**Subject “Chalk Talks”**

Learning to effectively communicate is an important skill for the scientist. Typically our communication is either spoken (e.g. giving a talk on a topic) or written (e.g. writing a review or research manuscript for publication). Good communicators learn by practice and experience. In this course, I want students to learn how to effectively communicate through videography. Consequently, each student will select a specific topic on development (from the list that follows) and will create a 3-5 minute video or “chalk talk” by following an organized plan. Most of this work will occur early in the semester prior to the mid-semester break. The following calendar check list is a scheduling guide and needs to be included, as well as related activities, in a separate section in the laboratory research notebook.

Information (“How To”) regarding the production of the video can be found on the Moodle course: Biomedicine Videography. Guest access is allowed for this course. On Moodle this course will NOT automatically appear on your list of courses, however you can search Moodle for the course (using the course name). Alternatively, you can access the course via the following address:

<https://moodle.emu.edu/course/view.php?id=11902>

On the Moodle Videography site you will find numerous short videos that describe the various aspects of video production.

Suggested “chalk talk” topics follow from topics in lecture or laboratory:1

1) From Chapters 1-13 in the text (early development)

* Meiotic arrest in the embryonic oocyte
* Sertolic cells and spermatogenesis
* LH role in female reproductive cycle
* Corpus luteum formation and function
* Prevention of polyspermy
* Human embryonic implantation
* Zona pellucida functions
* Sonic hedgehog signaling pathway
* Notochord formation and function
* Formation of the neural tube
* Segmentation of the spinal chord
* Somitogenesis
* Formation of chorionic villi
* Placental hormone synthesis & secretion
* Immigrant cells in the epidermis
* Hair formation
* Role of apical ectodermal ridge
* Cross-sectional organization of the developing neural tube
* Differentiation of autonomic neurons
* Metencephalon formation and development
* Ventricular system of the brain
* Sympathoadrenal lineage of the trunk neural crest
* Formation of the lens (eye)
* Cellular organization of the neural retina
* Organ of Corti

2) From Laboratory work: Porcine organogenesis

* Extraembryonic membranes
* Telencephalon
* Diencephalon
* Cranial nerve V
* Olfactory system
* Lens formation
* Otic vesicle formation & function
* Maxillary & mandibular processes
* Liver formation & function
* Mesonephros formation & function
* Cardiac formation
* Aortic arches
* Somite differentiation
* Extraembryonic blood vessels

**Calendar Check-List of Nine Major Events for Subject “Chalk Talks” in Developmental Biology**

Seq Event Due\* DateCpl Verification\*\*

1) Select specific topic & video partner(s) 9/9 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

2) Complete script with references (Word doc) 9/23 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

3) Complete storyboard and (self) evaluative rubric 9/28 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

4) Make appointments: Writing Tutor & reserve equip 9/28-9/30 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

5) Meet with Writing Tutor\*\*\* & complete shoot 9/28-10/12 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

6) Edit video 10/12-10/20 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

7) Schedule Recitation Peer Review of Video (5-8 pm) 10/21 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

8) Video revision & refinement 10/22-11/3 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

9) Submit (upload) final video (1:00 p.m.) 11/4/15 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

\*I encourage that work be completed prior to the due dates; work completed after the due dates will be penalized.

\*\*Verification may be provided by either the Recitation Instructor, the Laboratory Assistant, or the Faculty member

\*\*\*Reference with Writing Tutor BEFORE first shoot

**Calendar Check List of Six Major Events for Subject “Chalk Talks”**

**Undergraduate Students ONLY**

Maintain Copy of Check List in Laboratory Research Notebook

SeqEventDue DateCpl Verification

1) Select specific topic 9/9 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

2) Complete script & references (storyboard optional) 9/23 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

3) Make appointments: Writing Tutor & Videographer 9/28-9/30 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

4) Meet with Writing Tutor\*\*\* & Complete Shoot 9/28-10/12 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

5) Edit video (optional informal peer review) 10/12-10/20 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

6) Submit (upload) final video (1:00 p.m.) 11/4/15 \_\_\_\_\_\_\_ \_\_\_\_\_\_\_