Functional and Developmental Anatomy of the Primate Skeleton (3 credits) will examine form and function through the comparative anatomy of humans and their primate kin. We will partition the body into three segments: back and limbs, body cavities, and head and neck and investigate how locomotor repertoire, diet, body size, and activity influence the primate bauplan. Integrating developmental bone biology, functional morphology and biomechanics, and descriptive musculoskeletal anatomy, we will explore the similarities and differences between the primate species.

PREREQUISITES: Introduction to Physical/Biological Anthropology or equivalent.

CLASS MEETINGS: 3 hours per week
Biosciences Building 202, Douglass Campus
Tuesday 9:15 am – 12:15 pm

LABORATORY SESSIONS: 1 hour per exam unit (3 hours total)
Biosciences Building 104, Douglass Campus
Pre-arranged small-group sessions

OFFICE HOURS: Biosciences Building 201a, Douglass Campus
Open door policy & by appointment
(rlquinn@rci.rutgers.edu, 932-6760)

GRADED WORK:
Three non-cumulative examinations will be given at the end of each anatomical unit and will contain both written and practical components. All examinations are equally weighted, and together, contribute 75% of your total grade. The remaining 25% of your grade is participation. You are expected to attend lecture and laboratory sessions, well prepared. Attendance points, pop-quizzes, and participation points will all contribute to your participation grade.

REQUIRED TEXTBOOK:
An Introduction to Primate Anatomy (2nd Edition) by Friderun Ankel-Simons

REQUIRED DISSECTOR:
A Comparative Primate Anatomy Dissection Manual edited by Rebecca Rogers Ackermann

Our textbook is available at the Rutgers University Bookstore. Copies of the dissector and a pdf will be made available the first week of class. Copies of handouts and accessory readings will be made available one week prior to discussion. Additional (optional) reference materials are also available upon request and/or housed in the laboratory.
ASSIGNED READINGS
All readings are from Primate Anatomy by Ankel-Simons, denoted by PA, or the dissection manual by Ackermann, DM.

<table>
<thead>
<tr>
<th>DATE</th>
<th>LECTURE TOPICS &amp; EXAMINATIONS</th>
<th>ASSIGNED READINGS</th>
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</table>
| Jan 17 | Course Overview  
The Primate Order, Taxonomy,  
The Primate Body | PA: Chapters 1-4  
DM: 1-7                                   |
| Jan 24 | Anatomical & Directional Terms,  
Bone Biology, The Musculoskeletal System  
Locomotor Repertoires of Primates | Handout  
PA: 327-347                             |
| Jan 31 | Back: Vertebral Column,  
Postural Behavior, Habitat Structure | PA: Chapter 8  
DM: 8-35                                 |
| Feb 7  | Shoulder Girdle and Forelimb,  
Locomotion, Habitat Manipulation | PA: Chapter 8  
DM: 8-35                                 |
| Feb 14 | Pelvic Girdle and Hindlimb,  
Locomotion, Body Size and Proportions | PA: Chapter 8  
DM: 36-64                                 |
| Feb 21 | FIRST EXAMINATION                                                   |                                       |
| Feb 28 | Primate Diet, Body Size and Proportions,  
Expensive Tissue Hypothesis | PA: Chapter 4, Handout  
Accessory Reading                          |
| Mar 7  | Thorax, Circulatory and Respiratory Systems                         | PA: Chapter 8                           |
| Mar 14 | Spring Break, NO CLASS                                              |                                       |
| Mar 21 | Abdomen, Diet and the Intestinal Tract                              | PA: Chapter 9 (380-385)                |
| Mar 28 | Pelvic cavity, Reproduction,  
Growth and Development                                                | PA: Chapters 10-11                     |
| Apr 4  | SECOND EXAMINATION                                                  |                                       |
| Apr 11 | Skull, Senses and the Brain,  
Dentition, The Oral Cavity, and Diet                                 | PA: Chapters 5, 6, 7, 9                |
| Apr 18 | Eyesight, Olfaction, and Hearing;  
Activity Patterns, Predator-Prey Interactions | PA: Chapters 5, 9                     |
| Apr 25 | Species Recognition, Male-Male Competition,  
Mate Selection, Defense                                              |                                       |
| May 2  | Reading Day, NO CLASS                                               |                                       |
| May 5  | THIRD EXAMINATION                                                   | 12:00 – 3:00 pm                        |

LABORATORY RULES & REGULATIONS

BIO 202
No food or drink is permitted in the laboratory. Open lab hours will be scheduled throughout the week for independent study. When handling skeletal material, you must work over one of the carpeted tables. Use of incandescent light is encouraged to view bone features.

BIO 104
See additional handout.