

DEVELOPMENTAL CARDIOVASCULAR PHYSIOLOGY
JCV 1060H - COURSE OUTLINE
2013

Director: *Dr. C. Wittnich*
Location: *FitzGerald Bldg, rm 77*
Time: *Thursday 11:15am - 1:00pm*

- Jan 10** Orientation and Course Description (Wittnich)
- Jan 17** Prepare for Adamson journal club – work at home
- Jan 24** Overview of Maternal-Fetal Circulation – Journal Club (Adamson)
- Jan 31** Work on projects at home
- Feb 7** Genetic control heart development (Scott)
Essay Outline Due
- Feb 14** Prepare for debate 1 – work at home
- Feb 21** Development of the vasculature (Fish)
- Feb 28** **Debate #1:** Is the Newborn Heart More or Less Tolerant of Ischemia (Wittnich)
- Mar 7** Immunology/Transplantation for the Young – Journal Club (Conway)
- Mar 14** Prepare for debate 2 – work at home
- Mar 21** Congenital Heart Disease – Discussion (Hickey)
- Mar 28** Wet Lab – Path specimens congenital defects (off-site at HSC) (Hickey)
- Apr 4** **Debate #2:** Are Congenital Defects Environmental or Genetic in Origin (Wittnich)
- Apr 11** ***Oral Presentations***
- April 18** ***Essay Due***

NOTE: *Students are encouraged to attend lectures offered by above faculty and others through PSL470. For further information on this course, please go to the Department of Physiology website.*

JCV 1060H – DEVELOPMENTAL CARDIOVASCULAR PHYSIOLOGY

Marking Scheme:

- 20% - Debates
- 10% - Seminar participation and Journal Club
 - 5% - Essay outline
- 25% - Oral Presentation on Essay
- 40% - Final Essay—subject dealing with one of the lecture topics

DEBATES

There will be 2 major debates – each one focused on a different topic with protagonists and antagonists. Students will be assigned to either one view or the other for each topic and then prepare presentations summarizing their view and the literature supporting it. There will be a grade out of 20 assigned in total with 10 for the first and 10 for the second topic.

SEMINAR/JOURNAL CLUB PARTICIPATION

Students are encouraged to either attend the optional lectures or review literature to prepare for each seminar. Individual contribution to the seminars will form this component of the marking scheme.

ESSAY OUTLINE

The outline for the essay is to be no longer than 2 single spaced typed pages, 12 font and consist of enough information to assess the future content of the essay and what length will be dedicated to the various sections/components. No references are needed at this point.

This outline will be evaluated on a 1- 5 point score for each of the following:

Adherence to 2 pages (single spaced); Relevance of topic selected; Appropriateness of critical review of literature; Organization and flow of review; Usefulness of review to clarify literature in the field; Focus of outline; Originality of review; Clarity & Ease of interpretation.

ORAL PRESENTATION – ESSAY TOPIC

The presentation will be graded on a 1- 5 point scale on each of the following categories:

Verbal component: Adherence to time allotted; Grasp of field around topic; Background and rationale of subject indicated; Quality of presentation; Originality; Coherence and effectiveness of presentation; Ability to answer questions; Overall impression. **AV component:** Clarity of slides or overheads; Ease of interpretation; Use of audiovisual aids.

FINAL ESSAY

Provide a clear, concise review of the topic selected with 15 double spaced pages (not including diagrams) and 5 pages of references. Topic selected must not be your thesis work, nor can it be identical to any invited lecturers content. It should include the current state of knowledge in a logical and clear manner, a good and thorough review of the literature, and identification of areas of potential investigation. Assignments will be graded according to readability, organization, interpretation of the literature, clarity and identification of appropriate areas for future study.

The written assignment will be graded on a 1- 5 point scale on each component listed:

Adherence to review guidelines (max 15 pgs, double-spaced, 5 pgs references); Relevance of topic selected; Appropriateness of critical review of literature; Organization of review; Flow of manuscript; Usefulness of review article to clarify literature in the field; Student's grasp of field around review topic; Background and rationale of review; Quality of review and proposal; Originality of review; Clarity & Ease of interpretation.

LECTURES AVAILABLE

Graduate students are expected to attend the lectures on the topics being given by the faculty as part of the undergraduate PSL470 series if they feel it would be of help. See below for the schedule.

Location: Medical Sciences Bldg, Rm 2172, Thursday 9:00-11:00am

LECTURES AVAILABLE

- Jan 10 Intro to developmental cv physiology (Wittnich)
Maternal-fetal circulation I (maternal circulation) (Adamson)
- Jan 17 Maternal-fetal circulation II (placental circulation) (Adamson)
- Jan 24 Maternal-fetal circulation III (fetal circulation) (Adamson)
- Jan 31** ***1000-1100*** Fetal heart function (Jaeggi)
- Feb 7 Genetic control of cardiovascular development (Scott)
- Feb 14 Development of the vasculature (Fish)
- Feb 21 [Reading week](#)
- Feb 28 ***No class***
- Mar 7 Immunology of cardiac development (Conway)
Transplantation for the young (Conway)
- Mar 14 Metabolic postnatal myocardial development (wittnich)
- Mar 21 Congenital heart disease I and II (Hickey)
- Mar 28 Myocardial protection & fetal heart surgery (Hickey)
& Wet lab – pathology specimens congenital defects (Hickey)