

**2010 Cortona Science Maymester  
BCMB/GENE 3433 Syllabus  
Travel Schedule and Important Information  
May 8 – June 2, 2010**

**Saturday, May 8**

Depart US for Rome

**Sunday, May 9**

Arrival in Rome. [If your plane arrives by 11:00 am, you will be able to take the bus departing the Fiumicino Airport for Cortona, followed by dorm check-in and Cortona orientation. For students arriving after 11:00 am, someone will be present at the airport to escort you to Cortona by train.]

7:30 pm, Dinner at Toninos

**Monday, May 10**

8:30-9:25 am, Anderson, Lecture #1: *Chromosomes* (Watson, Chapters 1 and 11)

9:35-10:30 am, Puett, Lecture #1: *The Hypothalamic-Pituitary-Target Axis: Gonadal, Adrenal, and Thyroid Regulation* (H pp. 2-5; R pp. 1-13)

10:40-11:35 am, Discussion I

11:45-12:40 pm, Discussion II

Discussion topics (introductions and discussion, but no papers required):

Anderson, *Continued Topics from Lecture* (Discussions and papers will usually be based on lectures and book chapters assigned for the previous session)

Puett, *Continued Topics from Lecture* (see p. 2 of Puett's Handbook for all assigned discussion readings in the Handbook; you should also review the appropriate figures)

7:30 pm, Dinner at Toninos

**Tuesday, May 11**

8:30-9:25 am, Puett, Lecture #2: *Fertilization and Sex Determination/Differentiation*, (H pp. 5-8, R pp. 14-20)

9:35-10:30 am, Anderson, Lecture #2: *Genes* (Watson, Chapters 2 and 12)

10:40-11:35 am, Discussion I

11:45-12:40 pm, Discussion II

Discussion topics (papers due)

Anderson: *How Do We Analyze Genetic Diseases?* [papers: A1, B1]

Puett: *Clinical Correlations on Reproductive, Adrenal, and Thyroid Endocrinology* (H, pp. 8-10) [papers: A2, B2]

7:30 pm, Dinner at Toninos

**Wednesday, May 12**

8:30-9:25 am, Anderson, Lecture #3: *Biotechnology and Bioethics* (Watson, Chapters 4 and 5)

9:35-10:30 am, Puett, Lecture #3: *Digestion and Metabolism* (H pp. 10-13; R pp. 21-29)

10:40-11:35 am, Discussion I

11:45-12:40 pm, Discussion II

Discussion topics (papers due):

Anderson: *How Do We Apply Bioethical Reasoning? Case Studies*. [papers: A3, B3]

Puett: *Clinical Correlations on Sex Determination/Differentiation and Digestion* (H, pp. 13-15) [papers: A4, B4]

7:30 pm, Dinner at Toninos

**Thursday, May 13**

8:30-9:25 am, Puett, Lecture #4: *Glucose Homeostasis and Diabetes Mellitus* (H pp. 15-19; R pp. 30-36)

9:35-10:30 am, Anderson #4, Lecture: *More on Human Genetics* (Watson, Chapters 3 and 8)

10:40-11:35 am, Discussion I

11:45-12:40 pm, Discussion II

Discussion topics (papers due):

Anderson: *Bioethical Case Studies* [papers: A2, B2]

Puett: *Clinical Correlation on Diabetes Mellitus and Obesity* (H, pp. 19-21) [papers: A1, B1]

7:30 pm, Dinner at Toninos

**Friday, May 14**

8:30-9:25 am, Anderson, Lecture #5: *DNA Fingerprinting* (Watson, Chapter 10)

9:35-10:30 am, Puett, Lecture #5: *Neurobiology and Muscular Function* (H pp. 21-24; R pp. 37-38)

10:40-11:35 am, Discussion I

11:45-12:40 pm, Discussion II

Anderson: *Bioethical Case Studies* [papers: A4, B4]

Puett: *Clinical Correlations on CNS and Muscle Disorders* (pp. 24-25) [papers: A3, B3]

5:30-6:30 pm, Anderson and Puett, *Question-Answer Session*

7:30 pm, Dinner at Toninos

**Saturday, May 15**

Exam 1, 10:00 am-12:00 pm (covers material from May 10-14)

**Sunday, May 16**

Open (no scheduled activities)

**Monday, May 17 - Friday, May 21, ARTS 2001** [*Cortona, Siena, and Florence, see p. 6 for hotel information*]

**Saturday and Sunday, May 22 and 23**

Open (no scheduled activities)

**Monday, May 24**

8:30-9:25 am, Puett, Lecture #6: *Cell Cycle, Oncogenes, and Cancer* (H pp. 26-28; R pp. 39-46)

9:35-10:30 am, Anderson, Lecture #6: *Genetics of Complex Traits* (Watson, Chapters 6, 7, and 13)

10:45-12:00 pm, Ivarie, Guest Lecture: *Rosalind Franklin, The Dark Lady of DNA*

7:30 pm, Dinner at Toninos

**Tuesday, May 25**

8:30-9:25 am, Anderson, Lecture #7: *Random Mating and Inbreeding in Human Populations*

9:35-10:30 am, Puett, Lecture #7: *Cancer Biology* (H pp. 28-31; R pp. 47-54)

10:40-11:35 am, Discussion I

11:45-12:40 pm, Discussion II

Discussion topics (papers due):

Anderson: *Case Study on Inbreeding* [papers: A1, B1]

Puett: *Clinical Correlations on Cancer* (H, pp. 31-33) [papers: A2, B2]

7:30 pm, Dinner at Toninos

**Wednesday, May 26**

8:30-9:25 am, Puett, Lecture #8: *Cardiovascular Biology* (H pp. 34-35; R pp. 55-63)  
9:35-10:30 am, Anderson, Lecture #8: *Gene Flow and Natural Selection in Human Populations*  
10:40-11:35 am, Discussion I  
11:45-12:40 pm, Discussion II  
Discussion topics (papers due):  
Anderson: *Hands-On Practice in Population Genetics* [papers: A3, B3]  
Puett: *Clinical Correlations on Cardiovascular Biology* (H, pp. 35-38) [papers: A4, B4]  
7:30 pm, Dinner at Toninos

**Thursday, May 27**

8:30-9:25 am, Anderson, Lecture #9: *Genetic Drift and Molecular Evolution in Human Populations*  
9:35-10:30 am, Puett, Lecture #9: *HIV and the Immune System* (H pp. 38-40; R 64-68)  
10:40-11:35 am, Discussion I  
11:45-12:40 pm, Discussion II  
Discussion topics (papers due):  
Anderson: *What Kind of Selection Acts on Humans Now?* [papers: A2, B2]  
Puett: *Clinical Correlations on HIV and H1N1* (H, pp. 40-42) [papers: A1, B1]  
5:30-6:30 pm, Anderson and Puett, *Question-Answer Session*  
7:30 pm, Dinner at Toninos

**Friday, May 28**

8:30-9:25 am, Anderson, Lecture #10: *Human Evolution and Evolutionary Medicine* (Watson, Chapter 9 and Coda)  
9:35-10:30 am, Puett, Lecture #10: *Stem Cells and Cloning* (H pp. 42-44; R pp. 69-78)  
10:40-11:35 am, Discussion I  
11:45-12:40 pm, Discussion II  
Discussion topics (papers due):  
Anderson: *Do Science and Religion Have to Clash Over Human Evolution?* [papers: A4, B4]  
Puett: *Position Papers on Stem Cells and Cloning* (H, pp. 44-45) [papers: A3, B3]  
4:30-6:30 pm, Exam 2 (covers material from May 24-28)  
7:30 pm, Dinner at Toninos

**Saturday, May 29**

Dorm check-out and bus to Rome for hotel check-in

**Sunday, May 30 - Tuesday, June 1, ARTS 2001** [Rome, see p. 6 for hotel information]**Wednesday, June 2**

End of program with bus transfer from Rome hotel to Fiumicino airport

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It is essential that students attend all lectures and discussion groups, having completed the required readings and assignments beforehand. Timeliness is expected at all events. Any absence will require a written explanation due no later than the following day, and it is the prerogative of the instructor to consider the absence excused or unexcused, or to request additional information or documentation. The instructor may require an additional assignment for missed events. The small class size provides an unusual opportunity for close student-faculty interactions, and full participation in all events is essential. The following paperback textbook, available at the UGA bookstore (or order on-line), is required by Prof. Anderson and must be purchased in the US

before departure and taken to Cortona: James D. Watson, *DNA, The Secret of Life*, Alfred A. Knopf, 2003, ISBN-10: 0375710078. He will also provide copies of articles that you must take with you to Cortona for his discussion sections. Prof. Puett will provide each student with a Handbook (H) and a Readings (R) document at orientation; these must also be taken to Cortona. All required daily readings for both lecturers and discussions are given in the Syllabus after the lecture/discussion titles. It is important that all reading and preparation for lectures and group discussions be completed prior to class each day.

BCMB/GENE 3433 is taught using a combination of lectures, group discussions (with full participation and leadership by the students, instructors serving as moderators and facilitators), and four papers to be submitted at the end of the assigned discussion period. The papers should have your name and the title/topic of the paper at the top of the page followed by text (about 500 words). You are encouraged to include a figure(s) and/or table(s) when appropriate, and reference(s), which may be websites visited for information, must be given. The papers should be submitted using single-spaced typing (12 font). There are two Discussion periods, I and II, scheduled most class days from 10:40 am – 12:40 pm. The class is divided into two major groups, A and B, and each of these is sub-divided into four sub-groups, 1-4. For Discussion period I, A meets with Prof. Anderson and B with Prof. Puett; for Discussion period II, the groups exchange, B with Prof. Anderson and A with Prof. Puett. The smaller groups, 1-4, will have specific writing and leadership assignments on various days (see schedule), but all students are expected to be prepared for and to participate in the discussions. Four papers (total) are required of each student. The student group (A or B)/sub-group (1-4) assignments are given below.

A1: Casale, Graham, Lawrence, Rhaesa  
A2: Edwards, Grochowska, Lee, Simonti  
A3: Hawkins, Hood, Speros, Tyndall, Yun  
A4: Hickman, Howard, Melton, Peeples, Tran

B1: James, Kaushish, Miskovic, Veltri  
B2: Johnson, Morgan T., Nishanova, Wade  
B3: Kamper, Morgan K., White, Wong  
B4: Lanier, Marx, Nyhoff, Taylor, Tosini

Final grades will be based on the following @ 33.333% each: (i) Exam 1, (ii) Exam 2, and (iii) papers, attendance, and participation in the discussions and lectures.

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### ***BCMB/GENE 3433 Faculty***

Wyatt W. Anderson, Ph.D., Alumni Foundation Distinguished Professor of Genetics  
<WYATT@UGA.EDU>  
J. David Puett, Ph.D., Regents Professor of Biochemistry and Molecular Biology  
<PUETT@BMB.UGA.EDU>  
Guest Lecturer: Robert Ivarie, Ph.D., Professor of Genetics  
<IVARIE@UGA.EDU>

### ***Programmatic and IT Services***

Professors Rick Johnson <[RNJ@uga.edu](mailto:RNJ@uga.edu)>, Director of the Cortona Program, and Ben Reynolds <[BENR@uga.edu](mailto:BENR@uga.edu)>, Director of the Cortona Maymester, School of Art.

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***Letters (Airmail) and Packages Sent via Courier Service to Students Should be Marked and Sent to:***

Student Name  
c/o The University of Georgia Studies Abroad Program  
Via Delle Santucce 2  
52044 Cortona (AR) ITALY

DO NOT send medications, vitamins, cosmetics, or food (or do not declare them) because Italian Customs have become much stricter on such imports. Every time contents such as these are seen on a packing list, they make sanitary inspection or food inspection and charge at least 30-40 euro per package. Do not declare value over \$50, and state that the articles are used and for personal use while in Italy. This should help avoid high duty pricing. There will be always exceptions, but the program hopes to make it easier and less expensive for the students and faculty.

***Address for Luggage Tags When Traveling to Cortona:***

Student Name  
c/o Enza Valente, University of Georgia Studies Abroad Program  
Piazza Signorelli, 14  
52044 Cortona, (AR) ITALY  
Tel: 011 39 0575 603 157

***Telephone Calling in Italy:***

Please keep in mind that Italy is 6 hours AHEAD of Eastern Standard Time when calling. Students should be called in the Kehoe Center after 11:00 pm Italian time only in emergencies since other students will be awakened. When calling a student in the Kehoe Center, there is only one shared phone among all the students. This phone is for incoming calls only and calls must be limited to 10-15 minutes. For longer conversations, it is better that the student call from a pay phone with a telephone calling card.

***Contact Phone Numbers in Italy and Georgia:***

**1. John D. Kehoe Center**

Tel: 011 39 0575 630275 (incoming calls only, please do not call after 11:00 PM Italian time, calls limited to 15 minutes)

**2. Ristorante Tonino ( Mon.-Fri., 7:30-9:00 pm /Italian time, 1:30-3:00 pm /Eastern Standard Time) Tel:**  
011 39 0575 630633 (incoming calls only)

**3. Program Offices in Italy**

52044 Cortona (Arezzo) ITALY  
Tel: 011 39 0575 603 157  
Fax: 011 39 0575 630 181

**4. Program Offices in Athens**

The University of Georgia Studies Abroad Program/Cortona, Italy  
Lamar Dodd School of Art  
River Road  
Athens, GA 30602  
Tel: 706 425 2900  
Fax: 706 425 2903  
e-mail: [cortona@uga.edu](mailto:cortona@uga.edu)

## **Hotel Contact Information in Florence and Rome:**

Students will be assigned to one of the following hotels in Florence (one or more faculty members will be staying in each hotel), and the hotels are in close proximity to each other.

Hotel Kursaal & Ausonia

[www.kursonia.com](http://www.kursonia.com)

Via Nazionale, 24 (nero)

50123 Florence, Italy

Tel: 011 39 055 496 547

Hotel Nuova Italia

[www.hotel-nuovaitalia.com](http://www.hotel-nuovaitalia.com)

Via Faenza, 26

50123 Florence, Italy

Tel: 011 39 055 287 508

In Rome, all students and faculty will be in the following hotel.

Torre Rossa Park Hotel Roma

[www.torrerossaparkhotel.it](http://www.torrerossaparkhotel.it)

Via di Torre Rossa, 94

00165 Rome, Italy

Tel: 011 39 06 660 0711