



# INDIANA UNIVERSITY

DEPARTMENT OF ANATOMY AND CELL BIOLOGY  
School of Medicine

December 5, 2016

Randy R. Brutkiewicz, PhD  
Associate Dean for Graduate Studies

Janice Blum, PhD  
Associate Vice Chancellor for Graduate Education at IUPUI  
Associate Dean of the University Graduate School, Indiana University

Dear Drs. Brutkiewicz and Blum,

I am writing to formally request a minor modification to the Department-Based and IBMG-Based PhD Programs in Anatomy and Cell Biology (see attached). Specifically, we wish to add a new required course to both curricula:

**GRDM G507 Reagent Validation as a Means for Enhanced Research Reproducibility (1 cr.)**

We believe that adding this course to the curricula will better prepare our students for careers in research and provide compliance with new granting requirements. This curricular modification has been unanimously approved by the department's Graduate Studies Committee.

Thank you for your consideration. Please let me know if you require further information.

Sincerely,

James J. Brokaw, PhD, MPH  
Vice Chair for Education  
Director, Education Track PhD Program

CC:

K. Jones  
J. Bidwell

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## Degree Plan for Department-Based PhD in Anatomy and Cell Biology (Non IBMG)

### Course Requirements

A total of 90 credit hours is required, with 32 hours in courses other than research.

### Core Courses

- At least 4 of the 5 following courses:
  - ANAT D501 Functionally-Oriented Human Gross Anatomy (5 cr.)
  - ANAT D502 Basic Histology (4 cr.)
  - ANAT D527 Neuroanatomy: Contemporary and Translational (3 cr.)
- OR**
- ANAT D701 Translational Neuroscience (5 cr.)
- ANAT D853 Human Developmental Anatomy (3 hr.)
- GRDM G817 Molecular Basis of Cell Structure and Function (2 cr.)
- ANAT D861 Seminar (1 cr.) – enrollment is required each year in program
- GRDM G507 Reagent Validation as a Means of Enhanced Research Reproducibility (1 cr.)
- An approved statistics course

### Minor Courses

A minimum of 12 credit hours of course work other than dissertation research in a related program (e.g., biochemistry, biophysics, medical genetics, microbiology, neurobiology, pathology, pharmacology, physiology, statistics, toxicology, or life science). For a minor in life science, at least 6 credit hours must be taken in one department. The minor must be approved by the student's advisory committee.

### Other Requirements

Students are required to gain experience in teaching by assisting one semester in one of the departmental courses.

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## Degree Plan for Anatomy and Cell Biology PhD offered through IBMG

### Course Requirements After Completion of IBMG Core Coursework in Year 1

Students will be required to take at least 32 credit hours of courses, other than research and lab rotations, for a total of 90 hours. Requirements for the major in Anatomy & Cell Biology include Ethics (G505), Skills courses (G507, G655, and G855), Seminar (D861) in years 2 and beyond, and two courses (or one anatomical course plus two courses from the cell biology list) chosen from the following list:

- Gross Anatomy (D501)
- Histology (D502)
- Neuroscience (D527 or D701, but both cannot be counted as core courses)
- Two courses focusing on advanced aspects of cell biology. Courses for this include Molecular Basis Cell Structure and Function (G817), Basic Bone Biology (G819), Concepts of Cancer Biology (G852), Functional Neuroanatomy (N611), any of the Fundamental Neuroscience courses (G743, G744, G745, N612, N614, N616), or other courses approved at the discretion of the Advisory Committee

Students choosing the Life Sciences minor require 12 credits for the minor, though 9 credits may come from the IBMG first semester required core courses: G715, G716, and G717 (all 3 credits each). The remaining 3 or more credits will come from other graduate courses not included in the major, but cannot be research credits (this includes rotation credits—e.g. G718).

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