

Course Syllabus: BIOL 4450/6450: Spring 2018

Theory and Practice of Scanning Electron Microscopy

CRN 21997 and 22019; MW 12:00 – 12:50 p.m. (BC 1202), MW 1:00 – 2:50 p.m. (BC 1075)

Instructor: Dr. Russ Goddard, BC 2090, 249-2642

email: rgoddard@valdosta.edu

Office Hours: MW: MTW: 10:30 – 11:45 a.m.

Course Catalog Description: BIOL 4450/6450, Theory and practice of scanning electron microscopy, 2-2-4. **Prerequisite:** BIOL 3200 and 3250 or consent of the instructor (for 6450: admission into the graduate program).

submission requirements will be provided separately. The final portfolio must be in working form on the computer in BC 1076 by 5:00 p.m. on **Friday, April 27, 2018**. There is a **10 point deduction** per day from the 200 point score for submissions turned in late for the first three days after the deadline. There is a **25 point deduction per day** for portfolios turned in **after 5:00 p.m. April 30, 2018**.

Basic Check-out Exam (50 pts): After their first instruction on the SEM, students are required to use the microscope only during business hours following the rules outlined during lab. It is preferred that students work in pairs or small groups for their first 8 hours of logged use on the microscope. Early independent use (no partner) may also be allowed only during the times that Dr. Goddard will mark on the sign-out sheet when he is available for emergencies. Once a student has logged eight hours of use and feels confident in their use of the microscope, you must schedule a basic check-out exam with Dr. Goddard. The requirements for this checkout are posted at the end of this syllabus. Each student will be graded on their performance using the SEM using either their own required fixed and processed samples (e.g. *Drosophila virilus*) or a sample that is provided. For the student sample, the quality of preparation will be evaluated during the check-out (e.g. dehydration followed by CPD). All basic checkouts **must be completed before the end of February 23, 2018!** Significant late penalty point deductions will be applied after this date. After passing this check-out, students can operate the SEM independently, and they may work in the laboratory (including the scope)

