

# **Competency Statements, Terminal Objectives, and Enabling Objectives for the Doctor of Pharmacy Degree Program**

**The University of Georgia  
College of Pharmacy**

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## Competency Statement 1

**Design, implement, monitor, evaluate, modify, and discontinue patient pharmacotherapy through direct patient interactions and evidence-based principles to ensure effective, safe, and economical patient care.**

- TO 1.1 (Evaluating) Integrate patient, disease, and drug data to determine desired therapeutic outcomes for a patient.
  - EO 1.1.1 (Evaluating) Formulate a patient-specific database to support drug therapy decisions for the patient.
    - EO 1.1.1.1 (Analyzing) Use knowledge of the organization and contents of patient medical charts, patient profiles, or databases to gather pertinent information for constructing a patient-specific database.
    - EO 1.1.1.2 (Precision) Interact directly with the patient or patient's representative to obtain pertinent information for a patient-specific database.
      - EO 1.1.1.2.1 (Applying) Use effective interviewing skills to obtain pertinent information from the patient or the patient's representative for a patient-specific database\*<sup>1</sup>.
      - EO 1.1.1.2.2 (Analyzing) Utilize principles of motivational interviewing to determine a patient's willingness/readiness to adhere to treatment regimens.
      - EO 1.1.1.2.3 (Analyzing) Use effective interviewing skills to assess an individual patient's health literacy, functional status, and attitudes toward drug therapy.
    - EO 1.1.1.3 (Applying) Use effective questioning techniques to obtain pertinent information from other health care providers for a patient-specific database.
    - EO 1.1.1.4 (Articulation) Perform targeted physical assessment for drug-therapy decision making.
  - EO 1.1.2 (Evaluating) Generate a prioritized patient-specific problem list.
    - EO 1.1.2.1 (Understanding) Explain the pathophysiology of common disease states.
    - EO 1.1.2.2 (Understanding) Explain the pharmacologic action of commonly prescribed drugs.
    - EO 1.1.2.3 (Understanding) Explain the indications for commonly prescribed drugs.
    - EO 1.1.2.4 (Understanding) Explain the pharmacokinetic and pharmacodynamic properties of commonly prescribed drugs.

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\*Pertinent information includes an accurate and thorough medication history, including current prescription and nonprescription medications, complementary and alternative therapies, preventative therapies (e.g., immunizations), and illicit/recreational drug use (alcohol and tobacco); past medications and reasons for discontinuing; allergies and adverse drug events; adherence to current medications; and insurance coverage of prescription medications.

- EO 1.1.2.5 (Understanding) Explain the pharmacogenomics of common classes of drugs.
  - EO 1.1.2.6 (Understanding) Explain the chemical properties of commonly prescribed drugs.
  - EO 1.1.2.7 (Remembering) Describe factors to consider when evaluating the cost of a patient's drug therapy.
  - EO 1.1.2.8 (Understanding) Discuss the effects of insurance and institutional policies on making decisions about a patient's drug therapy.
  - EO 1.1.3.9 (Understanding) Describe common laboratory tests used in making a diagnosis of a medical problem or in designing a pharmacotherapeutic regimen.
  - EO 1.1.2.10 (Analyzing) Interpret results of common laboratory tests related to drug therapy issues.
  - EO 1.1.2.11 (Understanding) Describe the potential influence of physiologic processes (e.g., aging), diseases, and drugs on common laboratory tests.
- EO 1.1.3 (Applying) Generate a list of specific therapeutic outcomes for a patient.
- EO 1.1.3.1 (Understanding) Discuss the prognosis of common medical problems relative to cure, management, or palliation.
  - EO 1.1.3.2 (Understanding) Discuss the role of drug therapy with regard to prognosis for common disease states.
  - EO 1.1.3.3 (Precision) Collaborate with other health care providers to identify and prioritize health related problems.
  - EO 1.1.3.4 (Applying) Determine the patient's preventative health care needs (e.g., immunizations).
- EO 1.1.4 (Applying) Develop an effective procedure to document a patient's desired therapeutic outcomes.
- TO 1.2 (Evaluating) Formulate a pharmacotherapeutic plan to achieve desired therapeutic outcomes.
- EO 1.2.1 (Understanding) Explain the usual dose, dosage form, route of administration, dosing schedule, and duration of therapy for a given drug in a pharmacotherapeutic regimen.
  - EO 1.2.2 (Understanding) Discuss drug-drug, drug-food, and drug-lab interactions for commonly prescribed drugs.
  - EO 1.2.3 (Analyzing) Discuss patient-specific factors that influence the selection of a drug, dosage form, route, schedule, and duration of therapy.
    - EO 1.2.3.1 (Understanding) Discuss those pharmacogenetic factors that influence the selection of a drug, dose, or dosing interval.
    - EO 1.2.3.2 (Remembering) List drugs and drug classes which show genetic variability in their effectiveness or pharmacokinetic characteristics.

EO 1.2.3.3 (Remembering) List diseases which, due to a genetic mutation, have a specific drug regimen.

EO 1.2.3.4 (Applying) Demonstrate the use of pharmacogenetic/genomic data to design an effective drug regimen for a patient.

EO 1.2.4 (Creating) Use pharmacoepidemiology data to design an effective drug regimen for a patient.

EO 1.2.4.1 (Applying) Use principles of pharmacoepidemiology to identify patients or patient populations which would most benefit from population data driven drug regimens.

EO 1.2.4.2 (Applying) Use pharmacoepidemiology data to identify patients or patient populations which might be at increased risk for side effects or adverse drug reactions.

EO 1.2.4.3 (Analyzing) Assess medications for appropriateness, effectiveness, safety, and adherence.

EO 1.2.5 (Applying) Modify the usual drug, dose, dosage form, route of administration, schedule, and/or duration of therapy based on patient-specific factors.

TO 1.3 (Evaluating) Design a plan to implement a pharmacotherapeutic regimen.

EO 1.3.1 (Analyzing) Identify individuals to whom a recommended pharmacotherapeutic regimen must be communicated.

EO 1.3.2 (Analyzing) Identify information to be communicated to the patient or to other health care providers in order to implement a pharmacotherapeutic regimen.

EO 1.3.3 (Understanding) Explain an organized health care setting's policies and procedures pertaining to a pharmacist's writing orders, prescriptions, or progress notes and making drug substitutions.

EO 1.3.4 (Precision) Communicate preventive health care needs to patients based on current accepted guidelines.

EO 1.3.4.1 (Precision) Administer appropriate immunizations accurately.

TO 1.4 (Creating) Formulate a plan to monitor a pharmacotherapeutic regimen.

EO 1.4.1 (Understanding) Discuss evidence-based pharmacologic and non-pharmacologic recommendations in a patient's pharmacotherapy plan.

EO 1.4.2 (Understanding) Discuss appropriate sources of information for obtaining desired monitoring data.

EO 1.4.3 (Applying) Use a knowledge of patient-specific data to define desirable values for each monitoring parameter.

EO 1.4.4 (Applying) Use a knowledge of patient-specific and drug-specific data to design a schedule for the collection of data for a monitoring plan.

EO 1.4.5 (Analyzing) Determine those patient and laboratory parameters which measure the achievement of desired therapeutic outcomes.

EO 1.4.5.1 (Analyzing) Assess the patient's adherence to prescribed pharmacologic and

nonpharmacologic therapies.

- EO 1.4.6 (Creating) Develop a system to identify a patient's drug-related problems.
  - EO 1.4.6.1 (Understanding) Discuss general classes of common drug-related problems.
  - EO 1.4.6.2 (Analyzing) Determine those patient and laboratory parameters which measure adverse drug reactions or interactions.
  - EO 1.4.6.3 (Analyzing) Use effective interviewing skills to Identify potential or existing drug-related problems in a patient's pharmacotherapy plan related to prescription and nonprescription drugs as well as dietary supplements, alternative medicines, and illicit drugs.
  - EO 1.4.6.4 (Understanding) Discuss patient-specific laboratory parameters to identify potential or existing drug-related problems.
  - EO 1.4.6.5 (Articulation) Perform targeted physical assessment to identify existing drug-related problems.
- EO 1.4.7 (Evaluating) (Creating) Develop a plan to resolve a patient's drug-related problems.
  - EO 1.4.7.1 (Evaluating) Formulate strategies to improve individual medication adherence to prescribed therapies.
    - EO 1.4.7.1.1 (Understanding) Describe effective tools to enhance medication regimen adherence.
  - EO 1.4.7.2 (Applying) Use pharmacoepidemiology data to modify drug regimens for a patient or patient population.
- EO 1.4.8 (Evaluating) Develop an effective procedure to document a monitoring plan.
  - EO 1.4.8.1 (Applying) Use effective communication skills to educate the patient or the patient's representative about the monitoring plan.
  - EO 1.4.8.2 (Analyzing) Assess the patient's or patient representative's understanding of the monitoring plan.
  - EO 1.4.8.3 (Analyzing) Assess the patient's willingness to comply with the pharmacotherapy plan.
  - EO 1.4.8.4 (Applying) Create a personal medication list for the patient.
- TO 1.5 (Creating) Assess the outcomes of implementing a pharmacotherapeutic regimen.
  - EO 1.5.1 (Analyzing) Differentiate subtherapeutic, therapeutic, or undesired responses to a pharmacotherapeutic regimen.
  - EO 1.5.2 (Creating) Conclude if patient outcomes require the re-design of a pharmacotherapeutic regimen.
  - EO 1.5.3 (Creating) Conclude if patient outcomes require the resetting of desired therapeutic outcomes.
  - EO 1.5.4 (Creating) Conclude if patient outcomes require the re-design of a monitoring plan.
  - EO 1.5.5 (Applying) Develop an accepted procedure to document changes in a patient's

desired therapeutic outcomes, pharmacotherapeutic regimen, or monitoring plan.

EO 1.5.5.1 (Understanding) Explain the processes for monitoring and reporting adverse drug reactions.

EO 1.5.6 (Understanding) Discuss federal, state, and institutional regulations that promote collaborations and/or practice agreements with physicians and other health care providers.

EO 1.5.6.1 (Understanding) Discuss drug selection, initiation, modification, discontinuation, and administration as permitted under collaborations and/or practice agreements.

TO 1.6 (Applying) Use principles of medication reconciliation to coordinate the transition of the patient to another level of care or location for health care.

EO 1.6.1 (Understanding) Discuss strategies to prevent medication errors in the transition of the patient to another level of care or location for health care

## Competency Statement 2

### Manage and supervise the preparation of medications and drug products.

- TO 2.1 (Creating) Determine the appropriateness of a drug order or prescription in relation to patient and disease-specific factors.
- EO 2.1.1 (Analyzing) When given a drug order or prescription, identify the medical problem for which a drug has been prescribed.
    - EO 2.1.1.1 (Remembering) List the indications for commonly prescribed drugs.
    - EO 2.1.1.2 (Applying) Use appropriate resources to identify the indications for a prescribed drug.
    - EO 2.1.1.3 (Analyzing) Select patient data that are pertinent to evaluating a drug order or prescription.
    - EO 2.1.1.4 (Applying) Use available resources (e.g., patient profile, medical record, patient/caregiver interview) efficiently to create a patient-specific database.
    - EO 2.1.1.5 (Understanding) Discuss patient and disease factors that influence drug or drug product selection (e.g., allergy, disease state, medication history, or economic considerations).
  - EO 2.1.2 (Evaluating) Formulate appropriate action when the use of a drug is contraindicated or questioned.
    - EO 2.1.2.1 (Applying) Effectively communicate information and options to prescribers or patients in order to influence action to avoid a potential drug problem.
    - EO 2.1.2.2 (Applying) Use effective questioning techniques to verify a prescriber's intent in regard to contraindicated or questioned drug orders or prescriptions.
    - EO 2.1.2.3 (Applying) Use appropriate resources to identify standards, guidelines, protocols, or algorithms that verify the appropriateness of a drug for a given medical condition.
- TO 2.2 (Creating) Determine the completeness and accuracy of information in a drug order or prescription.
- EO 2.2.1 (Remembering) For commonly prescribed drugs, identify the components of information required in a complete drug order or prescription.
  - EO 2.2.2 (Remembering) For commonly prescribed drugs, identify accurate information that should appear in a complete drug order or prescription.
- TO 2.3 (Creating) Determine the appropriateness of a drug order's or prescription's dose, dosage form, route of administration, and frequency of administration.
- EO 2.3.1 (Remembering) For commonly prescribed drugs, identify the drug's usual dose, dosage forms, routes of administration, and frequency of administration.

- EO 2.3.2 (Applying) Use pertinent references to determine the appropriateness of a dose, dosage form, route of administration, or frequency of administration for commonly prescribed drugs when patient characteristics require modification of standard practice.
- EO 2.3.3 (Evaluating) Formulate an appropriate action plan when the information in a drug order or prescription is incomplete or inaccurate or the prescribed drug regimen is inappropriate.
- TO 2.4 (Creating) Assess refill prescriptions or drug orders for patient adherence problems.
  - EO 2.4.1 (Understanding) Discuss the concept of nonadherence as it relates to the over- or under-utilization of medications.
  - EO 2.4.2 (Applying) Use accepted techniques for detecting patient nonadherence.
    - EO 2.4.2.1 (Applying) Use accepted techniques for detecting abuse of controlled substances.
  - EO 2.4.3 (Evaluating) Formulate an appropriate action plan when an instance of patient nonadherence with drug therapy is detected.
- TO 2.5 (Creating) Assess drug orders and prescription for potential drug-related problems.
  - EO 2.5.1 (Understanding) Discuss the characteristics of drug-drug, drug-food, drug-lab, and drug disease interactions.
  - EO 2.5.2 (Understanding) Discuss the impact of individual patient variability (e.g. weight, age, diseases, pharmacogenetics) on common types of drug-drug, drug food, drug-lab, and drug-disease interactions.
  - EO 2.5.3 (Understanding) Discuss the side effects of commonly prescribed drugs.
  - EO 2.5.4 (Understanding) Discuss the impact of individual patient characteristics and/or frequency of administration on the side effects of commonly prescribed drugs.
  - EO 2.5.5 (Understanding) Discuss the toxic risk/benefits of common drugs or drug classes.
  - EO 2.5.6 (Understanding) Discuss the risk of toxicity and manifestations of symptoms of toxicity of a drug or drug class in relation to disease and patient-specific information.
  - EO 2.5.7 (Evaluating) Formulate an appropriate action plan when a drug order or prescription presents a potential drug-related problem (e.g., drug interaction, side effect, toxic effect).
- TO 2.6 (Creating) Integrate legal requirements, ethical principles, and relevant policies to assess drug orders and prescriptions.
  - EO 2.6.1 (Remembering) Describe the state and federal laws pertaining to drug dispensing.
  - EO 2.6.2 (Remembering) Describe specific health care organization policies related to drug dispensing.



- EO 2.6.3 (Remembering) Describe ethical principles related to drug dispensing.
- TO 2.7 (Naturalization) Prepare extemporaneous dosage forms and delivery systems.
- EO 2.7.1 (Applying) Calculate the correct quantities of all ingredients to prepare pharmaceutical dosage forms.
- EO 2.7.2 (Manipulation) Accurately measure ingredients to be incorporated into a dosage form or delivery system.
- EO 2.7.3 (Understanding) Describe commonly used techniques for preparing solid, semi-solid, and liquid dosage forms.
- EO 2.7.4 (Applying) Select the appropriate equipment to prepare specified dosage forms.
- EO 2.7.5 (Manipulation) Incorporate active and inactive ingredients into a pharmaceutically elegant dosage form or delivery system.
- EO 2.7.6 (Applying) Record the compounding procedure of a drug product for future replication.
- TO 2.8 (Analyzing) Evaluate the ingredients used in the preparation or manufacture of a dosage form based on the chemical & physical properties of the drug(s) and excipients.
- EO 2.8.1 (Understanding) Explain the ingredients in a dosage form based on chemical and physical properties of the drug and excipient.
- EO 2.8.2 (Understanding) Discuss important physico-chemical properties that affect drug compatibility and stability.
- EO 2.8.3 (Understanding) Describe optimal storage conditions for a drug based on physical/chemical properties.
- EO 2.8.4 (Understanding) Describe the regulatory guidelines used to assure the quality of a dosage form.
- TO 2.9 (Applying) Use a knowledge of sterile technique to prepare sterile dosage forms or delivery systems.
- EO 2.9.1 (Understanding) Explain the principles of sterile technique.
- EO 2.9.2 (Remembering) Explain the procedure for preparing sterile products.
- EO 2.9.3 (Remembering) List commonly prepared sterile products.
- EO 2.9.4 (Understanding) Contrast various sterilization methods.
- EO 2.9.5 (Understanding) Discuss important physical and chemical properties that affect drug compatibility and stability in a sterile dosage form or delivery system.
- EO 2.9.6 (Applying) Select the components of a sterile dosage form based on compatibility/incompatibility of the drug(s) and diluent.
- EO 2.9.7 (Understanding) Describe procedures for the safe handling, preparation, and disposal of cytotoxic drugs.

- TO 2.10 (Creating) Assess drug orders and prescriptions for potential therapeutic alternatives.
- EO 2.10.1 (Understanding) Explain patient characteristics that may influence the choice of alternative drug products.
  - EO 2.10.2 (Remembering) Describe the mechanism(s) of action of a drug or drug class.
  - EO 2.10.3 (Understanding) Discuss the relationship of chemical equivalence, pharmaceutical equivalence, bioequivalence, and therapeutic equivalence as they apply to generic substitution.
  - EO 2.10.4 (Understanding) Give examples of situations in which the pharmacist should consider alternative drug therapy.
  - EO 2.10.5 (Understanding) Explain the laws and regulations that govern the selection of generic products.
  - EO 2.10.6 (Remembering) Select appropriate literature sources to determine generic equivalents.
  - EO 2.10.7 (Understanding) Discuss laws, regulations, and policies that govern the use of therapeutic equivalents.
  - EO 2.10.8 (Understanding) Describe the process used by organized health care settings to determine the therapeutic equivalence of drug products and to formulate policies for their substitution.
  - EO 2.10.9 (Remembering) Describe scientific principles used to define bioequivalence.
  - EO 2.10.10 (Applying) Select the pertinent resources to determine the bioequivalence of a given drug.
  - EO 2.10.11 (Remembering) Describe the characteristics of chemically equivalent drug products.
  - EO 2.10.12 (Applying) Select the pertinent resources to determine the chemical equivalency of a given drug.
- TO 2.11 (Applying) Select proper packaging for a drug product.
- EO 2.11.1 (Understanding) Discuss legal requirements that influence drug packaging.
  - EO 2.11.2 (Remembering) Describe physical/chemical stability properties that influence drug packaging and storage.
  - EO 2.11.3 (Understanding) Discuss patient characteristics that influence drug packaging.
- TO 2.12 (Applying) Prepare prescription labeling appropriate for a drug product.
- EO 2.12.1 (Remembering) List the components that comprise a legal prescription label.
  - EO 2.12.2 (Applying) Use common medical terminology and abbreviations correctly.
  - EO 2.12.3 (Applying) Write clear directions that are consistent with the drug order and

at the patient's level of understanding.

- EO 2.12.4 (Applying) Utilize auxiliary labels appropriate for drug product characteristics and patient-specific factors.
- TO 2.13 (Applying) When dispensing drug products, counsel patients and/or caregivers to assure adherence.
  - EO 2.13.1 (Understanding) Explain the legal responsibility for counseling when pharmacists dispense drug products.
  - EO 2.13.2 (Applying) Use effective patient counseling skills when providing information on dispensed products.
- TO 2.14 (Applying) Dispense drug products in accordance with legal requirements and professional responsibilities.
  - EO 2.14.1 (Remembering) List drug products that require inclusion of patient package insert and/or other drug information.
  - EO 2.14.2 (Understanding) Explain legal and regulatory requirements for and ethical considerations when transferring possession of drug products to the health care consumer.
  - EO 2.14.3 (Understanding) Explain legal and regulatory requirements for and ethical considerations when transferring possession of drug products to other health care providers.
- TO 2.15 (Applying) Use electronic devices to receive or transfer prescriptions and drug orders, store and access patient information, and maintain drug dispensing and inventory records.
  - EO 2.15.1 (Remembering) State legal requirements for using computers for prescription/medication order processing and patient information.
  - EO 2.15.2 (Remembering) State legal requirements for receiving or transferring prescriptions or drug orders via telephone or facsimile.
  - EO 2.15.3 (Remembering) Describe commonly available computer applications for maintaining patient information, dispensing drugs, or controlling inventory.
  - EO 2.15.4 (Applying) Operate a variety of electronic devices including computers skillfully.
- TO 2.16 (Evaluating) Devise a plan for meeting the patient's health care needs related to the patient's presenting problem.
  - EO 2.16.1 (Precision) Recommend specific nonprescription and non-drug therapies.
    - EO 2.16.1.1 (Understanding) Discuss those self-limiting disease states and conditions for which non-drug therapy is appropriate.
    - EO 2.16.1.2 (Understanding) Discuss those self-limiting disease states and conditions for which nonprescription drug therapy is appropriate.

- EO 2.16.1.3 (Understanding) Give examples of common non-drug therapies for specific medical problems.
- EO 2.16.2 (Understanding) Give examples of common nonprescription drug therapies for specific medical problems.
- EO 2.16.3 (Understanding) Identify those health care needs that should be met by health care personnel other than pharmacists.
- EO 2.16.4 (Applying) Use a knowledge of health care systems to determine the appropriate personnel or facility to meet a patient's health care needs.
- EO 2.16.5 (Creating) Assess the urgency of meeting each of a patient's health care needs.
- EO 2.16.6 (Precision) Provide appropriate information (therapeutic benefits and adverse effects) to patients on nonprescription drugs and non-drug therapy
- TO 2.17 (Evaluating) Devise a methodology for documenting recommendations based on professional and practical considerations.
  - EO 2.17.1 (Organization) Defend the need of the pharmacist to document recommendations for nonprescription drugs and non-drug therapy.
  - EO 2.17.2 (Understanding) Explain how current technology can be employed to document a pharmacist's recommendations.
- EO 2.17.3 (Remembering) Describe the types of information that should be recorded to document a pharmacist's recommendations.

### Competency Statement 3

**Communicate effectively and professionally with patients and their caregivers, the public, other health care providers, colleagues, and College of Pharmacy representatives.**

- TO 3.1 (Evaluating) Formulate empathetic responses to communications from consumers or health care providers based on using effective listening skills.
  - EO 3.1.1 (Analyzing) Identify the verbal and nonverbal components of communication.
  - EO 3.1.2 (Analyzing) Identify the cognitive and affective (i.e., thinking and feeling) information conveyed in the verbal portion of a communication.
  - EO 3.1.3 (Understanding) Explain the characteristics of an empathetic response.
  - EO 3.1.4 (Analyzing) Differentiate empathetic from nonempathetic responses in a verbal communication.
- TO 3.2 (Applying) Organize information for verbal or written communication to consumers or health care providers.
  - EO 3.2.1 (Understanding) Discuss ways to organize verbal or written information.
- TO 3.3 (Evaluating) Verbally convey information to consumers or health care providers using effective communication skills.
  - EO 3.3.1 (Analyzing) Select persons for whom providing drug information verbally is appropriate.
  - EO 3.3.2 (Analyzing) Select the appropriate level of a verbal communication based on a person's level of comprehension.
  - EO 3.3.3 (Analyzing) Select an appropriate nonverbal aid (Including computer assisted instruction) to enhance a verbal communication.
  - EO 3.3.4 (Applying) Use effective strategies to assess an individual's comprehension of verbal information.
  - EO 3.3.5 (Applying) Use effective questioning techniques to obtain needed clarification and/or additional information.
  - EO 3.3.6 (Analyzing) Identify situations which require integration of legal, ethical, professional and institution-specific information into the formulation of verbal communication.
- TO 3.4 (Evaluating) Write clear, concise information for consumers or health providers using effective writing skills.
  - EO 3.4.1 (Analyzing) Select persons for whom providing written drug information is appropriate.
  - EO 3.4.2 (Analyzing) Select the appropriate type and style of written communication based on a person's level of comprehension.
  - EO 3.4.3 (Analyzing) Identify situations which require integration of legal, ethical, professional and institution-specific information into the formulation of a written communication.
  - EO 3.4.4 (Applying) Use appropriate rules of grammar, punctuation, spelling, and language to prepare

written communications.

TO 3.5 (Applying) Use word processing software to prepare written communications for health care consumers and providers.

TO 3.6 (Applying) Use effective strategies to influence the health care behavior of consumers toward preventive care.

EO 3.6.1 (Remembering) State established health promotion and disease prevention guidelines.

EO 3.6.2 (Applying) Follow up on the provision of preventive health information to health care consumers or providers based on ethical principles and consumer desires.

## Competency Statement 4

**Retrieve, analyze, and interpret the professional, lay, and scientific literature to provide drug information to patients, caregivers, health providers, and the general public.**

- TO 4.1 (Analyzing) Discriminate between the requestor's statement of perceived need and actual need in order to clarify a drug information request.
- EO 4.1.1 (Understanding) Describe the types of data needed by the pharmacist to clarify a drug information request.
  - EO 4.1.2 (Applying) Use appropriate questioning techniques for obtaining patient, drug, and other background data relevant to a drug information request.
- TO 4.2 (Applying) Use a systematic and efficient procedure to retrieve appropriate drug information to satisfy a drug information request.
- EO 4.2.1 (Remembering) Describe the various types of drug information resources that can be used to satisfy a specific drug information request.
  - EO 4.2.2 (Applying) Use efficient methods for locating drug information in various types of resources.
  - EO 4.2.3 (Applying) Use a systematic and efficient method to collect and reference information relevant to a drug information request.
- TO 4.3 (Analyzing) Examine clinical research literature for appropriateness, accuracy, and completeness.
- EO 4.3.1 (Analyzing) Determine if a study's design is appropriate, accurate, and complete.
  - EO 4.3.2 (Analyzing) Determine if a study's methodology is appropriate, accurate, and complete.
    - EO 4.3.2.1 (Understanding) Describe common research designs and biases encountered in clinical research.
  - EO 4.3.3 (Analyzing) Determine if a study's results are appropriate, accurate, and complete.
    - EO 4.3.3.1 (Analyzing) Interpret common statistics used to describe samples and population.
    - EO 4.3.3.2 (Analyzing) Interpret common inferential statistics used in the medical literature to determine differences between samples or treatment groups.
  - EO 4.3.4 (Analyzing) Determine if a study's conclusions are appropriate, accurate, and complete.
  - EO 4.3.5 (Analyzing) Determine a study's clinical significance.
- TO 4.4 (Analyzing) Identify inaccuracies of bias in the professional, scientific, and lay literature.
- EO 4.4.1 (Analyzing) Appraise general drug information for logic of data presented.
  - EO 4.4.2 (Analyzing) Identify illogical or contradictory conclusions or summaries of secondary or tertiary sources and other drug literature.
  - EO 4.4.3 (Analyzing) Determine the quality of general drug information based on the writer's expertise and reputation.
  - EO 4.4.4 (Analyzing) Identify possible vested interests of the writer of general drug information.

- TO 4.5 (Evaluating) Integrate selected drug information to form conclusions or recommendations in answering a drug information request.
- EO 4.5.1 (Analyzing) Identify that information which is specific to a drug information request.
- TO 4.6 (Evaluating) Formulate a drug information response that is based on the requester's level of understanding.
- EO 4.6.1 (Applying) Use an understanding of audience suitability to prepare verbal or written responses to a drug information request.
- EO 4.6.2 (Applying) Write concise but thorough responses to drug information requests in an appropriate format.
- EO 4.6.3 (Applying) Communicate complete information to the requestor of drug information in an organized and concise manner.
- EO 4.6.4 (Applying) Use effective visual aids as needed to enhance an oral or written drug information response.
- EO 4.6.5 (Applying) Use effective public speaking skills to deliver drug information.
- EO 4.6.6 (Analyzing) Determine situations where follow-up drug information is necessary.
- EO 4.6.7 (Valuing) Justify the need to document responses to drug information requests.
- EO 4.6.8 (Evaluating) Devise procedures for recording and retrieving various types of drug information responses that result in effective documentation of the pharmaceutical care provided.
- EO 4.6.9 (Applying) Document responses to drug information requests using a procedure that will record the provision of pharmaceutical care.



## Competency Statement 5

### **Manage a pharmacy or pharmacy service, including technology, personnel, reimbursement and outcomes in accordance with legal and ethical principles and regulatory requirements.**

- TO 5.1 (Applying) Use health care system information to project future economic and manpower needs for pharmacy practice.
- EO 5.1.1 (Understanding) Discuss the components of the U.S. health care system.
  - EO 5.1.2 (Understanding) Describe the role of pharmacy practice within the health care system.
  - EO 5.1.3 (Understanding) Discuss the components of the U.S. health care system that have direct impact on the practice of pharmacy.
  - EO 5.1.4 (Understanding) Describe the impact of specific components of the U.S. health care system on pharmacy practice.
  - EO 5.1.5 (Understanding) Describe the general operations of various pharmacy settings.
- TO 5.2 (Applying) Use a systematic problem-solving process to make decisions about managing human, economic, scientific, and technological resources that maximize the provision of pharmaceutical care.
- EO 5.2.1 (Remembering) For specific practice settings, identify factors to consider when determining manpower needs.
  - EO 5.2.2 (Understanding) Describe factors that influence the profits/losses of pharmacy operations.
  - EO 5.2.3 (Applying) Use financial measures to assess costs and profits/losses in a specific pharmacy practice setting.
  - EO 5.2.4 (Understanding) Discuss marketing principles for implementing pharmaceutical care services in a pharmacy setting.
  - EO 5.2.5 (Understanding) Identify evidence-based practical models used to evaluate, measure, and improve patient outcomes or to justify pharmacy services.
  - EO 5.2.6 (Analyzing) Evaluate technological strategies to assist in providing or improving pharmaceutical care.
    - EO 5.2.6.1 (Remembering) Identify scientific and technologic resources that may be used to assist in providing pharmaceutical care.
    - EO 5.2.6.2 Use computer resources (e.g., MTM 360<sup>o</sup>, Mirixa, IQWare) to accurately complete a medication therapy management consult.
  - EO 5.2.7 (Remembering) Identify resources that may be employed to maintain current knowledge of scientific and technological changes that impact the provision of pharmaceutical care.
  - EO 5.2.8 (Understanding) Describe the steps in a systematic approach to solving problems.
  - EO 5.2.9 (Organization) Adopt a systematic approach to solving problems.
- TO 5.3 (Applying) Use concepts of drug use evaluation to develop effective guidelines for a drug use evaluation program.

- EO 5.3.1 (Remembering) Describe the components of an effective drug use evaluation program.
- EO 5.3.2 (Understanding) Explain the process to develop approved medication use guidelines.
- EO 5.3.3 (Applying) Use methods to monitor adherence to medication use guidelines.
- EO 5.3.4 (Understanding) Explain procedures to develop a corrective action plan.
- EO 5.3.5 (Understanding) Explain procedures to measure the effectiveness of a corrective action plan.
- TO 5.4 (Analyzing) Outline procedures for effective management of a drug formulary.
  - EO 5.4.1 (Applying) Use a systematic approach to prepare drug monographs for formulary consideration.
  - EO 5.4.2 (Applying) Use a systematic approach to prepare monographs of drug classes for formulary review.
  - EO 5.4.3 (Understanding) Explain the pharmacist's role on a Pharmacy and Therapeutics committee.
- TO 5.5 (Applying) Use effective communication skills to work with ancillary personnel, other pharmacists, and managers.
  - EO 5.5.1 (Remembering) Describe oral and written communication processes that facilitate training situations.
  - EO 5.5.2 (Understanding) Discuss effective communication techniques a supervisor can use to describe expected work to other pharmacists and ancillary personnel.
  - EO 5.5.3 (Understanding) Discuss effective communication approaches a supervisor can use to present judgments of job performance.
  - EO 5.5.4 (Understanding) Discuss effective persuasive communication techniques and their application to practice management.
- TO 5.6 (Evaluating) Formulate a strategy to integrate new resources into the practice setting to achieve desired goals.
  - EO 5.6.1 (Understanding) Discuss human and financial factors to be considered when implementing the use of a new resource.
  - EO 5.6.2 (Understanding) Discuss factors to evaluate quality and value of care delivered.
- TO 5.7 (Evaluating) Develop strategies for detecting, preventing, and addressing medication errors.
  - EO 5.7.1 (Understanding) Discuss the guiding principles of promoting medication safety.
  - EO 5.7.2 (Understanding) Discuss approaches to prevent medication errors in various pharmacy settings.
  - EO 5.7.3 (Applying) Use the problem-solving process to compose a problem analysis of medication error management in a selected pharmacy environment.

- EO 5.7.4 (Applying) Apply decision criteria to generate alternative solutions to problems with medication safety in a pharmacy environment.
- EO 5.7.5 (Applying) Given a medication error problem, recommend strategies to promote the prevention of future errors.
- EO 5.7.6. (Understanding) Discuss steps to implement a medication safety program in an institutional and community practice setting.
- EO 5.7.6.1 (Understanding) Adhere to accepted medication safety practices (e.g., not using forbidden abbreviations or numeric notations).
- EO 5.7.6.2 (Understanding) Use recommended REMS and other accepted safety measures to promote safe use of medications.
- EO 5.7.6.3 (Understanding) Use accepted processes (e.g., MedWatch program) to report adverse medication events.
- TO 5.8 (Applying) Observe legal principles and regulatory requirements in the practice of pharmacy.
- EO 5.8.1 (Understanding) Distinguish between the concept of a law and the concept of a regulation.
- EO 5.8.2 (Understanding) Explain the process for establishing laws and regulations.
- EO 5.8.3 (Understanding) Explain federal and state of Georgia laws and regulations governing compounding, dispensing, and distribution of pharmaceuticals.
- EO 5.8.4 (Understanding) Explain federal, state of Georgia, and selected local Georgia business laws and regulations pertaining to the practice of pharmacy.
- EO 5.8.5 (Understanding) Explain federal and state of Georgia civil laws pertaining to pharmacy practice.
- EO 5.8.6 (Understanding) Discuss resources that provide explanations or interpretation of laws and regulations pertinent to the practice of pharmacy.
- EO 5.8.7 (Remembering) Identify resources that help maintain the pharmacist's current awareness of regulatory requirements affecting the practice of pharmacy.
- EO 5.8.8 (Organization) Develop a plan for keeping current with changes in laws and regulations pertaining to the practice of pharmacy.
- EO 5.8.9 (Understanding) Describe the prescribing rights of various health care providers in Georgia.
- TO 5.9 (Organization) Integrate ethical principles into one's professional conduct.
- EO 5.9.1 (Understanding) Discuss the ethical and professional principles that govern the practice of pharmacy.
- EO 5.9.2 (Analyzing) Identify situations in which legal requirements are either unclear or are in conflict with ethical pharmacy practice.
- EO 5.9.3 (Applying) Use a systematic decision making process to resolve ethical dilemmas in pharmacy practice.

EO 5.9.4 (Applying) Develop an acceptable procedure to document ethical decisions that may conflict with legal requirements.

## Competency Statement 6

**Recognize potential risks and consequences of substance abuse by pharmacists; provide professional guidance and scientific information to the public and health providers regarding substance abuse, chemical dependency, and management of toxic substances.**

- TO 6.1 (Organization) Adhere to professional practices that minimize the risk of substance abuse or chemical dependency by oneself.
- EO 6.1.1 (Understanding) Discuss potential risks and consequences of substance abuse by pharmacists.
  - EO 6.1.2 (Understanding) Explain potential risks and consequences of chemical dependency by pharmacists.
  - EO 6.1.3 (Understanding) Discuss steps pharmacists should take if they abuse a substance or become chemically dependent.
- TO 6.2 (Analyzing) Identify individuals who are potentially abusing medications.
- EO 6.2.1 (Remembering) Identify sources of information about an approved or unapproved drug's potential for abuse and signs and symptoms of abuse.
  - EO 6.2.2 (Understanding) Explain the use of medication profiles to detect drug abuse.
  - EO 6.2.3 (Understanding) Discuss behavioral and neurological signs that may signal drug abuse.
  - EO 6.2.4 (Understanding) Discuss action pharmacists should take when they suspect drug abuse.
- TO 6.3 (Applying) When chemical dependency is known, recommend appropriate medications to prescribers or patients.
- EO 6.3.1 (Remembering) Identify sources of drug information that describe the manifestations of dependency on a specific drug.
  - EO 6.3.2 (Understanding) Discuss the physiological differences between substance abuse and chemical dependency.
  - EO 6.3.3 (Remembering) Describe the signs and symptoms of chemical dependency.
  - EO 6.3.4 (Remembering) Describe the signs and symptoms of drug withdrawal in a chemically dependent individual.
  - EO 6.3.5 (Understanding) Discuss the pharmacist's legal and ethical obligations to a patient or colleague who is chemically dependent.
  - EO 6.3.6 (Understanding) Discuss action pharmacists should take when chemical dependency is known.
  - EO 6.3.7 (Understanding) For common drugs upon which individuals are chemically dependent, discuss prescription and nonprescription drugs which should not be recommended.
  - EO 6.3.8 (Applying) Prepare a treatment regimen for a patient chemically dependent upon a specific common drug.
- TO 6.4 (Applying) Provide educational materials or activities for health care providers and consumers on the

prevention of substance abuse and chemical dependency.

EO 6.4.1 (Remembering) Describe information sources for substance abuse and chemical dependency prevention, detection, and management.

TO 6.5 (Evaluating) Design a patient care plan to manage poisonings or drug overdoses commonly seen in the practice environment.

EO 6.5.1 (Creating) Assess the urgency of an occurrence of poisoning or drug overdose.

EO 6.5.2 (Analyzing) Identify the appropriate information resources for the management of a case of poisoning or drug overdose.

EO 6.5.3 (Applying) Use an efficient method for retrieving poison control or drug overdose information.

EO 6.5.4 (Analyzing) Identify therapeutic alternatives for management of a case of poisoning or drug overdose.

EO 6.5.5 (Understanding) Distinguish between poisoning or drug overdose situations that can be managed by the pharmacist and those that must be referred to a physician.

EO 6.5.6 (Applying) Recommend a step-wise care plan for a case of poisoning or drug overdose.

EO 6.5.7 (Creating) Assess the patient's outcome in a case of poisoning or drug overdose.

TO 6.6 (Applying) Provide educational materials or activities for health care providers and consumers on poison prevention.

EO 6.6.1 (Remembering) Describe information sources for poison prevention.

## Competency Statement 7

### **Identify and pursue appropriate means for continuous personal and professional development; develop and maintain professional behaviors and values; and pursue opportunities for professional leadership.**

- TO 7.1 (Understanding) Discuss the components of and resources for meeting the goals of professional development.
- EO 7.1.1 (Understanding) Discuss legal, practice specific, and professional factors to consider when setting professional development goals.
  - EO 7.1.2 (Remembering) Identify resources for obtaining information on a state's legal requirements for continuing pharmacy education.
  - EO 7.1.3 (Remembering) Identify various pathways of continuing pharmacy education.
  - EO 7.1.4 (Understanding) Predict the most effective pathway to maintain professional development goals (professional growth, practice specialization, and professional networking).
  - EO 7.1.5 (Understanding) Compare and contrast the strengths of various professional associations for meeting specific continuous professional development goals.
  - EO 7.1.6 (Remembering) Identify primary, secondary, tertiary literature and on-line sources of information for meeting continuing education requirements.
  - EO 7.1.7 (Remembering) State available career opportunities and options for postgraduate education.
- TO 7.2 (Understanding) Discuss the components of and resources for meeting the goals of personal development.
- EO 7.2.1 (Understanding) Discuss factors to consider when setting personal and professional development goals.
  - EO 7.2.2 (Understanding) Explain the types of personal development goals needed to balance one's personal and professional life.
  - EO 7.2.3 (Understanding) Discuss opportunities for mentoring others.
  - EO 7.2.4 (Understanding) Discuss opportunities for leadership in the community.
- TO 7.3 (Organization) Accept responsibility for personal and professional development.
- EO 7.3.1 (Valuing) Demonstrate leadership skills in the profession.
    - EO 7.3.1.1 (Understanding) Discuss the responsibility of the pharmacist to participate in professional associations.
  - EO 7.3.2 (Valuing) Demonstrate commitment to lifelong learning.
    - EO 7.3.2.1 (Understanding) Discuss the importance of commitment to life-long learning for the pharmacist.

- TO 7.4 (Characterization) Display professional behavior toward faculty, staff, peers, patients, and other health providers in the classroom laboratory, and clinical settings.
- EO 7.4.1 (Organization) Modify behavior to engage appropriately in classroom, laboratory, and clinical settings.
- EO 7.4.2 (Organization) Modify behavior to communicate effectively with faculty, staff, peers, patients, and other health providers.
- EO 7.4.2.1 (Organization) Demonstrate skills of conflict resolution.
- EO 7.4.2.2 (Evaluating) Formulate a constructive evaluation of others' performance.
- EO 7.4.2.3 (Organization) Display a positive attitude when receiving constructive criticism from faculty or peers.
- EO 7.4.2.4 (Valuing) Formulate written communications with professional content and tone.
- EO 7.4.2.5 (Organization) Demonstrate confidence in actions and communications.
- EO 7.4.2.6 (Organization) Demonstrate skills of reasoning and judgment when communicating with peers, faculty, other health providers, and patients.
- EO 7.4.3 (Organization) Show regard for persons in authority in classroom, laboratory, and clinical settings.
- EO 7.4.4 (Organization) Demonstrate dependability to carry out assignments.
- EO 7.4.5 (Valuing) Differentiate appropriate interpersonal interactions to value age, culture, religion, ethnic origin, and gender.
- EO 7.4.6 (Organization) Demonstrate regard for differing values and abilities among peers, other health care providers, and patients.
- EO 7.4.7 (Characterization) Act with honesty and integrity in academic matters and professional relationships.
- EO 7.4.7.1 (Characterization) Demonstrate an attitude of service by putting others' needs above one's own.
- EO 7.4.7.2 (Characterization) Demonstrate a desire to exceed expectations.
- EO 7.4.8 (Characterization) Demonstrate appropriate judgment with regard to self-medication or promoting self-medication to others.
- EO 7.4.9 (Characterization) Demonstrate professional interactions with patients.
- EO 7.4.9.1 (Valuing) Describe the covenantal relationship between a pharmacist and patient.
- EO 7.4.9.2 (Analyzing) Identify instances when one's values and motivation are in conflict with those of the patient, patient's family, or health care organization.
- EO 7.4.9.3 (Organization) Relate to patients in a caring and compassionate



manner.

EO 7.4.9.4 (Organization) Demonstrate ethical standards related to pharmacy practice.

EO 7.4.10 (Characterization) Exhibit fitting behavior when representing the University of Georgia College of Pharmacy in extracurricular activities and professional meetings outside the College of Pharmacy.

TO 7.5 (Characterization) Demonstrate punctuality in academic and professional environments.

EO 7.5.1 (Responding) Adhere to established times for classes, laboratories, clerkships, and meetings.

EO 7.5.2 (Responding) Comply with established verbal and written deadlines.

EO 7.5.3 (Responding) Respond to requests (written requests, verbal questions, e-mails, telephone calls) in a timely fashion.

EO 7.5.4 (Responding) Perform pharmaceutical care responsibilities in a timely manner.

TO 7.6 (Characterization) Maintain a professional appearance when representing the College of Pharmacy.

EO 7.6.1 (Valuing) Modify dress appropriate to classroom, laboratory, clinical, and professional settings.

EO 7.6.2 (Valuing) Maintain personal hygiene and grooming appropriate to the academic or professional environment.

TO 7.7 (Responding) Comply with student health requirements for working with patients in various health care environments.

TO 7.8 (Organization) Maintain appropriate records (e.g., intern license, CPR certification, immunizations, insurance skills) to demonstrate professional competence.

TO 7.9 (Responding) Comply with federal, state, University, College of Pharmacy, and institutional requirements regarding confidentiality of information.

TO 7.10 (Characterization) Produce quality work in academic and professional settings.

EO 7.10.1 (Organization) Utilize time efficiently.

EO 7.10.2 (Organizations) Demonstrate the ability to prioritize activities effectively in classroom, laboratory, and clinical settings.

EO 7.10.3 (Organization) Demonstrate self-direction in completing assignments.

EO 7.10.4 (Characterization) Demonstrate accountability for decisions.

EO 7.10.5 (Characterization) Demonstrate characteristics of lifelong learning.

## Bloom's Taxonomy – COGNITIVE Domain

<i>Descriptions of the Major Categories in the Cognitive Domain</i>	<i>Illustrative Verbs for Stating Specific Learning Objectives</i>
<p><b>Remembering.</b> Remembering is defined as the recalling of previously learned material. This may involve the recall of wide range of material, from specific facts to complete theories, but all that is required is the bringing to mind of the appropriate information. Remembering represents the lowest level of learning outcomes in the cognitive domain.</p>	<p>Defines, describes, identifies, labels, lists, matches, names, outlines, reproduces, selects, states</p>
<p><b>Understanding.</b> Understanding is defined as the ability to grasp the meaning of material. This maybe shown by translating material for one form to another (words to numbers), by interpreting material (explaining or summarizing), and by estimating future trends (predicting consequences or effects). These learning outcomes go one step beyond the simple remembering of material, and represent the lowest level of understanding.</p>	<p>Converts, defends, distinguishes, estimates, explains, extends, generalizes, gives examples, infers, paraphrases, predicts, rewrites, summarizes</p>
<p><b>Applying.</b> Applying refers to the ability to use learned material in new and concrete situations. This may include the application of such things as rules, methods, concepts, principles, laws, and theories. Learning outcomes in this area require a higher level of understanding than those under understanding.</p>	<p>Changes, computes, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses</p>
<p><b>Analysing.</b> Analysing refers to the ability to break down material into its component parts so that its organizational structure may be understood. This may include the identification of the parts, analysis of the relationships between parts, and recognition of the organizational principles involved. Learning outcomes here represent a higher intellectual level than understanding and applying because they require an understanding of both the content and the structural form of the material.</p>	<p>Breaks down, diagrams, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, points out, relates, selects, separates, subdivides</p>
<p><b>Evaluating.</b> Evaluating refers to the ability to put parts together to form a new whole. This may involve the production of a unique communication (theme or speech), a plan of operation (research proposal), or a set of abstract relations (scheme for classifying information). Learning outcomes in this area stress creative behaviors, with major emphasis on the formulation of new patterns of structures.</p>	<p>Categories, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes</p>
<p><b>Creating.</b> Creating is concerned with the ability to judge the value of material (statement, novel, poem, research report) for a given purpose. The judgments are to be based on definite criteria. These may be internal criteria (organization) or external criteria (relevance to the purpose) and the student may determine the criteria or be given them. Learning outcomes in this area are highest in the cognitive hierarchy because they contain elements of all of the other categories, plus conscious value judgments based on clearly defined criteria.</p>	<p>Appraises, compares, concludes, contrasts, criticizes, describes, discriminates, explains, justifies, interprets, relates, summarizes, supports</p>

*Anderson LW, Krathwohl DR. A Taxonomy for Learning, Teaching and Assessment: A Revision of Bloom's Taxonomy of Educational Objectives. New York, NY:*

*Longman; 2001.*

## Krathwohl's Taxonomy – AFFECTIVE Domain

<i>Descriptions of the Major Categories in the Affective Domain</i>	<i>Illustrative Verbs for Stating Specific Learning Objectives</i>
<p><b>Receiving.</b> Receiving refers to the student's willingness to attend to particular phenomena or stimuli (Classroom activities, textbook, music, etc.). From a teaching standpoint, it is concerned with getting, holding, and directing the student's attention. Learning outcomes in this area range from the simple awareness that a thing exists to selective attention on the part of the learner. Receiving represents the lowest level of learning outcomes in the affective domain.</p>	<p>Asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits erect, replies, uses</p>
<p><b>Responding.</b> Responding refers to active participation on the part of the student. At this level he or she not only attends to a particular phenomenon but also reacts to it in some way. Learning outcomes in this area may emphasize acquiescence in responding (reads assigned material), willingness to respond (voluntarily reads beyond assignment), or satisfaction in responding (reads for pleasure or enjoyment). The higher levels of this category include those instructional objectives that are commonly classified under "interests"; that is, those that stress the seeking out and enjoyment of particular activities.</p>	<p>Answers, assists, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes</p>
<p><b>Valuing.</b> Valuing is concerned with the worth or value a student attaches to a particular object, phenomenon, or behavior. This ranges in degree from the more simple acceptance of a value (desires to improve group skills) to the more complex level of commitment (assumes responsibility for the effective functioning of the group). Valuing is based on the internalization of a set of specified values, but clues to these values are expressed in the student's overt behavior. Learning outcomes in this area are concerned with behavior that is consistent and stable enough to make the value clearly identifiable. Instructional objects that are commonly classified under "attitudes" and "appreciation" would fall into this category.</p>	<p>Completes, describes, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works</p>
<p><b>Organization.</b> Organization is concerned with bringing together different values, resolving conflicts between them, and beginning the building of an internally consistent value system. Thus the emphasis is on comparing, relating, and synthesizing values. Learning outcomes may be concerned with the conceptualization of a value (recognizes the responsibility of each individual for improving human relations) or with the organization of a value system (develops a vocational plan that satisfies his or her need for both economic security and social service). Instructional objectives relating to the development of a philosophy of life would fall into this category.</p>	<p>Adheres, alters, arranges, combines, compares, completes, defends, explains, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes</p>
<p><b>Characterization by a Value or Value Complex.</b> At this level of the affective domain the individual has a value system that has controlled his or her behavior for a sufficiently long time for him or her to have developed a characteristic "lifestyle." Thus the behavior is pervasive, consistent, and predictable. Learning outcomes at this level cover a broad range of activities, but the major emphasis is on the fact that the behavior is typical or characteristic of the student. Instructional objectives that are concerned with the student's general patterns of adjustment (personal, social, emotional) would be appropriate here.</p>	<p>Acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, uses, verifies.</p>

*Adapted from Gronlund, NE. Stating objectives for classroom instruction (3<sup>rd</sup> ed.), New York: Macmillan Publishing Co., 1985, pp. 36-41.*

## Dave's Taxonomy – PSYCHOMOTOR Domain

<i>Descriptions of the Major Categories in the Psychomotor Domain</i>	<i>Illustrative Verbs for Stating Specific Learning Objectives</i>
<b>Imitation.</b> In this category, the learner observes and imitates. The action may be crude and/or imperfect, but the expectation is for the learner to watch and repeat.	Align, assemble, balance, follow, attempt, carry out, copy, construct, duplicate, mimic, practice, reproduce, organize, try
<b>Manipulation.</b> This level refers to continuing practice of a skill or sequence until it becomes habitual and performed with some confidence and proficiency.	Complete, conduct, do execute, improve, maintain, make, manipulate, operate, perform, produce
<b>Precision.</b> In this level, the skill has been attained and is indicated by a quick, smooth, accurate performance. The learner can perform this skill accurately, independently, and proficiently.	Achieve, accomplish, advance, automate, exceed, excel, master, reach, succeed, surpass.
<b>Articulation.</b> At this level the skill is so well developed that the individual can modify patterns with special requirements and meet the demands of problematic situations.	Adapt, alter, change, rearrange, reorganize, revise, surpass, transcend.
<b>Naturalization.</b> At this level the individual begins to experiment, creating new acts or ways of manipulating materials.	Arrange, combine, compose, construct, develop, create, design, refine, originate, transcend.

*Adapted from Armstrong, R.J. The development and evaluation of behavioral objectives. Worthington, Ohio: CA Jones Publishing Company, 1970.*