

**One Year Post Graduate Diploma In Medical
Diagnostic Ultrasound
(General Track)
Semester 2
Weekly Planner**



Semester 2

Course Name: Vascular Ultrasound

Course Director: Prof. Dr. Syed Amir Gilani (PhD)

Course Code: PGDG-7106

Teaching Faculty

1-Prof. Dr. Syed Amir Gilani (PhD)

2-Associate Prof. Dr. Raham Bacha (PhD)

Weeks	Course Content
Week 1	Hemodynamics-(1)
Week 2	Color Doppler of neck vessels-(1)
Week 3	Color Doppler of abdominal vessels-(1)
Week 4	Quiz & Assignment
Week 5	Color Doppler in abdominal visceral vessels
Week 6	Renal artery Doppler-(1)
Week 7	Upper limb Arterial Doppler-(1)
Week 8	Quiz & Assignment
Week 9	Lower limb Arterial Doppler-(1)
Week 10	Small parts Doppler-(1)
Week 11	Color Doppler in Gynaecology-(1)
Week 12	Color Doppler in obstetrics-(1)
Week 13	Quiz & Assignment
Week 14	Lower Limb Venous Doppler-(1)
Week 15	Upper Limb Venous Doppler-(1)
Week 16	Final Exam

Semester 2

Course Name: Medical Ethics

Course Director: Prof. Dr. Syed Amir Gilani

Course Code: PGDG-7107

Teaching Faculty

1: Prof. Dr. Syed Amir Gilani (PhD)

Weeks	Course Content
Week 1	Introduction to Medical Ethics-(1)
Week 2	Informed Consent-(1)
Week 3	Confidentiality and Privacy-(1)
Week 4	Quiz & Assignment
Week 5	Allocation of scarce resources-(1)
Week 6	Human subjects and research ethics-(1)
Week 7	Contemporary Ethical Challenges-(1)
Week 8	Quiz & Assignment
Week 9	Definition and importance of patient safety-(1)
Week 10	Role of organizational culture in patient safety-(1)
Week 11	Patient Safety Reporting and Analysis-(1)
Week 12	Medication Safety-(1)
Week 13	Quiz & Assignment
Week 14	Quality Improvement in Healthcare-(1)
Week 15	Simulation and Team Training-(1)
Week 16	Final Exam

Semester 2

Course Name: Musculoskeletal Ultrasound

Course Director: Prof. Dr. Syed Amir Gilani

Course Code: PGDG-7108

Teaching Faculty

Prof. Dr. Syed Amir Gilani (PhD)

Weeks	Topics
Week 1	Introduction to musculoskeletal ultrasound
Week 2	Ultrasound of tendons
Week 3	Ultrasound of ligaments
Week 4	Quiz & Assignment
Week 5	Ultrasound of muscles
Week 6	Ultrasound of bones
Week 7	Ultrasound of peripheral nerves
Week 8	Quiz & Assignment
Week 9	Ultrasound of shoulder joint
Week 10	Ultrasound of elbow joint
Week 11	Ultrasound of wrist joint
Week 12	Ultrasound of hand
Week 13	Quiz & Assignment
Week 14	International Procedures of Musculoskeletal system
Week 15	Color Doppler of Musculoskeletal system
Week 16	Final Exam

Semester 2

Course Name: Small Parts Ultrasound

Course Director: Associate Prof. Dr. Raham Bacha

Course Code: PGDG-7109

Teaching Faculty

1: Prof. Dr. Syed Amir Gilani (PhD)

2: Associate Prof. Dr. Raham Bacha (PhD)

Weeks	Course Content
Week 1	Major Neck Vessels-(1)
Week 2	The Thyroid Gland-(2)
Week 3	Thyroid Pathology-(2)
Week 4	Quiz & Assignment
Week 5	Vascular Pathology
Week 6	Penile Ultrasound-I-(1)
Week 7	Penile Ultrasound-I-(1)
Week 8	Quiz & Assignment
Week 9	Penile Anatomy-(2)
Week 10	Penile Pathologies
Week 11	The Scrotum(I)
Week 12	The Scrotum(II)-(1)
Week 13	Quiz & Assignment
Week 14	Interventional procedures in Beas-(2)
Week 15	Interventional procedures in Scrotum-(2)
Week 16	Final Exam

Semester 2

Course Name: Interventional Ultrasound & Patient Safety

Course Director: Prof. Dr. Syed Amir Gilani

Course Code: PGDG-7110

Teaching Faculty

1: Prof. Dr. Syed Amir Gilani (PhD)

2: Associate Prof. Dr. Raham Bacha (PhD)

Weeks	Topics
Week 1	Introduction to Interventional Ultrasound-(1)
Week 2	Vascular Access Procedures-(2)
Week 3	Renal biopsy and interventions-(1)
Week 4	Quiz & Assignment
Week 5	Musculoskeletal Interventions-(1)
Week 6	Thoracic Interventions-(2)
Week 7	Joint aspirations and injections(2)
Week 8	Quiz & Assignment
Week 9	Introduction to patient safety concepts
Week 10	Effective communication in healthcare
Week 11	Quiz & Assignment
Week 12	Medical Errors and Adverse Events-(2)
Week 13	Infection Control and Sterilization-(1)
Week 14	Ultrasound safety and bioeffects-(2)
Week 15	Case studies and best practices-(2)
Week 16	Final Exam

Semester 2

Course Name: Advances in Ultrasound

Course Director: Prof. Dr. Syed Amir Gilani (PhD)

Course Code: PGDG-7111

Teaching Faculty

1: Prof. Dr. Syed Amir Gilani (PhD)

2: Associate Prof. Dr. Raham Bacha (PhD)

Week	Course Content
Week 1	Introduction to Advances in Ultrasound Technology-(1)
Week 2	Physics and Principles of Ultrasound Imaging-(2)
Week 3	Obstetric Ultrasound Imaging-(1)
Week 4	Quiz & Assignment
Week 5	Abdominal Ultrasound Imaging-(1)
Week 6	Diagnosis and intervention in musculoskeletal disorders--(1)
Week 7	Basics of echocardiography &Introduction to cardiac imaging modalities-(2)
Week 8	Quiz & Assignment
Week 9	Ultrasound-guided procedures in biopsy and drainage-(2)
Week 10	Advances in minimally invasive interventions & Case studies and practical applications-(2)
Week 11	Principles of Doppler ultrasound &Color flow imaging techniques-(1)
Week 12	Quiz & Assignment
Week 13	The role of artificial intelligence in ultrasound diagnostics-(2)
Week 14	Advanced Cardiac Imaging-(2)
Week 15	Advanced Cardiac Imaging-(2)
Week 16	Final Exam