowed at the student's desk during examination periods. Please leave all nonessential materials outside of or in the front of the examination room.
6. Other exam rules may be instituted during the progression of the course.
7. Once the exam commences, students may not leave the room without first turning in the exam. Once the exam is turned in, the examination period for the student is considered complete and the student must leave the examination room. If there is urgent need to use the restroom, the Proctor will provide guidance.

*Failure to follow exam rules may be considered as evidence of academic dishonesty.*

### **Additional Policy Specific to This Course:**

None

## Make-up Quiz/Exam Policy

### Policy across All 1PD-3PD courses:

Makeup exams are given only under special circumstances. If the student is unable to take a scheduled examination, the Teaching Partnership Leader and Academic Coordinator must be notified before the examination or if it is an emergency situation, as soon as possible. In addition, a written letter of explanation requesting that the absence from the exam be excused, must be presented before the exam or if an emergency situation as soon as possible. An excused absence is allowable in the following situations: documented illness, serious family emergencies, military obligation, severe weather conditions, religious holidays, participation in special curricular requirements, excused absences for court-imposed legal obligations, and other reasons of serious nature. All excused absences will be considered on an individual basis by the Teaching Partnership Leader. For unusual situations (e.g., wedding that was planned before admission), the faculty member will communicate with student affairs.

The questions on the makeup exam may be in the form of essay, short answer, or multiple-choice and will be the same level of difficulty as the exam administered during the scheduled time. With the exception of highly extenuating circumstances, failure to follow the prescribed procedures or failure to attend the announced examination will result in a grade of zero for that exam. No precedence can be drawn from any courses in the College of Pharmacy or any other college within University of Florida.

The instructor will arrange an alternate deadline for the exam consistent with the University examination policies.

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The student may contact the instructor to obtain details about why points were deducted. The student has two weeks following the return of the Exam to clarify any questions and appeal any possible grading errors. Any appeals on the final examination must be made in writing and submitted to your facilitator. When an appeal is made to re-grade an Exam, the entire Exam will be reevaluated and scored.

**Additional Policy Specific to this Course:**

None.

**Policy on Old Quizzes and Assignments**

Old quizzes and assignments are not provided.

**General College of Pharmacy Course Policies**

The following policies apply to all courses in the College of Pharmacy and are available on the COP website:

***Attendance***

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

***University Grading Policies***

Please visit the following URL to understand how the University uses the course grade to compute your overall

GPA: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

***Concerns, Appeals, and Complaints***

Students who have concerns about their evaluation of performance and/or student-faculty relations should review the Student-Faculty Handbook for guidance. The Student-Faculty Handbook also outlines the chain of command for any appeals and/or complaints.

***Academic Integrity Policy***

Students are expected to act in accordance with the University of Florida policy on academic integrity (<http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php>). This Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult the course's Teaching Partnership Leader.

Students are also expected to abide by the UF Honor Code.

The following is the UF Honor Pledge: *We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code.*

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On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

### ***Psychomotor and Learning Expectations***

Psychomotor expectations relate to the ability to meet the physical demands of the pharmacy curriculum. Physically impaired students and students with learning disabilities such as hearing impairment, visual impairment, dyslexia or other specific learning disabilities such as sensory deficit or sensory-motor coordination problems should cooperate with the faculty and staff in addressing these problems in order to meet academic standards.

### ***How to Request Learning Accommodations***

Students with disabilities are strongly encouraged to register with Disabled Student Services in the Office for Student Services (P202 Peabody Hall) and it is recommend this be accomplished prior to starting the course.

- Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.
- Please visit the following URL for more information: <http://www.dso.ufl.edu/drc>

Please note that you must arrange for accommodations in advance; grades cannot be retroactively changed

### ***Faculty and Course Evaluations***

Students are expected to provide feedback on the quality of instruction in every course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu> . Evaluations are typically open around mid-semester and need to be completed by the established deadline. Summary results of these assessments are available to students at <https://evaluations.ufl.edu> .

### ***Computer and Other Technology Requirements***

Students are required to meet the following computer and technology requirements:

<http://pharmacy.ufl.edu/education/student-affairs/admissions/student-computer-requirements/>

ExamSoft® is used for administration of exams and students are required to follow the procedures that are established for exam administration. Students must bring a laptop to class to complete exams and this laptop must meet the computer and technology requirements established by the College. These technology requirements require a backup battery with at least 2 hours of life. Students must also complete mock exams prior to the actual exam to assure that all computer features are supported by ExamSoft®.

### ***Expectations In Class and Other Learning Activities***

Students are expected to:

- Be diligent and timely in studying the course material.
- Be on time for class sessions, quizzes, and exams.
- Be prepared for group discussions and conference calls.
- Do your own work.
- Actively collaborate with peers when assigned to groups.

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- Inform the course coordinator about an absence from an exam or other assigned class activity at least 24 hours prior to the event.
  - Dress appropriately for class sessions or clinically related activities.
  - Turn off cell phones and other electronic communication devices during a class session or phone conference.
  - Be quiet during class sessions including peer presentations.
  - Be focused and avoid distractive behaviors in class.
  - Appropriately use the computer in class, i.e., do not be looking at unrelated information on the web site during class.
  - Participate in class or group discussions.
  - Raise one's hand to be recognized before making a comment during a class session.
  - Be respectful to the teacher.
  - Be respectful to fellow students in discussions.
  - Be courteous, respectful, and civil when using discussion boards.
  - Focus on the course learning activities; it is not respectful to study for other coursework during the class session.
  - Address faculty with the appropriate title and name, i.e., Dr. (last name) or Professor (last name).
  - Address concerns about performance or course material directly with the course coordinator, facilitator, or teaching assistant.
  - Seek assistance with academic or personal difficulties as soon as possible.

## Communications

### Discussion Board Policy

The purpose of the discussion board is to provide a venue for you to enhance your learning. This is accomplished by having a thread for each module where you can post questions to the course coordinators. (A thread is a single link that is devoted to a topic.) The discussion board is also a place where your instructors may post virtual cases for you to work up.

Such interaction on the discussion boards with the instructors will allow you to clarify your questions and apply what you are learning in other parts of the course. The goal of these discussions is to help you learn.

### Students Netiquette on the Discussion Board:

1. Post your comment on the correct discussion thread. If you have a question about A1 (Unit A - Module 1), post it in the discussion thread for A1 and not the B1 thread.
2. The discussion board is not a place to complain. Complaints should instead be directed directly to the instructor via email. This allows the primary course coordinator to quickly address your concern without causing distraction to other students who have limited time and want to focus on learning.
3. Use "netiquette." If you have never learned "netiquette" - please visit the following URL: <http://www.albion.com/netiquette/corerules.html> If you follow the rules of netiquette described in this URL, you will avoid posting an embarrassing or inappropriate comment.
4. The discussion board has been designed to allow you a place to ask further questions on the material to clarify any confusion, gain a deeper understanding of the material, or ask general course questions. A question you might see on a discussion board is "What do I need to study for the exam?" Please reflect on how this question can be perceived by your lecturing faculty as well as your fellow classmates. Rewording the question to address a specific topic would be more appropriate. For example, "Dr. XX, you listed numerous side effects for drug XX on slide XX. Of those, what are the most relevant that we could expect to occur and monitor for in clinical practice." The type of material that is covered in these classes is material that is important for patient care. All of this material is important. There are variations in courses, but please make use of your syllabus since there might be guidance on how to prepare for various exams in your classes.

5. In most situations, lectures are released as planned by the course coordinators. Clarifying at the beginning of a semester on the planned release date/time, if not posted in the syllabus, is appropriate. Continual posts on the discussion board on weekly basis can become overwhelming for the course coordinator as well as your fellow students.

**Faculty member Response Time:**

1. The Course Coordinators/instructors will work to respond to postings within 24 hours of the posting between Monday and Friday 12N. Responses on weekends and holidays will be sporadic. (On weekends when assignments are due, students are advised to post questions before 12Noon on Friday.)

**Email Communications:**

1. When communicating with faculty via email, the subject line needs to include the course number & title.
2. At the end of the email, in addition to listing your name, list your academic year and campus/site.

**Question/Answer sessions in live class sessions:**

Time is usually reserved at the end of the class for questions regarding the material to clear up any confusion or expand on material covered in the particular section. This is a valuable time for all students and since time is limited, the questions should focus on the topics at hand. Questions such as, "What material will be covered on an upcoming exam?" or, "Do we need to know dosing for the exam?" are inappropriate during this time period. In our profession, all material is important. However, if this question does need to be asked, please consider using the discussion board to clarify any specific exam questions.

**Religious Holidays**

Please see the University policy on attendance and religious holidays:

<http://www.registrar.ufl.edu/catalog/policies/regulationattendance.html#religious>.

**Counseling and Wellness Center**

Students who are experiencing issues and events that could adversely affect academic performance and personal health should be encouraged to meet with the course coordinator or facilitator or appropriate administrator for guidance. Students in the Gainesville area may contact the UF Counseling and Wellness Center for Gainesville students (352-392-1575; <http://www.counseling.ufl.edu>). Students outside the Gainesville area may obtain similar contact information from the campus/program administrator.

**Emergencies**

Call the University Police Department for emergencies: 392-1111 or 9-1-1

**Student Crisis**

Students who are experiencing issues and events are also encouraged to contact their local crisis center. For Alachua County the Crisis Center number is 352-264-6789; for Jacksonville and Duval County 904-632-0600 and toll free for Northeast Florida at 1-800-346-6185; for Orlando 407-425-2624; and, for St. Petersburg 727-344-5555 and Tampa 211 or 813-234-1234.

The following national call numbers are also available for students who reside outside of the main COP campuses: a) 1-800-273-8255, and b) 1-800-784-2433.

**How to Access Services for Student Success**

Students who need guidance for course success or who are having academic difficulty should contact their advisor/facilitator or Campus Director/Senior Associate Dean for assistance.

**Faculty Lectures/Class Activities/Presentations Download Policy**

Photography, Audio-visual recording, and transmission/distribution of classroom lectures and discussions is prohibited unless there is expressed written permission. Recorded lectures and class sessions are authorized solely for the purpose of individual or group study with other UF College of Pharmacy students enrolled in the same class. Such recordings may not be reproduced, shared, or uploaded to publicly accessible web environments. Students who do not adhere to this policy will be considered to be breaching COP copyrights and/or FERPA law.

Please see the following URL for COP Policies:

<http://file.cop.ufl.edu/studaff/policies/General%20COP%20Course%20Policies.pdf>

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## Appendix A. Faculty and Staff: Who to Contact

### Academic Coordinator:

1. Questions about dates, deadlines, meeting place
2. Availability of handouts and other course materials
3. Assignment directions
4. Questions about grade entries gradebook (missing grades, wrong grade)
5. Assistance with ExamSoft®

### Teaching Partnership Leaders

1. Issues related to course policies (absences, make up exams, missed attendance)
2. Questions about grades
3. Concerns about performance
4. Guidance when there are performance problems (failing grades)
5. General questions about content

### Other Teaching Partnership Faculty Members

1. Questions about specific content

### Technical Support:

Contact the College of Pharmacy MediaHelp Desk for assistance with course-related technical issues (e.g., Canvas access, video access, printing of documents). The MediaHelp Desk may be reached via the following:

**Phone:** 352-273-6281 (9am-4PM ET)

**Email:** [mediahelp@cop.ufl.edu](mailto:mediahelp@cop.ufl.edu) (response is delayed outside of M-F 9AM-4PM ET)

Contact the University of Florida Computing Help Desk for addresses issues related to:

1. Gatorlink accounts,
2. Gatorlink email,
3. myUFL, and
4. ISIS.

**Phone:** (352)-392-4357



## Appendix B. Teaching Partners

Name	Email	Phone
Jane Aldrich, Ph.D.	JAldrich@cop.ufl.edu	352-273-8708
William (Bill) Allen, J.D, M.Div.	wmallen@ufl.edu	352-273-5155
Sihem Bihorel, Ph.D., Pharm.D., M.S.	sihem.bihorel@ufl.edu	407-313-7037
Jurgen Bulitta, Ph.D.	jbulitta@cop.ufl.edu	407-313-7010
Larisa Cavallari, Pharm.D.	LCavallari@cop.ufl.edu	352-273-8245
Stacey Curtis, Pharm.D.	SCurtis@cop.ufl.edu	352-273-6228
Rhonda DeHoff, Pharm.D., M.S.	Dehoff@cop.ufl.edu	352-273-6184
Yousong Ding, Ph.D.	yding@cop.ufl.edu	352-273-7742
Michelle Farland, Pharm.D.	mfarland@cop.ufl.edu	352-273-6293
Charles Frazier, Ph.D.	frazier@cop.ufl.edu	352-273-7686
Randy Hatton, Pharm.D.	rhatton@cop.ufl.edu	352-294-5785
Guenther Hochhaus, Ph.D.	hochhaus@cop.ufl.edu	352-273-7861
Robert Huigens, Ph.D.	RHuigens@cop.ufl.edu	352-273-7718
Maureen Keller-Wood, Ph.D.	kellerwd@cop.ufl.edu	352-273-7687
Denise Klinker, Pharm.D.	DKlinker@cop.ufl.edu	352-273-6227
Ken Klinker, Pharm.D.	klinkkp@cop.ufl.edu	352-265-0111 ext. 45892
Eric Krause, Ph.D.	EKrause@cop.ufl.edu	352-273-6977
Caitrin McDonough, Ph.D.	cmcdonough@cop.ufl.edu	352-273-6435
Shannon Miller, Pharm.D.	SMiller@cop.ufl.edu	407-313-7031
Carol Motycka, Pharm.D.	Motycka@cop.ufl.edu	904-244-9590
Robert Navarro, Pharm.D.	RNavarro@cop.ufl.edu	352-273-5526
Priti Patel, Pharm.D.	PPatel@cop.ufl.edu	727-394-6213
Charles Peloquin, Pharm.D.	peloquin@cop.ufl.edu	352-273-6266
Teresa Roane, Pharm.D.	TRoane@cop.ufl.edu	352-273-9692
Karen Sando, Pharm.D.	KSando@cop.ufl.edu	352-273-6224
Anzeela Schentrup, Pharm.D., Ph.D.	schena@shands.ufl.edu	352-265-8309
Richard Segal	segal@ufl.edu	352-273-6265
Katie Vogel Anderson, Pharm.D.	kvanderson@cop.ufl.edu	352-273-6413
Stacy Voils, Pharm.D., M.S.	SVoils@cop.ufl.edu	352-294-5276
Yu-Jung (Jenny) Wei, Ph.D.	jenny.wei@cop.ufl.edu	352-294-5340

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## Appendix C. Student Guide for Case Studies

Students are accountable for recalling and applying content learned in all prior courses.

Case studies will also require application of one or more of the following Transcending Concepts:

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Evidence-based practice | <input type="checkbox"/> Informatics                     | <input type="checkbox"/> Problem solving       |
| <input type="checkbox"/> Social considerations   | <input type="checkbox"/> Behavioral considerations       | <input type="checkbox"/> Communications        |
| <input type="checkbox"/> Law and ethics          | <input type="checkbox"/> Health-wellness                 | <input type="checkbox"/> Drug delivery systems |
| <input type="checkbox"/> Pharmacokinetics        | <input type="checkbox"/> Personalized medicine           | <input type="checkbox"/> Special populations   |
| <input type="checkbox"/> Self-care               | <input type="checkbox"/> Interprofessional collaboration | <input type="checkbox"/> Medication safety     |
| <input type="checkbox"/> Pharmacoeconomics       | <input type="checkbox"/> Population-based care           |  |

### **COLLECT (SO: Subjective and Objective Data)**

Students/teams must be able to gather subjective and objective information about the patient in order to understand the relevant medical and medication history and clinical status of the patient. Data are collected by simulated patient interview, medical record review, pharmacy profile review, and/or communication with other members of the healthcare team. Physiological, psychological, and sociological variables are expected to be considered.

1. Patient Name:
2. Main Disease Focus:
3. Type of Encounter/Setting [new patient, established, ED, hospital, clinic, refill, etc]:
4. Opening Statement from the Patient:
5. If patient is “unavailable” identify who represents the patient:
6. Age:
7. Gender:
8. Marital Status:
9. Height/Weight:
10. Socioeconomic Status:
11. Language:
12. Appearance:
13. Dress:
14. Other Family Members:
15. Patient History [What has been happening?]:
16. Chief Complaint(s):
17. Symptoms:

- 
18. Characteristics:
  19. History/Onset/Acuity/Severity/Progression/Location/Aggravating Factors/Relieving Factors:
  20. Actual/Feasible Diagnoses:
  21. Current Medical Problems:
  22. Relevant Past Medical History:
  23. Medication List [Name, strength, dose, interval, duration, indication [if known], persistence, adherence]:
    - a. -From Patient
    - b. -From Pharmacies
    - c. -From Primary Care Physician
    - d. -From Specialty Physicians/Hospitalization/ED/Clinic
    - e. -Nonprescription
    - f. -Dietary Supplements
  24. Reasons for nonpersistence or adherence:
  25. Information that the patient gives about their medications:
  26. Immunization History:
  27. Smoking History:
  28. Alcohol Use/History:
  29. Caffeine Intake:
  30. Illicit Drug Use:
  31. Sleep Habits:
  32. Pertinent Laboratory Findings:
  33. Pertinent Vital Signs:
  34. Pertinent Physical Exam Findings:
  35. Other Diagnostic Tests:
  36. Allergies [include rationale]:
  37. Intolerance [include history]:
  38. Patient's Affect:
  39. Patient's Attitude/Agenda:
  40. Patient Mannerisms/Nonverbal Behaviors:

Students/teams will also be expected to ask questions during case discussions or simulated patient encounters to gather information not readily available in the chart/written case document.

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***ASSESS (A: Assessment; Ask Clinical Questions; Acquire the Best Evidence; and Appraise)***

Students/teams will be expected to assess the information collected and the clinical effects of the patient's therapy in the context of the patient's overall health goals in order to identify and prioritize problems and achieve optimal care.

1. This evaluation will require:
  - i. understanding, explaining, and assessing the patient's health status;
  - ii. interpretation of physical and patient assessments;
  - iii. assessment of each medication for appropriateness, effectiveness, safety, economics, persistence, and adherence;
  - iv. assessment of health and functional status, risk factors, health data, cultural factors, health literacy, access to medications, and other aspects of care;
  - v. assessment of immunization status and need for preventative care;
  - vi. integration of knowledge, clinical experience, and patient data to formulate and test hypotheses about the etiology of medication-related problems; and,
  - vii. identification of potential and actual medication-related problems.

Students/teams will also be expected to accomplish the following:

1. Outline a list of Drug-related Problems.
2. Explain Each Basic Science Concept Emphasized:
  - a. **Pathophysiology:**
    - i. Describe the pathophysiology of disease state(s) and identify appropriate drug targets (cellular/molecular), biochemical processes, and organ changes for therapeutic intervention.
    - ii. Specifically, for a given disease state: describe the basic pathophysiology of the disease including an explanation of the abnormal processes and the resulting disease signs and symptoms; outline risk factors and/or diagnostic indicators (e.g., lab values, diagnostic test results); and, determine classes of drugs that will treat the disease state and ameliorate the underlying pathophysiology and signs/symptoms.
  - b. **Pharmacology:**
    - i. Compare and contrast the therapeutic and adverse effects of drug classes that are appropriate for treating the disease state.
    - ii. Describe major pathways for metabolism and the pharmacological consequences of metabolism.
    - iii. Identify the most common/serious drug interactions and adverse effects. Identify important precautions and contraindications.
    - iv. Compare and contrast the therapeutic and adverse effects of drugs within a given class.
    - v. Discuss significant pharmacodynamic considerations.

- 
- c. **Medicinal Chemistry:**
    - i. Apply knowledge about structure-activity relationships and cellular/molecular mechanisms of action to identify drug classes that are appropriate for treatment of the disease state.
    - ii. Specifically, for each drug class: Identify the relevant therapeutic targets and explain the mechanism(s) of action.
  - d. **Pharmaceutics:**
    - i. Recommend any unique storage, handling, or use requirements to ensure patient safety and clinical efficacy.
    - ii. Discuss significant pharmacokinetic considerations (e.g., effect of food of absorption, influence of route of administration on onset, dose, elimination, etc).
  3. Explain Each Transcending Concept Emphasized in this Case:
  4. Discuss Drug Information Questions/PICOT Statements Relevant to this Case and accurate/complete responses for each question:
    - a. Patient-Population-Problem/Intervention/Comparison/Outcomes/Time Frame
  5. Summarize the Best Evidence for Each Problem/Question:
    - a. -Search Strategy
    - b. -Guidelines
    - c. -Landmark Clinical Trials
    - d. -Best Available Evidence [with Limitations]
  6. Identify important Literature Appraisal Issues.

### **PLAN (P: Plan)**

Students/teams will be expected to develop an individualized **patient-centered** care plan in collaboration with the patient [and/or their caregiver], other healthcare professionals, and other interested parties.

1. Specific and General Therapeutic Goals
  - a. Consider clinical outcomes in the context of the patient's overall health and access to care
2. Therapeutic Plan
  - a. Develop an individualized patient-centered plan in collaboration with the patient, caregiver, in collaboration with other healthcare professionals, and other interested parties.
    - i. Therapeutic Alternatives: Evaluate alternatives for the patient before establishing the plan
    - ii. Develop the Therapeutic Plan:

1. Address medication-related problems and optimizes therapy considering the goals and desires of the patient;
  2. application of established guidelines, evidence-based medicine, and population-based treatment plans;
  3. accurate and patient-specific dosing (including dosage adjustment for renal/hepatic dysfunction, starting dose, maximum doses, timing of doses, effects of food on absorption, route of administration, and pharmacokinetic design for narrow therapeutic index drugs;
  4. parameters for monitoring response and frequency of monitoring;
  5. parameters for monitoring adverse effects and frequency of monitoring;
  6. plan for patient counseling/education;
  7. plan for patient counseling/education; and
  8. Considerations for care continuity, including follow-up and transitions of care as appropriate.
3. Patient/Caregiver Engagement: Involve the patient through education, empowerment, and self-management

### **IMPLEMENT (Apply)**

Students/teams will be expected to implement the care plan in a simulated situation that requires collaboration with the patient/caregiver, other healthcare professionals, and other interested parties.

1. When implementing the care plan, the following are to be accomplished:
  - a. medication and health-related problems are addressed;
  - b. preventative care including vaccine administration are provided;
  - c. medication therapy is initiated, modified, discontinued, or administered as authorized;
  - d. education and self-management training is provided to the patient/caregiver;
  - e. refers and provides transitions of care as needed;
  - f. barriers are identified and addressed, when possible; and, schedules follow-up care as needed to achieve goals of therapy.

### **FOLLOW-UP, MONITOR, & EVALUATE**

Students/teams are expected to monitor and evaluate the effectiveness of their care plan and modify the plan in collaboration with other health care professionals and the patient/care giver.

1. The following are continually monitored and evaluated:
  - a. medication appropriateness, effectiveness, and safety and patient adherence through available data, biometric test results and patient feedback;
  - b. clinical endpoints that contribute to the patient's overall health; and, outcomes of care, including progress toward or achievement of goals.
2. Specific Recommendations for Follow-up and Monitoring
3. List of Quality Improvement Outcomes

- 
- a. Process Measures
  - b. Clinical Outcomes

### **COLLABORATE**

Students/teams will be expected to role play collaborating with patients, caregivers, other healthcare providers, and interested parties when taking care of patients.

### **COMMUNICATE**

Student/teams will be expected to succinctly communicate with patients/caregivers, other healthcare team members, and other interested parties (policy makers, employers, insurance companies, payers) throughout the patient care process.

Examples of typical communications are:

1. Important Communication Points and Methods for Data Collection
2. Important Communication Points for Assessment
3. Collaborate with Team Members: Specific therapeutic approaches for individual patients based on scientifically and logically validated assessment of the patient's health care needs and an ethical consideration of the patient's health care goals and desires
4. Communicate the Assessment and Plan via Face-to-face, Telephone, and/or Written documentation
5. Communicate Benefits, Risks, Economics, & Other Factors to:
  - a. Patient/Family
  - b. Prescribers
  - c. Policy Makers
  - d. Payers (Insurance Companies, PBMs, Employers, and/or Hospitals)

### **DOCUMENT**

Students/teams will be expected to create written patient care notes (SOAP notes, intervention notes, consultation notes) using the standardized formats learned in prior classes and this course.

1. SOAP notes are expected to include the following elements
  - a. Subjective
    - i. Clear
    - ii. Complete Pertinent Information
    - iii. Only Pertinent Information
  - b. Objective
    - i. Verified Medication List
    - ii. Clear
    - iii. Complete Pertinent Information
    - iv. Only Pertinent Information
  - c. Assessment
    - i. Complete and Prioritized List of Medication-related Problems

- ii. Therapeutic Goals
  - 1. Alternatives are Accurately Presented
- iii. Findings Synthesized with Enough Depth to Explain but are a Concise Assessment
- iv. Clear Positions
- d. Plan
  - i. Pertinent Plan with Necessary Instructions
  - ii. Balances Benefits, Risks, and Costs
  - iii. Education and Follow-up is Collaborative and Considers Systems
  - iv. Specific Monitoring Plan
- 2. Responses to Drug Information Questions in the PICOT Format with Summary of the Evidence
  - a. Limitations of the Evidence Stated



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## Appendix D. Comprehensive Assessment of Team Member Effectiveness (CATME)

This web-based instrument collects data on team member effectiveness in five areas research has shown to be important.

1. Contributing to the team's work
2. Interacting with teammates
3. Keeping the team on track
4. Expecting quality
5. Having relevant knowledge skills and abilities.

The CATME Peer Evaluation instrument is a behaviorally anchored rating scale that describes behaviors typical of various levels of performance in each of the above five categories. Raters select the category of behaviors that most closely matches the behavior of each student on their team (including themselves). The CATME website shows the instrument and allows faculty and students to practice using the system by rating fictitious team members.

A special feature is helping professors understand what is happening in student teams. The system alerts faculty to exceptional conditions that are rating patterns that warrant attention.

- Low—a student who rates him/herself as ineffective and who also receives “ineffective” ratings by teammates.
- Overconfident—a student rated as “ineffective” by teammates but rates him/herself as much more effective.
- High—a student who is rated as highly effective according to both teammate and self ratings.
- Underconfident—a student rated as highly effective by teammates but who under-rates her/himself.
- Manipulator—a student who rates him/herself as highly effective and who rates teammates as ineffective in disagreement with teammates. Such a student may be trying to influence the distribution of grades unfairly.
- Conflict—a team in which there is considerable disagreement among the various raters about the effectiveness of an individual student.
- Clique—a team in which cliques appear to have formed. The ratings show that subsets of the team rate members of their subset high and members of other subsets low.

Some of these conditions have more than one explanation. A student flagged as a “manipulator” might actually have performed a disproportionately large amount of the work on the project even though they worked to engage their teammates in the process. Thus, an instructor's involvement and judgment are critical when exceptional conditions are flagged. Though the formal study of these exceptions has not been completed, faculty using the system have reported that both the clique and conflict conditions have accurately provided early warnings of those condition

## Comprehensive Assessment of Team Member Effectiveness—Behaviorally Anchored Rating Scale (BARS) Version

Your name						<p>← Write the names of the people on your team including your own name.</p> <p><u>This self and peer evaluation asks about how you and each of your teammates contributed to the team during the time period you are evaluating. For each way of contributing, please read the behaviors that describe a "1", "3," and "5" rating. Then confidentially rate yourself and your teammates.</u></p>
Contributing to the Team's Work	5	5	5	5	5	<ul style="list-style-type: none"> <li>Does more or higher-quality work than expected.</li> <li>Makes important contributions that improve the team's work.</li> <li>Helps to complete the work of teammates who are having difficulty.</li> </ul>
	4	4	4	4	4	Demonstrates behaviors described in both 3 and 5.
	3	3	3	3	3	<ul style="list-style-type: none"> <li>Completes a fair share of the team's work with acceptable quality.</li> <li>Keeps commitments and completes assignments on time.</li> <li>Fills in for teammates when it is easy or important.</li> </ul>
	2	2	2	2	2	Demonstrates behaviors described in both 1 and 3.
	1	1	1	1	1	<ul style="list-style-type: none"> <li>Does not do a fair share of the team's work. Delivers sloppy or incomplete work.</li> <li>Misses deadlines. Is late, unprepared, or absent for team meetings.</li> <li>Does not assist teammates. Quits if the work becomes difficult.</li> </ul>
Interacting with Teammates	5	5	5	5	5	<ul style="list-style-type: none"> <li>Asks for and shows an interest in teammates' ideas and contributions.</li> <li>Improves communication among teammates. Provides encouragement or enthusiasm to the team.</li> <li>Asks teammates for feedback and uses their suggestions to improve.</li> </ul>
	4	4	4	4	4	Demonstrates behaviors described in both 3 and 5.
	3	3	3	3	3	<ul style="list-style-type: none"> <li>Listens to teammates and respects their contributions.</li> <li>Communicates clearly. Shares information with teammates. Participates fully in team activities.</li> <li>Respects and responds to feedback from teammates.</li> </ul>
	2	2	2	2	2	Demonstrates behaviors described in both 1 and 3.
	1	1	1	1	1	<ul style="list-style-type: none"> <li>Interrupts, ignores, bosses, or makes fun of teammates.</li> <li>Takes actions that affect teammates without their input. Does not share information.</li> <li>Complains, makes excuses, or does not interact with teammates. Accepts no help or advice.</li> </ul>
Keeping the Team on Track	5	5	5	5	5	<ul style="list-style-type: none"> <li>Watches conditions affecting the team and monitors the team's progress.</li> <li>Makes sure that teammates are making appropriate progress.</li> <li>Gives teammates specific, timely, and constructive feedback.</li> </ul>
	4	4	4	4	4	Demonstrates behaviors described in both 3 and 5.
	3	3	3	3	3	<ul style="list-style-type: none"> <li>Notifies changes that influence the team's success.</li> <li>Knows what everyone on the team should be doing and notices problems.</li> <li>Alerts teammates or suggests solutions when the team's success is threatened.</li> </ul>
	2	2	2	2	2	Demonstrates behaviors described in both 1 and 3.
	1	1	1	1	1	<ul style="list-style-type: none"> <li>Is unaware of whether the team is meeting its goals.</li> <li>Does not pay attention to teammates' progress.</li> <li>Avoids discussing team problems, even when they are obvious.</li> </ul>
Expecting Quality	5	5	5	5	5	<ul style="list-style-type: none"> <li>Motivates the team to do excellent work.</li> <li>Cares that the team does outstanding work, even if there is no additional reward.</li> <li>Believes that the team can do excellent work.</li> </ul>
	4	4	4	4	4	Demonstrates behaviors described in both 3 and 5.
	3	3	3	3	3	<ul style="list-style-type: none"> <li>Encourages the team to do good work that meets all requirements.</li> <li>Wants the team to perform well enough to earn all available rewards.</li> <li>Believes that the team can fully meet its responsibilities.</li> </ul>
	2	2	2	2	2	Demonstrates behaviors described in both 1 and 3.
	1	1	1	1	1	<ul style="list-style-type: none"> <li>Satisfied even if the team does not meet assigned standards.</li> <li>Wants the team to avoid work, even if it hurts the team.</li> <li>Doubts that the team can meet its requirements.</li> </ul>
Having Relevant Knowledge, Skills, and Abilities	5	5	5	5	5	<ul style="list-style-type: none"> <li>Demonstrates the knowledge, skills, and abilities to do excellent work.</li> <li>Acquires new knowledge or skills to improve the team's performance.</li> <li>Able to perform the role of any team member if necessary.</li> </ul>
	4	4	4	4	4	Demonstrates behaviors described in both 3 and 5.
	3	3	3	3	3	<ul style="list-style-type: none"> <li>Has sufficient knowledge, skills, and abilities to contribute to the team's work.</li> <li>Acquires knowledge or skills needed to meet requirements.</li> <li>Able to perform some of the tasks normally done by other team members.</li> </ul>
	2	2	2	2	2	Demonstrates behaviors described in both 1 and 3.
	1	1	1	1	1	<ul style="list-style-type: none"> <li>Missing basic qualifications needed to be a member of the team.</li> <li>Unable or unwilling to develop knowledge or skills to contribute to the team.</li> <li>Unable to perform any of the duties of other team members.</li> </ul>

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For further information on the design of the CATME Peer Evaluation instrument, research supporting its use, or to request an account, go to [www.CATME.org](http://www.CATME.org). The instrument is copyrighted. CATME Peer Evaluation is part of the CATME SMARTER Teamwork system, which includes other team-support tools. The CATME online interface was developed by Deer Run Associates. This material is based upon work supported by NSF Awards 0243254 and 0817403.