Structured, professional, complete USMLE Step 1 syllabus, tailored for **medical students and doctors in Syria**.

Designed as a **10- to 12-week intensive program** but can be expanded or compressed depending on your instructional schedule.

USMLE STEP 1 – COMPLETE COURSE SYLLABUS

Comprehensive Teaching Program for Medical Students & Doctors – Syria

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I. Course Description

This course provides a complete, structured, high-yield preparation for the USMLE Step 1 examination.

It integrates foundational medical sciences with clinical correlations, problem-solving, and exam-oriented reasoning.

The program includes live lectures, case discussions, weekly assessments, simulation exams, and strategic test-taking preparation.

II. Course Objectives

By the end of the course, students will be able to:

1. Demonstrate mastery of fundamental biomedical sciences.
2. Apply integrated knowledge to solve complex clinical vignettes.
3. Use critical thinking and mechanism-based reasoning.
4. Perform under exam conditions with effective time management.
5. Pass the USMLE Step 1 confidently on the first attempt.

III. Course Structure

- Duration: **10–12 weeks** (modifiable)
- Format:
  - Live lectures
  - Recorded sessions
  - Weekly quizzes
  - NBME-style practice blocks
  - Final full-length mock exam
- Required resources:
  - UWorld QBank
  - NBME practice forms
  - High-yield course handouts
  - Assigned reading lists

IV. Weekly Syllabus Breakdown

WEEK 1 — Foundations of Step 1

A. Course Orientation & Strategy

- Purpose of Step 1
- Exam structure & timing
- Pass/Fail system
- How Step 1 impacts Step 2 CK and residency
- Principles of active learning

B. Basic Principles Review

- Cell biology
- Cellular injury
- Inflammation
- Neoplasia
- DNA/RNA structure

Assessment: 40-question diagnostic exam

WEEK 2 — Anatomy & Embryology

Regions Covered:

- Upper limb, lower limb, neurovascular pathways
- Thorax: cardiac anatomy, lung anatomy
- Abdomen & pelvis
- Neuroanatomy (high yield focus)
- Cranial nerves
- Spinal tracts
- Embryology of heart, CNS, GI, GU

Clinical Workshops:

- Stroke localization
- Spinal cord lesions
- Brachial plexus injuries

Assessment: 50-question anatomy/embryology quiz

WEEK 3 — Physiology

Core Physiology Systems:

- Cardiovascular physiology
- Hemodynamics
- Respiratory mechanics
- Gas exchange
- Renal physiology
- Acid-base regulation
- GI physiology
- Reproductive physiology
- Endocrine pathways

Problem-Solving Workshops:

- Shock
- Electrolyte disturbances

Assessment: 50-question physiology block

WEEK 4 — Biochemistry & Molecular Biology

Biochemistry Focus:

- Metabolic pathways
- Carbohydrate, lipid, and protein metabolism
- Enzyme kinetics
- Vitamins & cofactors
- Inborn errors of metabolism

Genetics & Molecular Biology:

- DNA repair
- Transcription/translation
- Gene regulation
- Genetic inheritance patterns
- Pharmacogenomics

Assessment: 50-question biochem/genetics quiz

WEEK 5 — Microbiology

Bacteriology

- Gram-positive

- Gram-negative
- Anaerobes
- Antimicrobial mechanisms

Virology

- DNA vs RNA viruses
- Hepatitis viruses
- HIV

Mycology & Parasitology

- Candida, Aspergillus
- Protozoa: malaria, giardia, toxoplasma

Immunology Integration

- Innate immunity
- Adaptive immunity
- Hypersensitivity types I–IV
- Autoimmunity

Assessment: 50-question microbiology quiz

WEEK 6 — Systemic Pathology I (Organ-Based)

Cardiovascular pathology

Respiratory pathology

Renal pathology

Endocrine pathology

Clinical Labs:

- EKG fundamentals
- Chest X-ray basics
- Renal disease lab interpretation

Assessment: 50-question organ pathology block

WEEK 7 — Systemic Pathology II

GI pathology

Hematology/Oncology

Neuropathology

Reproductive pathology

Musculoskeletal pathology

Clinical Application:

- Anemia cases
- Neurodegenerative diseases
- GI bleeding algorithms

Assessment: 50-question pathology block

WEEK 8 — Pharmacology

General Principles:

- PK/PD
- Drug metabolism
- Dose-response curves
- Drug interactions

System-Based Pharmacology:

- Cardiac drugs
- Respiratory drugs
- CNS drugs
- Antibiotics
- Endocrine drugs
- Chemotherapy

High-Yield Tables:

- Side effects
- Black-box warnings
- Antidotes

Assessment: 50-question pharm block

WEEK 9 — Systems Integration

Integrated Review:

- CVS + Resp + Renal
- GI + Endocrine
- Neuro + Psych
- MSK + Reproductive + Dermatology

Case-Based Learning:

- Full-length clinical vignettes
- Multi-step reasoning
- Diagnostic approach strategies

Assessment: Block of 40 NBME-style integrated questions

WEEK 10 — Behavioral Science & Biostatistics

Behavioral Sciences:

- Developmental milestones
- Psychiatric disorders
- Doctor–patient relationship
- Ethics

Biostatistics:

- Sensitivity, specificity
- PPV, NPV
- Odds ratio, relative risk
- Bias & confounding

Assessment: 30-question psycho-social block

WEEK 11 — Comprehensive Review

Rapid High-Yield Review Sessions:

- Pathology marathon
- Pharmacology rapid recall
- Micro milestones
- First Aid-style review

Strategy Workshops:

- Time management
- How to dissect long question stems
- Common traps and logical fallacies

Assessment: NBME assessment exam

WEEK 12 — Final Examination & Exam-Day Preparation

Full-Length Mock Exam:

- 7 blocks
- 40 questions each

Performance Analysis:

- Strengths
- Weaknesses
- Personalized study plan

Test-Day Protocol:

- Sleep
- Timing
- Break scheduling
- Mindset and stress control

V. Course Materials Provided

- Full lecture slides
- High-yield summary booklets

- Condensed Step 1 notes
- UWorld strategy guide
- Daily & weekly study schedules
- Flashcards
- Case review book

VI. Assessments

- Weekly quizzes
- Mid-course diagnostic
- Final NBME simulation
- Personalized feedback sessions

VII. Completion Requirements

- 80% attendance
- Completion of all quizzes
- Completion of the final mock exam

Graduates receive:

- Certificate of Completion
- Individualized USMLE study plan
- Residency advising (optional)
