Biblical Worldview Scope for *Physics*, 4th Edition

Studying physics is more than just matter and motion. It is also about God and what He has revealed in the Bible, His Word. Physics is possible because God created a world full of matter in motion. This document is our attempt to answer (in the form of a scope) the question, "What must a student comprehend and value in order to understand physics from a biblical worldview?" What follows is a list of four themes that we believe are essential for students of physics to understand and internalize. These biblical worldview themes have been woven into PHYSICS 4th Edition in order to begin shaping in students a biblical perspective of physics.

1. Foundations of Physics

Creation. God did not create a world that is alien to Himself. His triune fingerprints saturate His creation. Because of this, through nature God's attributes are "clearly seen" by all men (Rom. 1:20). This does not merely entail "things" in the universe, but also the way that those things are to interact in the universe, matter and motion. He also put humans, who bear His image, in this world to use knowledge of matter and motion to care for the creation and love other image-bearers. The purpose of knowing physics in its depth is to give God thanks (Rom. 1:21). Therefore, the foundational structure of physics is comprehending every assumption and detail of physics with the expectation that those assumptions and details declare something about the Creator.

Fall. Satan's tempting of Eve not only centered on knowledge but also on how to attain knowledge through disobedience (Gen. 3:5). The disregarding of God's covenant, believing a lie, and making a created thing authoritative over God were all elements of the cause of the Fall. Today, secular thinkers have attempted to understand the activity of the universe through disobedience (Rom. 1:18). They begin their work in physics already disregarding the Creator, believing the lie that man is able to interpret the world before God does, and making their principles, assumptions, and observations in physics to stand in authority over God Himself. Christians can easily be drawn into one of two traps because of an intellectual struggle in physics. First, to maintain the authority of Scripture, they may dismiss observations and theories of secular physicists without a thorough evaluation of the complexities involved. Or, to appear relevant to the world, Christians may take on secular assumptions when describing scientific observations.

Redemption. Christians must learn to evaluate and formulate observations on the basis of Scripture as the ruling principle of thinking. Scripture is the ruling standard for construction of a rigorous understanding of physics. It is not enough that the Bible is able to account for physical phenomenon. In other words, interpreting reality through the lens of Scripture is merely a description of reality. It is when the Bible is trusted through the power of the Holy Spirit that those descriptions make a difference to the Christian. Therefore, not only should a Christian formulate a biblical worldview of physics, but he must also learn how that worldview engages his behavior and interaction in the world.

2. Models in Physics

Creation. God ordained the nature of human subduing and ruling the earth when He made a complex world. This "subduing" includes the ability and responsibility to understand the world God made. God made man a model-making creature for the purpose of understanding His world. God's creation is so complex and so vast that modeling is man's God-given ability to describe, analyze, and predict the activity of God's world. This kind of work is to be in obedience and thankfulness to God as man builds different models for understanding matter and motion. The incredible power of certain models in physics for understanding and using the matter in motion attests to God's intentional design of the world.

Fall. At the heart of the Fall is man's desire to be equal with God. This means that even in model making man begins with a godless narrative. Model making is necessary to solve perceived problems. What a scientist deems a problem to be solved affects the entire structure of the model he develops. Perceived problems begin with the narrative that undergirds the observations that a scientist makes. How the world began might be a perceived problem if one holds to a narrative that the world must be explained by man because man is the interpreter of the world. Model making in physics inherently involves a narrative to justify the usefulness of a model. The secular physicist will accept or create models that disregard a Creator and will not allow for biblical reality. Model making in these cases is attempting to be "objective" by assuming a purely material world.

Redemption. Part of the work of a Christian physicist is to resist being intimidated by the world and to "sanctify the Lord God in your hearts: and be ready always to give an answer . . .with meekness and fear" (I Pet. 3:15). Making a defense through model making involves three difficult activities. First, Christians must stand alone in formulating models that assume a biblical reality. Second, Christians must be able to evaluate models that were conceived in false assumptions, noting the usefulness of such models as well as the problems and limitations of those models. Lastly, in their defense of models that assume a biblical reality, they must use tactics that involve gentleness ("meekness") and reverence ("fear").

3. Environment and Physics

Creation. When God commanded man to subdue and rule over the earth, this subduing and ruling was by way of conservation, preservation, and production. This means that part of the work of physics is to develop solutions to problems without creating more or worse problems. It means that our work in physics ought to be directed toward improvement in living and access to knowledge that is focused on maintaining God's good creation responsibly and in accordance with His Word.

Fall. The secular physicist rejects God as the one to whom he ought to give thanks, and therefore, instead of subduing and ruling the world as God's image-bearer, he worships the world. The material world is his origin, purpose, and end. This worldview presses the secular physicist to treat the world not as a gift from God to be used but as that which must be served. This view does not place man at any privileged place in service to mother earth (or father universe). As Stephen Crane put it,

> **A man said to the universe:**
> **"Sir, I exist!"**
> **"However," replied the universe,**
> **"The fact has not created in me**
>
> **A sense of obligation."**

Redemption. Exercising dominion over creation in a fallen world will place two burdens upon the Christian. (1) His work in physics must consider conservation, preservation, and production in gratitude to God and for the betterment of mankind—while remaining focused on biblical dominion. And (2) the Christian must be able to exercise dominion in physics in a world that is affected by sin. This means that physics is studied and applied in a world cursed by sin in which complexities arise that require significant wisdom to address issues related to physics and the environment. For instance, a Christian must address the complexities of whether the change of the earth's climate is significant and if so in what way. This involves using models with discernment, responding to predictions, and addressing assumptions in the discussion. Formulating a biblical view of climate change, while evaluating other views, is a difficult work that requires responses that are as complex as the discussion requires.

4. Applied Ethics in Physics

Creation. Because God made the world, nothing in it—including knowledge—is neutral. The study and use of any piece of knowledge is an ethical endeavor (Prov. 1:7). Jesus said that the greatest commandment is to love the Lord with all your heart, soul, and mind. The other is like it: love your neighbor as yourself (Matt. 22:34–39). It is upon these two laws that all our ethical behavior is grounded. Even the study and use of physics affect the world in an ethical way. This means that the principles that ought to govern how we are to study and use physics rest in these

commandments. Loving one's neighbor in the study and use of physics could entail the consideration of safety for individuals and society in general, determining the purpose and use of advancements in technology, and considering the ramifications of the nature of knowledge as ethical.

Fall. A secular approach to physics has no grounding ethical principle for developing an ethical approach to physics. The reason for this lack of ethical grounding in physics is due to the assumption that knowledge is neutral. Since knowledge is viewed as a nonethical concept, there is much confusion on how physics can attain a governing ethical principle. In other words, if physicists cannot answer the question as to whether knowledge is neutral, how can they solve something as subjective as ethical problems? Without grounding ethical principles, a secular view of physics must assume its ethical principles from whatever social forces impact the individual physicists. Those social pressures, then, commit the physicist to adapting his interpretations of physics to fit with the ethical demands of society.

Redemption. The Christian faces two major barriers in maintaining a biblical ethic in conducting a study and application of physics. First, he must participate in the work of physics with assumptions that are despised in the physics community (as well as in society at large). This clash will result in the Christian's work being deemed less legitimate, scientific, verifiable, objective, and rigorous than secular scientific work. Second, because we live in a fallen world, the level of difficulty of maintaining that ethic will increase as practical applications present themselves. This course employs a tri-perspectival model of ethics to construct Christian positions on a number of ethical dilemmas related to physics. This model uses three perspectives: deontological (biblical principles), teleological (biblical outcomes), and existential (biblical motives) to equip students to develop Christian positions.