Charles Darwin’s theory of evolution by natural selection may be the single most influential scientific theory ever proposed. It would be safe to say that the world we inhabit has not been the same place since 1859, when Darwin, nudge on by Alfred Russel Wallace’s co-discovery of the idea of natural selection, first published *On the Origin of Species*. Since that time the Darwinian theory has inspired considerable self-reflection, opened up whole new fields of inquiry, and provoked controversy after controversy. This course examines the origin, nature, and consequences of Darwin’s evolution theory, with an emphasis on the interrelationships among the social, cultural, and intellectual dimensions of the scientific enterprise. Topics will include religious opposition to the theory; applications, and misapplications, of the theory, such as Social Darwinism, eugenics, and sociobiology; the influence of Darwinian thought on politics, literature, and the arts; and various philosophical issues raised by the theory, such as biological determinism and free will. A background in the sciences is not assumed for this course, but you are expected to make a sincere effort to understand the nature of the Darwinian theory and the scientific basis of some of the controversies surrounding its applications. You are strongly encouraged to visit the many exhibits at the American Museum of Natural History, such as those on human origins and fossil mammals.

**Objectives:** From my perspective, this course has three major goals. If all goes as planned and hoped, at the end of the semester (1) you should have become familiar enough with the main features of the Darwinian Revolution to fully understand its significance, including understanding what Darwin actually said and how various people have interpreted and misinterpreted what he said, (2) you should be able to sort through and analyze for yourself many of the current applications of Darwinian theory and controversies involving the theory, whether in newspaper or magazine articles, television programs, legislative debates and court cases, or whatever, and (3) you should have developed an understanding of the Darwinian Revolution that is meaningful for you personally.

**Course requirements:** (1) Attendance, punctuality, and participation; (2) careful and critical reading of the texts; (3) regular response papers on the readings; and (4) three formal essays. See details on following page.

**Office hours and contact information.** Please feel free to drop by during the hours listed below or to make an appointment for another time. I am fairly vigilant about keeping office hours, but unexpected events sometimes intervene, so it helps to let me know in advance even if you plan to come by during regular office hours.

Gene Cittadino  
1 Washington Place, Room 412
Office hours: Weds. 3:30-5:30 & Thurs. 3-5; also Tues. 3-5 (by appointment only)  
(all other times by appointment only)
ec15@nyu.edu  212-992-7774
Texts (The following have been ordered at the NYU Bookstore and all except Origin of Species and Descent of Man are on reserve in the Bobst Library):

Kurt Vonnegut, Galápagos
Charles Darwin, Origin of Species (Penguin--this edition only)
Charles Darwin, Voyage of the Beagle (Penguin--this edition only)
Charles Darwin, Autobiographies (Penguin--this edition only)
Charles Darwin, Descent of Man, & Sexual Selection in Relation to Sex (Penguin-this ed. only)
Edward Larson, Evolution: The Remarkable History of a Scientific Theory (order online)
Marlene Zuk, Sexual Selections: What We Can and Can't Learn About Sex From Animals
Gordy Slack, The Battle Over the Meaning of Everything

There will be a number of supplementary readings as well. These will be available either as class handouts, through online sources, or posted on Blackboard. Note that the Blackboard articles are there for online access only and not for downloading.

A Note on the Darwin texts: Please use only the Penguin edition of both the Darwin texts. There are many published versions of all these books, but please read the Penguin editions, as these are the versions of Darwin's works that I wish to use. Both Origin and Descent are available free online in several versions. You should own a copy, but if you wish to save money and shelf space, I suggest using an online version of Descent not Origin.

Basis for evaluation. (1) Attendance and participation. Participation is sometimes difficult to gauge; it doesn't necessarily mean speaking up on every point in every class. I'll make an effort to evaluate your level of participation in a combined attendance-participation component (10%) of your grade. (2) Response papers. There will be one response paper on the reading due each week, except when essays are due (15%). These should be no more than a page in length and can be informal--single spacing is fine for response papers. (3) Three formal essays of 6-8 pages each (75%). The essays will be based on course readings for the most part, but there will be options to use material beyond the course readings. Details to follow. Tentative due dates are indicated on the schedule.

A note on response papers. You must turn in one per week, either Monday or Wednesday, based on the readings for that day. Response papers receive full credit only if turned in on time.

Ground rules. Attendance and etiquette. I take attendance and expect you to attend every class. The class begins promptly at 2:00. Please respect your classmates and arrive on time; late arrivals always disrupt the atmosphere of a classroom, as do mid-class exits and re-entries. The only good reason for leaving the classroom in the middle of a class period is sudden illness, so expect to remain for the full 75 minutes. For obvious reasons, turn off cellular phones before coming to class. The success of this class depends upon open discussions. Feel free to speak your mind, but also be prepared to listen and respect the opinions of others. Turn off laptops. If you bring a laptop, please do not turn it on or use it during class time. Notetaking with pen or pencil is a wonderful exercise of the mind and hand. Late papers. Papers are due on the dates designated. A paper that is not turned in on time is late, regardless of the reason. Having work due in other classes is not an acceptable excuse. Unless the paper is late due to illness or an emergency, it will be downgraded. Documentation and plagiarism. I will assume that all written work is your own and that you understand the basic rules for acknowledging outside sources. If you don't, please ask; I'll be more than happy to assist you. See the official Gallatin statement on academic integrity which follows the schedule of topics and readings (page 5).
SCHEDULE OF TOPIC AND READINGS

We will try to keep to this schedule if at all possible, but anticipate a few changes over the course of the semester. You should be prepared to discuss the reading that is listed under a given date on that date. Handouts from week to week will indicate which readings to emphasize for discussion. All readings listed other than the course texts will be either handed out in class or made available on Blackboard.

I. Setting the stage

W Sept. 7  Introductions; Darwinism today
Robert Wright, "Dancing to Evolution's Tune" (handout)
Brownstein, "The Great Divide" (handout)

M Sept. 12 Discovering extinction & deep time
Cuvier, "Living and Fossil Elephants" and "The Megatherium from South America"
Larson, Evolution, chap. 1
(Begin reading Vonnegut, Galápagos)

W Sept. 14 Stephen Gould’s three riddles
"Darwin: Revolution in Thought" (VIDEOTAPE)
Paley, Natural Theology, excerpts (handout)
(Continue reading Vonnegut)

M Sept. 19 Humankind a million years from now?
Vonnegut, entire

II. Darwin, Wallace, and the birth of natural selection theory

W Sept. 21 Evolution before Darwin; Darwin's early life
Larson, Evolution, chap. 2
Darwin, Autobiographies, pp. 1-38

M Sept. 26 Darwin comes of age: the Beagle voyage
Darwin, Voyage of the Beagle, chaps. 1, 2, & 5 (and look over the chronology, pp. ix-xi); optional: Introduction & Appendix One

W Sept. 28 The voyage continues: a river excursion, Tierra del Fuego, and Galapagos
Darwin, Voyage, chaps. 10, 11, & 14 (chap. 9 is optional)

M Oct. 3 Tahiti, New Zealand, Australia, South Africa, and home
Darwin, Voyage, chaps. 20, 21, & 23

W Oct. 5 From the Beagle to transmutation
Darwin, Autobiographies, pp. 39-68
FIRST ESSAY DUE
M Oct. 10  Columbus Day celebrated, no class

W Oct. 12  Variation, natural and domestic
           Darwin, *Origin of Species*, Darwin’s introduction and chaps. 1 & 2

M Oct. 17  The argument stated: Darwin, Wallace, and natural selection
           Darwin, *Origin*, chaps. 3 & 4; Alfred R. Wallace, *On the Tendency of Varieties to Depart Indefinitely from the Original Type*

W Oct. 19  Difficulties?
           Darwin, *Origin*, chaps. 6 & 7

M Oct. 24  Difficulties, yes, but “There is grandeur in this view of life…”
           Darwin, *Origin*, chap. 14
           Larson, *Evolution*, chap. 3

III. Reactions, applications, implications

W Oct. 26  Reactions: Darwinism, naturalism, evolutionism in the late 19th century
           Larson, *Evolution*, chaps. 4 & 5
           Herbert Spencer, *The Development Hypothesis* & *Poor Laws*

M Oct. 31  Darwin takes the plunge: human evolution
           Excerpts from Darwin’s *Descent of Man*, chaps. 4 & 5

W Nov.  2  Darwin on women, savages, and sexual selection
           Excerpts from Darwin’s *Descent of Man*, chaps. 19, 20, & 21

M Nov.  7  Human evolution and the Darwin-Wallace debates
           Larson, *Evolution*, chap. 6
           Alfred Wallace, *The Limits of Natural Selection as Applied to Man*
           Review Darwin, *Descent*, chap. 21

W Nov.  9  Genetics and eugenics
           Larson, chaps. 7 & 8
           Davenport, *The Geography of Man in Relation to Eugenics*
           The Eugenics Archive (online source, TBA)

F Nov. 11  SECOND ESSAY DUE (note: this is not a class day)

M Nov. 14  The Scopes Trial revisited
           Hunter, *A Civic Biology*, excerpts (Blackboard)
           *Inherit the Wind* (film clips)

W Nov. 16  The evolutionary synthesis
           Larson, *Evolution*, chap. 10
           Gould, *The Most Unkindest Cut of All*
IV. Contemporary Issues

M Nov. 21  Altruism: a problem for Darwinism?
Richard Dawkins, "Why Are People?" E. O. Wilson, "The Morality of the Gene"
Zuk, Sexual Selections, Intro. and chap. 1

W Nov. 23  No class
Read Larson, Evolution, chaps. 11 & 12 as background for this unit

M Nov. 28  Sex, marriage, reproduction, and the scale of nature
Zuk, chaps. 3-6

W Nov. 30  Learning from animals? Violence, sexual orientation, and math
Zuk, chaps. 8, 11, 12, and Conclusion

M Dec. 5  Evolution and the Pope: prelude to the intelligent design controversy
John Paul II, Michael Ruse, Richard Dawkins, and Stephen Gould
(Blackboard)
Slack, The Battle Over the Meaning of Everything, Prologue - chap. 2

W Dec. 7  The battle is joined: Kitzmiller v. Dover Area School District
Slack, chaps. 3-7
Judgment Day, excerpts, Part I (video)

M Dec. 12  Irreducible complexity? The curious story of the flagellum
Slack, chaps. 8-12
Judgment Day, excerpts, Part II; possible excerpts from Flock of Dodos also

W Dec. 14  What's it all mean? What's at stake? Parting thoughts
Slack, chap. 13-15; Larson, Evolution, Afterword

F Dec. 16  FINAL ESSAY DUE (no exceptions!)

Academic integrity statement:

Here is the official Gallatin School statement on academic integrity. Suspected cases of plagiarism will be handled in accordance with Gallatin's student discipline rules.

"As a Gallatin student you belong to an interdisciplinary community of artists and scholars who value honest and open intellectual inquiry. This relationship depends on mutual respect, responsibility, and integrity. Failure to uphold these values will be subject to severe sanction, which may include dismissal from the University. Examples of behaviors that compromise the academic integrity of the Gallatin School include plagiarism, illicit collaboration, doubling or recycling coursework, and cheating. Please consult the Gallatin Bulletin or Gallatin website [www.gallatin.nyu.edu/academics/policies/policy/integrity.html] for a full description of the academic integrity policy."