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Statement of Integration of Faith and the Engineering Discipline

by Clint Kohl

Our world belongs to God. God created all that is, time, space and matter¹ and has called man to be faithful stewards of these precious resources. From the very beginning, even before the fall, God mandated that man should rule over the earth and subdue it². Thus, God revealed the first purpose to man, and it remains to this day to be a purpose that every person should work to fulfill. Colossians 3:23 & 24 encourages :

“Whatever you do, work at it with all your heart, as working for the Lord not for men, since you know that you will receive an inheritance from the Lord as a reward. It is the Lord Christ you are serving.” NIV

These verses attest to the fact that whatever a man does for his vocation, he is to do it as if he were working for Christ himself. This gives man great purpose in whatever he chooses to do, and also a responsibility to bring glory to God through his work. Having worked in the area of semiconductors and chip processing, I have learned how silicon can be used to make helpful products. Much of the modern information age is driven by electronic circuits made from silicon. If man has begun to harness the capabilities of sand, what more can God's image bearer's discover and harness from other elements and principles God has given us? I have the opportunity to inspire and encourage my students to fulfill their God given purpose to take dominion of the creation and use it for the Glory of God.

To glorify God Christian engineers should have a Biblical world view. Modern science, like all disciplines, has a philosophical and historical background that should be understood in the context of a Biblical world view. Even the secular sociologist, R.K. Merton³ focused on Christian obligation when he said:

"Modern science owes its existence to the Christian notion of moral obligation. Since God made the world, it is not to be despised. The Christian is under obligation to study it and use it to the glory of God and the benefit of mankind."

Henry M. Morris encourages Christians to not abandon the scientific enterprise⁴:

“God's first great commission to mankind still needs to be carried out, but most Christians have abandoned the scientific enterprise to the secularists, with devastating results. The world desperately needs to return to a creationist framework of science if we are ever to "subdue the earth" to God's glory as he has commanded.”

The devastating results he refers to here is the impact of evolution and secular humanism on modern science and society. The philosophy behind “science” is often misunderstood or never explained. By coming to an understanding of the nature of

¹ Genesis 1:1

² Genesis 1:26-28

³R. K. Merton "Puritanism, Pietism and Science" Sociological Review 28(1) 28:27-68,1936

⁴Henry M. Morris "Remarkable Record of Job - Ancient Wisdom and Scientific accuracy of an amazing book"

science, students can be given a means by which to differentiate the truth from error. It is important that we understand that what a scientist brings to the table in the areas of his world view and presuppositions will largely determine any conclusions he may draw long before the evidence is examined. A Christian cannot consider that God did not create the world while an atheist cannot consider that He did. Presuppositions affect our thinking and limit the range of acceptable conclusions. In his book which popularized the notion of paradigm shifts in science Thomas Kuhn makes the following statement when referring to competing schools of scientific thought⁵:

What differentiated these various schools was not one or another failure of method - they were all "scientific" - but what we shall come to call their incommensurable ways of seeing the world and of practicing science in it. Observation and experience can and must drastically restrict the range of admissible scientific belief, else there would be no science.

Christians should come to see the world from a Biblical perspective and this perspective will filter the range of admissible belief. Christians should not be surprised when their philosophical conclusions conflict with the secularist's who share a very different world view. Although engineering is distinct from science, it does share a foundation in the sciences and mathematics. Evolutionary thought has undermined much of scientific thought. Dr. Wilder Smith makes the following comment:⁶

"In the wake of the application of the so-called scientific method, a monoculture of technical know-how has developed and is spreading rapidly around the globe. Knowing how to tackle a problem by the scientific approach is not however, the only ingredient of the present scientific monoculture. A philosophy of life accompanies this technical ability. Science studies matter and is not very good at much else. And the study of matter has led many to believe that a wholly material universe is the only reality. For them, all problems and all solutions are purely material. This Philosophy of life is known as scientific materialism."

Scientific materialism and evolutionary thought has permeated our culture and especially the sciences. Being aware of this danger is the first step in avoiding it. Paul in his letter to the Colossians encourages us to be diligent in this critical area.

Colossians 2:8

See to it that no one takes you captive through hollow and deceptive philosophy, which depends on human tradition and the basic principles of this world rather than on Christ. (NIV)⁷

If I am to protect myself from the deceptive philosophies of this world I must be in close fellowship with my Savior. When I allow God's Spirit to teach me, then I can truly be a good teacher. When my mind is "renewed", then I can help my students in

⁵Thomas Kuhn "The Structure of Scientific Revolutions"

⁶Wilder Smith, A. E. "The Creation of Life: A Cybernetic Approach to Evolution"

⁷ Colossians 2:8 NIV

their own mind renewal. Integration of faith into the classroom does not begin in the classroom but begins within the heart and mind of the teacher.

The question becomes then how can I encourage Godliness in my students? Most Cedarville College students come from Christian families and regularly attend church. Dr. G. Thomas Sharp in his book Science According to Moses - The Foundation of a Biblical World View points out a significant problem in American churches.

It is quite possible that even the most pious among us are driven by a value system that is uniquely non-Christian. It would certainly be revealing to anyone who identifies with the American church scene if they would take the time to genuinely compare their world view with the world view presented in the Holy Scripture. The shocking reality in all of this is the fact that the only ones who are fooled by their religious profession are the vast majority of the American "Christians". You see, most present day Christian advocates are impulsive, non-doctrinal, non-foundation, experiential, and generally void of Biblical discipline, resolve, and commitment.

It is imperative to encourage a uniquely Christian value system. Since students are constantly bombarded by non-Biblical values in our culture the work of building a Godly value system is a difficult one indeed. Exposure and obedience to the Word of God is the key to constructing a Biblical world view.

Cedarville College students are constantly exposed to the preaching and teaching of the word of God, but do not necessarily put it into practice. In Christ's illustration found in Matthew 7:24 of the wise man who built his house upon the rock and the foolish man who built his house on the sand, it is interesting to note that both of these men had one thing in common, hearing the word of God. What was the thing that differentiated the wise man from the foolish man? The wise man acted upon the words he heard while the foolish man did not. It is critical that our students be encouraged to act upon the word of God that is abundantly preached and taught. This can be reinforced by sharing how a chapel message has challenged me and encourage my students to contemplate how they too may act upon the message.

Furthermore it is helpful to illustrate how deeply we are affected by our culture's anti-Biblical thought. A recent example of this occurred while teaching electromagnetics. When referring to the history of electricity the author of our text wrote⁸:

Records from at least 600 B.C. show evidence of the knowledge of static electricity. The Greeks were responsible for the term "electricity", derived from their word for amber, and they spent many a leisure hour rubbing a small piece of amber on their sleeves and observing how it would then attract pieces of fluff and stuff.

After reading these sentences to my class I ask if there was anything missing from this account. I suggested to them that these statements make the Greeks and

⁸Hayt, William H. Engineering "Electromagnetics"

ancient man appear simple and less intelligent than modern man, and pointed out that this is not true. I also shared how a recent archeology discovery has found what appears to be a battery in ancient Egypt. The main point I wanted to get across was that God made man intelligent in the beginning and technology is as ancient as the first few descendants of Adam. We need to guard against evolutionary notions that man is getting better and brighter. One of the students shared a related issue how ancient man was able to condition animal tendon's for use in catapults that modern man can no longer duplicate. These tendons were much stronger per pound than steel. Encouraging such thought provoking contemplation of related subjects is just one way to demonstrate a holistic, Biblically based world view.

In conclusion, integration of Biblical truth and the engineering discipline must begin in my own heart and mind. As my mind is renewed and my world view reflects Biblical truth, I can then encourage my students to do likewise. I must live a consistent and obedient life. Dr. G. Thomas Sharp echoes this need for consistency when he writes⁹:

Any contradiction between the curricular content (what we write and speak), and our example of pure Biblical-Christian values (what we are), deposits in our students seeds of unbelief and rebellion against God the Creator. Thus eradicating the purpose for education in the first place - the perpetuation of the Biblical Christian world view! Specifically, and even more disconcerting, any disagreement that exists between what is being taught in the written curriculum either at home, school, or at church and the lifestyle behaviors of the one doing the teaching ultimately destroys the developmental intention of the written content.

It is my goal to consistently grow in my understanding of man's place in God's plan. I hope to heighten my students awareness of the enemy's attacks through society and non-Biblical world views and instill in them a desire to serve God with all their hearts.

⁹Sharp, Thomas G. "Science According to Moses - The Foundation of a Biblical World View"