

CHAMINADE University  
Bi 352 - Embryology  
Instructor N. Chee

FALL 2000  
SYLLABUS

F000  
Amy

TEXT: Carlson, Bruce M. 6th ed. Patten's Foundation of Embryology.

MANUAL: Mathews, Willis W. 5th ed. 1998. Atlas of Descriptive Embryology. MacMillan Publ. Co,

Appendix 1 of your test: Development of Chick Embryo  
from 18hrs. to 4 da. incubation.

This course introduces the student to major concepts of developmental processes of selected vertebrate and invertebrate organisms. The overview includes material from earlier descriptive studies and from some more recent experimental research of **embryological** problems.

#### AIMS OF COURSE

- (1) to gain a better understanding of the basic patterns of animal development by:
  - (a) studying normal ontogenetic development
  - (b) comparing development under experimental conditions with normal development

COURSE HOURS: There will be two lectures per week and one laboratory with several open labs in which to complete assignments and for review.

TEACHER CONSULTATION: Instructor is available immediately after class or at a time determined by mutual agreement.

MAKEUP QUIZZES, EXAMS: There will be no make-up quizzes. Under unusual circumstances, e.g., serious illness or emergency (validated) an exam may be made up.

HANDOUTS: Numerous handouts will be given to supplement your text. Such materials can and will be used in quizzes and exams.

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 Bi 352 L- Embryology Lab  
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MANUAL: Mathews, Willis W.' 5th ed. ATLAS OF DESCRIPTIVE .

Appendix EMBRYOLOGY. MacMillan  
 1 - Chick and handouts

| Week | Date  | ASSIGNMENT  | Remarks  |
|------|-------|---|--|
| 1    | 8/30  | NO LAB  |  |
|      | 9/6   | Lab #1: Chap. 2 - Gametogenesis<br>Chap. 3 - Echinoderm<br>plus: (1) cat ovary, rat testis<br>(2) Graafian follicle<br><b>Corpora</b> lutea | Ascaris<br>Echinoderm                          |
| 3    | 9/13  | Lab #2 - Chap. 6 -Avian development<br>(1) Begin Chick, Stages 1-5<br>(prestreak, 18 hr.<br>24 hr)  | Up to 5=somite<br>QUIZ #1 <b>Hdout#1</b>       |
| 4    | 9/20  | Lab #3: Stage 9-11<br>(33 hr)   | Up to 11-somite<br>QUIZ #2 Hdout #2            |
| 5    | 9/27  | Lab #4: (48 Stage 12-15<br>hr., 2 da.approx.)   | Up to 13#3 somite<br><b>Handout</b><br>QUIZ #3 |
| 6    | 10/4  | MIDTERM - up thru 48 hr (covered)   |  |
| 7    | 10/11 | Lab #6: Stage 16 to 18<br>(72 hr, approx.)  | NO QUIZ<br>Handout #4                          |
| 8    | 10/18 | Lab #7: Stage 20<br>(96 hr.approx)  | QUIZ #4  |
| 9    | 10/25 | Lab #8: Catch up -chick slides  |  |
| 10   | 11/1  | <b>Lab</b> #9: Begin Ch. 5 -Amphibian<br>Up thru gastrula   | QUIZ 5   |
| 11   | 11/8  | Lab #10: Up thru tailbud  |  |
| 12   | 11/15 | Lab #11. 6/7 mm. tadpole  |  |
| 13   | 11/22 | OPEN LAB  |  |
| 14   | 11.29 | OPEN LAB  |  |
| 15   | 12/6  | LAB FINAL - comprehensive   |  |

Tentative Lab grading schedule  
 Midterm 120 pts  
 Final 140  
 5 quizzes 50  
**10** total

A = 270  
 B = 240  
 C = 200  
 D = 150

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TENTATIVE LECTURE SCHEDULE....

TEXT: Carlson, Bruce M. 6th ed. Patten's Foundation of Embryology

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Appendix 1 of your text: Development of Chick Embryo from 18 hrs. to 4 da. incubation

| <u>Week</u>        | <u>Date</u>  | <u>Assignment</u>   | <u>Remarks</u>  |
|--------------------|--------------|---|---|
| 1                  | 8/29, 8/31   | Ch. 1 - Overview<br><b>Ch.2 - Reproductive</b> Organs                       |   |
|                    |              | Ch. 3 - Gametogenesis<br>Ch. 4 - Fertilization                              | QUIZ #1   |
| 3                  | 9/12, 9/14   | Ch. 5 - Cleavage, Blastulation<br>Ch. 6 - Gastrulation                      | QUIZ #2<br><b>TAKE HOME QUES.</b><br><b>FOR EXAM #1</b> |
| 4                  | 9/19, 9/21   | Ch. 7 - Neurulation<br>LECTURE EXAM #1 - thru Ch. 7( <b>covered</b> )       |   |
| 5                  | 9/26, 9/28   | Ch. 8 - Extraembryonic Membranes  | NO QUIZ   |
| 6                  | 10/3, 10/5   | <b>Ch.9</b> - Body Plan<br>Ch. 10 - Muscles, Skeleton                       | QUIZ #3   |
| 7                  | 10/10, 10/12 | <b>Ch.11</b> - Skin<br>Ch. 12 - Limb Development                            | QUIZ #4<br>QUES.FOR EXAM#2                              |
| 8                  | 10/17, 10/19 | Ch. 13 - Nervous System<br>LECTURE EXAM #2 - thru Ch. 13 ( <b>covered</b> ) |   |
| 9                  | 10/24, 10/26 | Ch. 14 - Neural Crest   | NO QUIZ   |
| 10                 | 10/31, 11/2  | Ch. 15 - Sense Organs   | QUIZ #5   |
| 11                 | 11/7, 11/9   | Ch. 16 - Head/Neck  | QUIZ #6   |
| 12                 | 11/14, 11/16 | Ch. 17 - Digestive/Respiratory  | QUES. FOR EX.#1   |
| 13                 | 11/21        | LECTURE EXAM #3 - thru <b>Ch.17(covered)</b>                                |   |
| THANKSGIVING BREAK |              |   |   |
| 14                 | 11/28, 11/30 | Ch. 18 - <b>Urogenital</b>  | NO QUIZ   |
| 15                 | 12/5, 12/7   | Ch. 19 - <b>Circulatory</b>   | NO QUIZ   |

FINALS WEEK BEGINNING 12/11....

You may drop one of the three lecture exams. Grades will be based on **2xlecture** exams = 200 pts., 7 quizzes = **70 pts.**, 1xfinal =140. (1/4th total bonus points added to final **score**)  
A= 360, B= 320, C=260, D= 200 pts.