

History of Morphology

Instructor: David Daegling

Office: Turlington B376

Office Hours: M 9:30-10:30 AM, W 1-3 PM

Class Meets: T periods 8-10, TUR 2333

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COURSE DESCRIPTION

We critically examine the history of ideas in comparative anatomy and morphology from Aristotle to the present. Emphasis is on the role of theory in shaping interpretations of morphology in comparative, functional, developmental and phylogenetic contexts. The impact of evolutionary theory on morphological thought is a central theme of the seminar.

TEXTS

Russell ES (1917) *Form and Function* (**FF**, this title is out of print). Various vendors on the web are selling reprints. Project Gutenberg (<http://www.gutenberg.org>) has a free web version.

Gould SJ (1977) *Ontogeny and Phylogeny*. Cambridge, Belknap (**O&P**).

Amundson R (2007) *Richard Owen on the Nature of Limbs*. University of Chicago Press (**RO**).

Additional readings are posted on Canvas (<http://lss.at.ufl.edu>).

COURSE REQUIREMENTS

You will be evaluated primarily on your contributions to discussion in the seminar. You are expected to be prepared to discuss all reading in depth every week. Each week one student will lead the discussion of the week's topic and readings. This should not be a synopsis of the reading but rather an exploration of the issues and implications of the material. Leading two discussions during the semester and weekly participation in discussion will account for two-thirds the course grade.

In order to situate the course material within the domain of biological anthropology and/or organismal biology, each student will prepare a detailed discussion of a current issue, research program or research group within the discipline, emphasizing how the theoretical position of that issue, program or group has been shaped by historical influences. There is no set length to this paper, although 5000 – 10000 words ought to suffice. The topic and its scope are subject to instructor approval by 10/26. Students will present their findings from this paper at the last class meeting. The paper will account for one-third the course grade, and is due on the last day of class (12/7).

GENERAL CLASSROOM POLICIES

- SILENCE OR TURN OFF CELL PHONES
- Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.
- UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class
- Information on current UF grading policies for assigning grade points can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.
- Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.
- Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.
- Other links: Counseling and Wellness Center: <https://counseling.ufl.edu/>, 392-1575; University Police Department: 392-1111 or 9-1-1 for emergencies.

COURSE SCHEDULE AND READINGS

DATE	DISCUSSION TOPIC	REQUIRED READINGS
8/24	Course outline and expectations	
8/31	Early Ruminations	FF Ch. 1; Galen <i>De Anatomicis Administrationibus</i> excerpts ; Aristotle Books I,II; Loukas et al., 2011
9/7	Founders of Comparative Morphology	FF Chs. 1-2; O&P Ch. 2; Blitz 1999; Vogt, 2008
9/14	Cuvier – Geoffroy Debate	FF Chs. 3-5; Panchen, 2001; McBirney et al., 2009
9/21	Transcendentalists I	FF Chs. 6,7,9-12; O&P Ch. 3; Brady 1984
9/28	Transcendentalists II: Owen	RO VII-XCI; 1-86. FF Ch. 8
10/5	Darwinian Thought	FF Ch. 13; O&P Ch. 4; Amundson 1998
10/12	Haeckel and the Jena School	FF Chs. 14-17; O&P Ch. 5; Nyhart 1987
10/19	Rise of Materialism	FF Chs. 18-20; O&P Ch. 6; Roll-Hansen 1984
10/26	The Modern Synthesis	O&P Ch. 7; Hoßfeld & Olsson 2003; Webster & Goodwin 1984; Grene 1958
11/2	Atomism versus Holism	Dullemeijer 1968; Muller and Wagner 1991; Bastir 2018
11/9	Teleology and Homology	O’Grady 1984; Ruse 2000; Hall 2000; Lauder 1982
11/16	Constructional and Theoretical Morphology	Seilacher 1984; Thomas & Reif 1993; Gudo et al. 2002
11/23	Evolutionary Morphology	Liem, 1991; Galis 1996; Rieppel 1994; Hall 2001
11/30	Evo-Devo	O&P Ch. 1; Lovejoy et al. 1999; Love, 2003; Breuker et al. 2006
12/7	Student presentations	