**Fearfully and Wonderfully Made –** Exploring Biology from a Christian Worldview
Berean Co-op High School Biology Curriculum

*Facilitator: Ted Fenske*

**Course Overview:**
A 12-lesson course emphasizing the wonder and order of biology through the lens of a Christian worldview. Lessons focus on emphasizing God’s design in creation, highlight specific Christian pioneers of science who helped establish the scientific method and foundations, incorporate a critique of evolutionary theory, and include a hands-on interactive “lab” element.

**Class Size:** 8–12 students
**Lesson Duration:** 1 hour per session

**Lesson 1: Introduction to Biology and the Scientific Method**

* **Pioneer:** Francis Bacon, Father of Scientific Method
* **Learning Objective:** Understand biology as a study of God’s creation and explore the scientific method.
* **Opening Thought:** What does it mean to ‘take dominion’ over creation in a God-honoring way?
* **Critique:** Limitations and dangers of scientism.
* **Lab:** Formulate and test a simple hypothesis: ice melting in various liquids; plant light response

**Lesson 2: The Glory of Classification**

* **Pioneer:** Carl Linnaeus, Father of Biologic Classification
* **Learning Objective:** Understand taxonomy and classification in terms of baraminology “created kinds”
* **Opening Question:** Why would a God of order care about classification?
* **Critique:** Evolutionary tree (common design equals common ancestry) vs. Creation orchard (common design equals common Designer)
* **Lab:** Classify local plants and construct a dichotomous key for distinguishing and grouping plants.

**Lesson 3: The Cell – Building Block of Life**

* **Pioneer:** Antonie van Leeuwenhoek, Father of Microscopy
* **Learning Objective:** Discover the microscopic world God created. Review prokaryotic and eukaryotic cell structures.
* **Opening Question:** What does a single cell reveal about its Designer?
* **Critique:** Evolutionary theory vs. irreducible complexity.
* **Lab:** Light Microscope examination of prepared blood smears

**Lesson 4: DNA – The Language of Life**

* **Pioneer:** Francis Collins Human Genome Project
* **Learning Objective:** Understand the structure and function of DNA.
* **Opening Question:** Can information arise by chance?
* **Critique:** Information theory challenges to naturalistic origins.
* **Lab:** Strawberry DNA extraction experiment.

**Lesson 5: Genetics and Inheritance**

* **Pioneer:** Gregor Mendel, Father of Genetics
* **Learning Objective:** Learn inheritance patterns through Mendelian genetics.
* **Opening Thought:** How does heredity reflect God’s design?
* **Critique:** Designed variation vs. random mutation.
* **Lab:** Plant pea seeds to illustrate dominant/recessive traits.

**Lesson 6: Germ Theory and God's Provision**

* **Pioneer:** Louis Pasteur, Germ Theory
* **Learning Objective:** Understand microbes, disease, and hygiene.
* **Opening Thought:** How does germ knowledge help us love our neighbor?
* **Critique:** Refutation of spontaneous generation.
* **Lab:** Agar plates with hand print pre and post washing to grow bacteria in incubator

**Lesson 7: The Circulatory System**

* **Pioneer:** William Harvey, Human Circulation
* **Learning Objective:** Understand human heart and blood circulation.
* **Opening Thought:** How does blood reflect life in biology and Scripture?
* **Critique:** Designed system vs. accidental evolution.
* **Lab:** Plastic heart model, stethoscope self auscultation, and heart ultrasound demo.

**Lesson 8: Optics and the Eye**

* **Pioneer:** Christiaan Huygens, Physics of Optics
* **Learning Objective:** Explore eye neuroanatomy and optics.
* **Opening Question:** How does eye’ visual system design point to a Creator?
* **Critique:** The eye’s challenge to evolution
* **Lab:** Clinical eye assessment: visual fields, blind spot, pupillary response to light, accommodation, visual acuity, colour vision

**Lesson 9: The Eye Anatomy**

* **Learning Objective:** Explore eye gross anatomy
* **Opening Question:** How does eye’ visual system design point to a Creator?
* **Critique:** Rebut “poor design” argument.
* **Lab:** Cow eye dissection (2 students per eye).

**Lesson 10: Human Exceptionalism in Creation**

* **Learning Objective:** Compare humans and animals; explore image-bearing.
* **Opening Question:** What sets humans apart from animals?
* **Content:** Discuss rationality and preconditions of intelligibility.
* **Critique:** Evolutionary anthropology vs. biblical image of God.
* **Lab:** Identify common logical fallacies used in argumentation

**Lesson 11: Stewardship and Environmental Biology**

* **Learning Objective:** Explore biblical stewardship of creation.
* **Opening Thought:** What does it mean to ‘tend and keep’ the Earth?
* **Critique:** Enviromentalism vs. Biblical environmental ethics.
* **Lab:** Brainstorm applications of Reduce, reuse, recycle, repurpose

**Lesson 12: Review and Celebration of God’s Design**

* **Learning Objective:** Reflect on God's handiwork in biology.
* **Opening Thought:** How has biology led you to worship more deeply?
* **Critique:** Summarize and defend biblical worldview.
* **Lab:** Student presentations or reflection essays.