1. GENERAL PRINCIPLES OF AGING (20%)

A. Apply the knowledge of physiologic changes associated with aging to the clinical use of medications (e.g., pharmacokinetics, pharmacodynamics)
B. Evaluate the interrelationship between social issues and aging on health care decisions
C. Assess financial/reimbursement issues when making therapeutic recommendations
D. Discuss the philosophy and practice of hospice and palliative care
E. Integrate ethnic, racial, and cultural factors into health care decisions
F. Identify the impact of culture on care decisions and quality of life
G. Identify the impact of ageism on care decisions and quality of life
H. Describe the interrelationship between an older adult and their formal and informal caregivers
I. Communicate medication information to older patients, their caregivers, and the interprofessional team
J. Educate older adults and caregivers according to their communication barriers

Knowledge of:

A. The spectrum of aging from healthy aging to frailty
B. The physiological heterogeneity of older adults
C. Social issues (e.g., family, cultural, community, housing, access to care, policy issues, medication use)
D. Financial issues (e.g., formularies, insurance coverage)
E. Principles of ethics (e.g., self-determination, autonomy, justice in the distribution of resources)
F. Elder abuse/neglect
G. Ageism and therapeutic nihilism (i.e., skepticism regarding value of treatment)
H. Communication barriers (e.g., cognitive, sensory, cultural, language, health literacy)
I. Functional barriers to activities of daily living and instrumental activities of daily living

2. PERSON-CENTERED CARE (60%)

A. Interpret basic cognitive, mental, functional, physical, and safety assessments for common diseases and conditions
B. Assess a medication regimen and medical history for medication-related problems (e.g., potentially inappropriate medication, underuse, duplication, affordability)
C. Interpret clinical findings (e.g., physical assessment, review of systems, labs, imaging)
D. Incorporate functional status into therapeutic decision-making  
E. Prioritize care based upon severity of illness, patient preference, quality of life, and time to benefit  
F. Identify patients who need referrals to other health and non-health professionals  
G. Assess the older adult for iatrogenic conditions (e.g., immobility, delirium, medication side effects, malnutrition, pressure injuries, procedures, hospital-acquired infections)  
H. Evaluate self-care capacity (e.g., medication self-administration, drug delivery devices, adherence aids)  
I. Identify individuals who display signs or symptoms of common diseases and conditions in older adults  
J. Define therapeutic goals incorporating person-specific principles (e.g., age, functionality, patient preference, culture)  
K. Determine therapeutic options and the risk/benefit to the patient (e.g., no treatment, non-pharmacologic interventions, pharmacologic interventions)  
L. Recommend a person-specific treatment plan (e.g., medication therapy management)  
M. Resolve and/or prevent medication-related problems in the older adult  
N. Incorporate life expectancy and end-of-life issues in the decision-making of appropriate use of medications  
O. Develop a person-specific plan for monitoring safety, effectiveness, and quality of life  
P. Implement a person-specific monitoring plan  
Q. Revise therapeutic plans based upon changes in patient status  
R. Explain appropriate use of self-monitoring devices  
S. Identify educational needs specific to the patient/caregiver  
T. Recommend educational materials appropriate to the specific patient/caregiver needs  
U. Educate patient/caregiver regarding potential risk/benefit related to the medication regimen  
V. Educate the patient/caregiver on the importance of medication adherence  
W. Explain appropriate use of drug delivery systems/devices  
X. Document care plan recommendations using standard techniques and formats (e.g., SOAP notes)  
Y. Document rationale, interventions, and outcomes from medication therapies

**Knowledge of:**

<table>
<thead>
<tr>
<th>A.</th>
<th>Diagnostic criteria</th>
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<tbody>
<tr>
<td>B.</td>
<td>Signs and symptoms</td>
</tr>
<tr>
<td>C.</td>
<td>Pathophysiology</td>
</tr>
<tr>
<td>D.</td>
<td>Etiology (e.g., drug-induced, disease-induced)</td>
</tr>
<tr>
<td>E.</td>
<td>Risk factors</td>
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<tr>
<td>F.</td>
<td>Onset, course, and prognosis</td>
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<tr>
<td>G.</td>
<td>Common medical comorbidities</td>
</tr>
<tr>
<td>H.</td>
<td>Relative role of treatment options (pharmacologic and non-pharmacologic)</td>
</tr>
<tr>
<td>I.</td>
<td>Pharmacokinetics, pharmacogenomics, and pharmacodynamics</td>
</tr>
<tr>
<td>J.</td>
<td>Relative potency, dosage, schedule, route of administration, and delivery technology</td>
</tr>
<tr>
<td>K.</td>
<td>Relative effectiveness of treatment options, including complementary and alternative therapy</td>
</tr>
</tbody>
</table>
### 3. POPULATION AND PUBLIC HEALTH (20%)

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>A.</td>
<td>Participate in interprofessional decision making regarding levels of care for individual patients</td>
</tr>
<tr>
<td>B.</td>
<td>Maintain the continuity of treatment and communication across the spectrum of services and during transitions between care settings</td>
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<tr>
<td>C.</td>
<td>Facilitate medication reconciliation to improve transitions across the continuum of care and reduce readmissions</td>
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<tr>
<td>D.</td>
<td>Recommend resources to support older adults and caregivers</td>
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<tr>
<td>E.</td>
<td>Recommend evidence-based approaches for screening, immunizations, health promotion, and disease prevention for older adults</td>
</tr>
<tr>
<td>F.</td>
<td>Recommend interventions and behaviors that promote overall well-being of the person and caregiver (e.g., physical and mental health, nutrition, function, safety, social interactions, independence, quality of life)</td>
</tr>
<tr>
<td>G.</td>
<td>Assess specific risks to older adult safety</td>
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<tr>
<td>H.</td>
<td>Evaluate primary literature</td>
</tr>
<tr>
<td>I.</td>
<td>Evaluate the relevance of clinical practice guidelines, standards of care, and quality measures to geriatric care</td>
</tr>
<tr>
<td>J.</td>
<td>Apply the findings of research to the care of older adults</td>
</tr>
<tr>
<td>K.</td>
<td>Evaluate medication utilization at the system level to ensure safe, effective, and affordable drug therapy</td>
</tr>
<tr>
<td>L.</td>
<td>Disseminate results of research to target audience</td>
</tr>
<tr>
<td>M.</td>
<td>Assess the level of an individual's health literacy</td>
</tr>
<tr>
<td>N.</td>
<td>Identify educational needs for target audiences</td>
</tr>
<tr>
<td>O.</td>
<td>Develop educational programs/materials for target audiences</td>
</tr>
<tr>
<td>P.</td>
<td>Implement educational programs for target audiences</td>
</tr>
<tr>
<td>Q.</td>
<td>Evaluate the outcomes of an educational intervention</td>
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<tr>
<td>R.</td>
<td>Identify reputable sources of information for the care of older adults</td>
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<tr>
<td>S.</td>
<td>Assess formulary management protocols</td>
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<tr>
<td>T.</td>
<td>Conduct a cost-benefit analysis of medication therapy</td>
</tr>
<tr>
<td>U.</td>
<td>Develop systems to identify risk factors and prevention for adverse drug event or medication incidents/errors</td>
</tr>
</tbody>
</table>
V. Apply systems to identify risk factors and prevention for adverse drug event or medication incidents/errors

W. Develop protocols for managing high-risk medications

X. Apply protocols for managing high-risk medications

Y. Develop strategies to prevent or resolve iatrogenic conditions

Knowledge of:

A. Continuum of care (e.g., home care, assisted living communities, nursing facilities, sub-acute care facilities, hospice care, hospitals)

B. Preventative care

C. Safety risks (e.g., falls, abuse, physical/chemical restraints, environmental hazards)

D. Medical literature and clinical practice guidelines related to common disorders found in older adults

E. Information resources and technologies

F. Study design and methodology (e.g., strengths and limitations of various designs, statistical methods)

G. Applicability and generalizability of research findings

H. Clinical versus statistical significance

I. System level medication use (e.g., medication utilization evaluation, antimicrobial stewardship)

J. Education methods and principles for target audience (e.g., patients, caregivers, health care professionals, public)

K. Medication appropriateness assessment (e.g., Beers criteria, START/STOPP, anticholinergic burden)
The following disease states targets are to be used across the entire outline:

"**High**" will account for 60% of Section II.
"**Medium**" will account for 35% of Section II.
"**Low**" will account for 5% of Section II.

### Knowledge 1: Cardiovascular Disorders (**High**)
- a. Acute Coronary Syndromes
- b. Cardiac Arrhythmias
- c. Coronary Artery Disease
- d. Heart Failure
- e. Hyperlipidemia
- f. Hypertension/ Hypotension
- g. Peripheral Vascular Disease
- h. Other

### Knowledge 2: Dermatologic Disorders (**Low**)
- a. Dermatitis and Pruritus
- b. Drug Induced Skin Disorders
- c. Fungal Infections
- d. Pressure Ulcers
- e. Other

### Knowledge 3: Endocrine and Exocrine Disorders (**High**)
- a. Diabetes Mellitus
- b. Disorders of the Adrenal Gland
- c. Hormone Replacement Therapy
- d. SIADH
- e. Thyroid Disorders
- f. Other

### Knowledge 4: Gastrointestinal Disorders (**Medium**)
- a. Diarrhea and Constipation
- b. Gastroesophageal Reflux Disease
- c. Hepatitis, Cirrhosis
- d. Inflammatory Bowel Disease
- e. Irritable Bowel Syndrome
- f. Nausea and Vomiting
- g. Pancreatic Conditions (e.g., Pancreatitis, Exocrine Pancreatic Insufficiency)
- h. Peptic Ulcer Disease
- i. Other

### Knowledge 5: Genitourinary and Renal Disorders (**Medium**)
- a. Acute Kidney Injury
- b. Benign Prostatic Hyperplasia/LUTS
- c. Chronic Kidney Disease
- d. Sexual Dysfunction
- e. Urinary Incontinence/Retention
- f. Other
### Knowledge 6: Geriatric Syndromes (Medium)
- a. Dizziness
- b. Dysphagia
- c. Failure to Thrive
- d. Falls
- e. Frailty
- f. Syncope
- g. Vision and Hearing Impairment
- h. Other

### Knowledge 7: Hematologic Disorders (Medium)
- a. Anemias
- b. Disorders of Hemostasis
- c. Thrombocytopenia
- d. Thromboembolic Disorders
- e. Other

### Knowledge 8: Infectious Diseases (High)
- a. Bone and Joint Infections
- b. Drug Resistance
- c. Gastrointestinal Infections
- d. Genitourinary Tract Infections
- e. Herpes Zoster
- f. HIV/AIDS
- g. Immunizations
- h. Influenza
- i. Nosocomial Infections
- j. Ophthalmic Infections
- k. Pneumonia
- l. Skin and Soft Tissue Infections
- m. Tuberculosis
- n. Other

### Knowledge 9: Musculoskeletal Disorders (Medium)
- a. Gout
- b. Osteoarthritis
- c. Osteoporosis
- d. Rheumatological Diseases
- e. Other

### Knowledge 10: Neurological Disorders (High)
- a. Acute and Chronic Pain Syndromes
- b. Cerebrovascular Disease (e.g. Stroke, Transient Ischemic Attacks)
- c. Delirium
- d. Dementias (e.g., Alzheimer’s, Vascular, Lewy Body)
- e. Fibromyalgia
- f. Headache Disorders
- g. Movement Disorders (e.g. Parkinson’s Disease, Essential Tremor, EPS)
- h. Multiple Sclerosis
- i. Neuropathies
- j. Seizure Disorders
- k. Other
### Knowledge 11: Nutrition and Hydration Disorders (Medium)
- a. Dehydration
- b. Fluid and Electrolyte Disorders
- c. Malabsorption
- d. Malnutrition
- e. Weight Loss
- f. Other

### Knowledge 12: Oncology (Low)
- a. Breast Cancer
- b. Colorectal Cancer
- c. Lung Cancer
- d. Prostate Cancer
- e. Other

### Knowledge 13: Ophthalmology (Low)
- a. Cataracts
- b. Dry Eyes
- c. Glaucoma
- d. Macular Degeneration
- e. Other

### Knowledge 14: Psychiatric Disorders (High)
- a. Anxiety Disorders
- b. Bipolar Disorder
- c. Depression
- d. Pseudobulbar Affect
- e. PTSD
- f. Schizophrenia
- g. Sleep Disturbances (e.g., Insomnia, RLS)
- h. Substance Use Disorders
- i. Other

### Knowledge 15: Respiratory Disorders (High)
- a. Allergic Rhinitis
- b. Asthma
- c. Chronic Obstructive Pulmonary Disease
- d. Sleep Apnea
- e. Other