

PRIMARY HUMAN ANATOMY: BIOL20600
SPRING 2011

TENTATIVE LECTURE SCHEDULE INCLUDING LEARNING OBJECTIVES

Chapters and page numbers refer to McKinley and O'Loughlin. Use the "search" feature in A&P revealed to find specific structures on the CD-ROM.

Week 1 - Tues. Jan. 25

Course description, Learning objectives, Course policies, Schedule

- ❑ Introduction to Anatomic Terminology (Chapter 1, pp. 11-14, 18-19)
- ❑ Significance of anatomic position
- ❑ Description of anatomic planes and directional terms
- ❑ Human body regions
- ❑ Clinical View – Medical imaging

Thurs. Jan. 27

2. Introduction to the study of Muscles (Chapter 10 pp. 287, 290, 305-310, Table 9.2)
 - ❑ Attachments – Description of insertion and origin
 - ❑ Actions – Movements of synovial joints
 - ❑ Nerve supply – naming of cranial and spinal nerves
 - ❑ Skeletal muscle architecture
 - ❑ Selected Axial and Appendicular Muscles
 - ❑ Clinical View - Tendonitis
 - ❑ Muscle of the Day – Sternocleidomastoid m. – attachments, actions, nerve supply

Week 2 - Tues. Feb. 1

3. Bone and Cartilage Connective Tissues (Chapter 6)
 - ❑ Distribution of cartilage
 - ❑ Classification and anatomy of bones
 - ❑ Anatomy of a long bone
 - ❑ Comparison of Compact and Spongy bone
 - ❑ Ossification – Intramembranous and Endochondral
 - ❑ Clinical View – Osteitis Deformans
 - ❑ Muscle of the Day – Stylohyoid m.

Thurs. Feb. 3

4. Articulations (Chapter 9)
 - ❑ Relationship between joint mobility and stability
 - ❑ Structural and Functional classification of joints
 - ❑ Fibrous joints
 - ❑ Cartilaginous joints
 - ❑ Synovial joints
 - ❑ Clinical View – “Cracking Knuckles”
 - ❑ Muscle of the Day – Sternohyoid m.

Week 3 - Tues. Feb. 8

5. Muscles of Facial Expression – Chapter 11 pp. 321-328

- ❑ Superficial muscles of facial expression
 - Frontalis and occipitalis mm.
 - Orbicularis oculi and orbicularis oris mm.
 - Buccinator, zygomaticus major and minor mm.
 - Mentalis and levator labii superioris mm.
 - Platysma m.
- ❑ Clinical View - Idiopathic Facial Nerve Paralysis
- ❑ Surface anatomy of some muscles of facial expression (p. 396-397)
- ❑ Muscle of the Day – Posterior scalene m.

Thurs. Feb. 10

6. Muscles of Mastication and Extra-ocular muscles – Chapter 11 pp. 328-330

- ❑ Muscles of mastication – masseter, temporalis, medial and lateral pterygoid mm.
- ❑ Temporomandibular joint (TMJ)
- ❑ Clinical View – TMJ dysfunction
- ❑ Extrinsic muscles of the eye
- ❑ Clinical View - Strabismus
- ❑ Muscle of the Day – Serratus anterior m.

Week 4 - Tues. Feb 15: Review for Test #1

Thurs. Feb. 17th: **TEST # 1** – Lectures 1 - 6 + muscles to serratus anterior.

Know location, actions, origin, insertion and nerve supply for:
sternocleidomastoid m., stylohyoid m., sternohyoid m., temporalis m., masseter m.,
scalene mm. (ant., post, middle), serratus anterior m.

Week 5 - Tues. Feb. 22

7. Heart and Coronary Circulation (Chapter 22)

- ❑ Overview of cardiovascular system
- ❑ Anatomy of the heart
- ❑ Coronary circulation
- ❑ Clinical View – Angina pectoris
- ❑ Autonomic innervation of the heart
- ❑ Blood flow through the heart
- ❑ Muscle of the Day – Latissimus dorsi and Rhomboid major mm.

Thurs. Feb. 24

8. Vessels and Circulation (Chapter 23)

- ❑ Anatomy of blood vessels
- ❑ Structure of arteries, capillaries and veins (Table 23.1)
- ❑ Clinical View – Varicose veins and deep vein thrombosis (p. 688)
- ❑ Systemic circulation – major blood vessels (Fig. 23.9)
- ❑ Lymphatic trunks and ducts (Chapter 24)
- ❑ Clinical View - Lymphedema (p. 727)
- ❑ Muscle of the Day – Deltoid m.

Week 6 - Tues. March 1

9. Spinal Cord and Spinal Nerves (Chapter 16)

- ❑ Gross anatomy of the spinal cord and meninges
- ❑ Clinical View – Lumbar puncture
- ❑ Sectional anatomy of the spinal cord
- ❑ Spinal nerves and Dermatomes
- ❑ Clinical View - Shingles
- ❑ Muscle of the Day – Teres major m.

Thurs. March 3

10. Cervical and Brachial Plexuses (Chapter 16 beginning on p. 494)

- ❑ Cervical plexuses
- ❑ Brachial plexuses
- ❑ Branches of the brachial plexus
- ❑ Clinical View – Brachial plexus injuries
- ❑ Muscle of the Day – Coracobrachialis m.

Week 7 – Tues. March 8: Review for lecture test #2

Thurs. March 10: **TEST # 2** on Lectures 7-10 + muscles:

Rhomboid major m., Pectoralis major m., Pectoralis minor m., Latissimus dorsi m., Deltoid m., Trapezius m., Levator scapula m., Teres major m., Coracobrachialis m., Supraspinatus m., Infraspinatus m., Teres minor m., Subscapularis m.

March 14 - 18 **SPRING BREAK - Enjoy!**

Week 8 – Tues. March 22

11. Joints of the Back and Upper Extremity (Chapter 9 beginning on p. 264)

- ❑ Intervertebral articulations
- ❑ Sternoclavicular and Acromioclavicular joints
- ❑ Clinical View – Shoulder separation
- ❑ Glenohumeral joint
- ❑ Clinical View – Dislocation of the glenohumeral joint
- ❑ Elbow joint
- ❑ Muscle of the Day – Brachioradialis m.

Thurs. March 24

12. Joints of the Pelvis and Lower Extremity (Chapter 9 beginning on p. 272)

- ❑ Hip (coxal) joint
- ❑ Clinical View – Fracture of the femoral neck
- ❑ Knee joint
- ❑ Clinical View – Knee ligament injuries
- ❑ Clinical View - Arthritis
- ❑ Muscle of the Day – Supinator m.

Week 9 - Tues. March 29

13. Cranial nerves (Chapter 15 beginning on p. 470)

- ❑ Primary functions of the twelve cranial nerves
- ❑ CN I–XII – description, function(s), origin, conditions caused by nerve damage
- ❑ Muscles of the Day – Pronator teres mm.

Thurs. March 31

No lecture due to NCUR (National Council on Undergraduate Research) conference
Muscle project due by 5:00 pm

Week 10 – Tues. April 5

14. Autonomic Nervous System (Chapter 18)

- ❑ Comparison of Somatic and Autonomic Nervous systems
- ❑ Overview of ANS
- ❑ Parasympathetic division – cranial nerves
- ❑ Parasympathetic division – sacral spinal nerves
- ❑ Effects and general functions of parasympathetic nervous system
- ❑ Muscle of the Day – Flexor digitorum superficialis m.

Thurs. April 7

15. ANS – Sympathetic Division (Chapter 18 beginning on p. 545)

- ❑ Organization and anatomy of the sympathetic nervous system
- ❑ Sympathetic pathways
- ❑ Effects and general functions of sympathetic nervous system
- ❑ Clinical View – Horner syndrome
- ❑ Autonomic plexuses and reflexes
- ❑ Dual innervation
- ❑ Muscle of the Day – Extensor digitorum m.

Week 11 - Tues. April 12

16. Review of material for lecture test

Thurs. April 14: **TEST #3** - Lectures 11-15 + muscles

Brachioradialis m., Biceps brachii m., Brachialis m., Triceps brachii m., Pronator teres m., Supinator m., Flexor carpi radialis m., Flexor carpi ulnaris m., Flexor digitorum superficialis m., Extensor digitorum m., Extensor carpi radialis longus m., Extensor carpi ulnaris m., Biceps femoris m., Semitendinosus m. Semimembranosus m.

Week 12 - Tues. April 19

17. Regional Anatomy – Head and Neck

- ❑ Surface anatomy of the head and neck + triangles (pp. 396-399, Fig. 13.2)
- ❑ Clinical View – Tracheotomy (p. 399)
- ❑ Suprahyoid and infrahyoid muscles (Table 11.6)
- ❑ Arteries and veins of the Brain – cerebral arterial circle (Fig. 23.11)
- ❑ Major nerves of the head and neck
- ❑ Muscle of the Day – Gluteus medius and Gluteus maximus mm.

Thurs. April 21

18. Regional Anatomy – Upper Extremity

- ❑ Surface anatomy of shoulder and upper limb (pp. 404-407)
- ❑ Arteries and Veins of the upper limb (begins p. 703)
- ❑ Nerves of the upper limb (begins p. 495)
- ❑ Clinical View – Carpal tunnel syndrome (p. 368)
- ❑ Intrinsic muscles of the hand (Fig. 12.14)
- ❑ Clinical View – Anatomic snuffbox (p. 369)
- ❑ Muscle of the Day – Psoas major and Iliacus mm. (Iliopsoas m.)

Week 13 - Tues. April 26

19. Regional Anatomy - Thorax

- ❑ Surface anatomy of the thorax (pp. 399-401)
- ❑ Clinical View – Surface anatomy and CPR (p. 401)
- ❑ Circulation: Aorta and branches and Azygos system (Fig. 23.12, 13)
- ❑ Intercostal nerves (p. 494) and Muscles of respiration (Table 11.9)
- ❑ Clinical View – Paralysis of the diaphragm (p. 341)
- ❑ Muscle of the Day – Adductor longus m.

Thurs. April 28

20. Regional Anatomy: Back

- ❑ Surface anatomy of the back (pp. 402-403)
- ❑ Muscles of the vertebral column (Table 11.8)
- ❑ Erector Spinae group
- ❑ Transversospinalis group
- ❑ Muscle of the day – Adductor magnus m.

Week 14 - Tues. May 3

21. Regional Anatomy: Abdomen and Pelvis

- ❑ Surface anatomy of the abdomen and pelvis (p. 401)
- ❑ Muscles of the abdominal wall (Table 11.10)
- ❑ Clinical View – Hernias (p. 346)
- ❑ Muscles of the pelvic floor (pp. 346-349)
- ❑ Clinical View - Episiotomy (p. 348)
- ❑ Muscle of the Day – External oblique m.

Thurs. May 5

22. Regional Anatomy – Lower Extremity

- ❑ Surface anatomy of the lower limb (pp. 407-410)
- ❑ Clinical View – Gluteal intramuscular injections (p. 407)
- ❑ Clinical View – Compartment syndrome (p. 389)
- ❑ Arteries and Veins of the lower limb (pp. 707-710)
- ❑ Nerves of the lower limb (pp.501-508)
- ❑ Intrinsic muscles of the foot (pp. 389-391)
- ❑ Muscle of the Day – Extensor digitorum longus m.

Monday May 9th from 4:30-6:30 pm - **FINAL EXAM (in the Hill Center gym)**

Cumulative test with emphasis on lectures 17-22 + muscles:

Gluteus medius m., Gluteus maximus m., Psoas major m., Tensor fasciae latae m., Sartorius m., Gracilis m., Iliacus m., Adductor longus m., Rectus femoris m., Vastus lateralis m., Vastus medialis m., Vastus intermedius m., Adductor magnus m., External oblique m., Tibialis anterior m., Gastrocnemius m., Soleus m., Extensor digitorum longus m.

Acceptable Abbreviations for Lecture and Lab Tests:

Artery = a.	Arteries = aa.
Vein = v.	Veins = vv.
Nerve = n.	Nerves = nn.
Muscle = m.	Muscles = mm.
Ligament = lig.	Ligaments = ligs.
Joint = jt.	Joints = jts.
Anterior = ant.	Posterior = post.
Medial = med.	Lateral = lat.
Inferior = inf.	Superior = sup.
Superficial = superf.	Proximal = prox.
Major = maj.	Minor = min.

*Flexion = flex.	Extension = ext.
*Abduction = abd.	Adduction = add.

*Actions must be stated in relation to a joint – for example: flex. of elbow jt.