

In Pursuit of a More Complete Knowledge

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The integration of Scripture and knowledge is a critical component of teaching. While some embrace this method, many ignore, or outright suppress, the Scriptural component in teaching. This is very detrimental, and leads students away from a faith in God, and toward a faith in themselves. If we are to give students access to a truly complete education, it is essential that it include building the student up in Christian faith and character to develop a strong Christian worldview. As I discuss the ways I am accomplishing this in the classroom, I will be addressing the five following areas: 1) Christian Worldview; 2) Correlation between Scripture and biology, 3) Role and commitment to Christian higher education, 4) Relationship between faith and practice as demonstrated in teaching philosophy and lifestyle, and 5) Methods and means for communicating these beliefs in the classroom.

### **1) Christian Worldview**

One good way to understand a person's spiritual position is to clearly understand their worldview. As such, I would like to articulate my worldview clearly and specifically in the areas that concern God, Creation, Man, and Epistemology.

#### **Beliefs about God and Scripture**

I fully affirm articles 1, 2, 3, 6, and 9 of the Cedarville University Doctrinal Statement (CUDS 2017), as well as the Cedarville University Doctrinal White Paper, *The Doctrine of God and Omniscience* (CUDWP, 2011). These documents are in full agreement with my belief in the one true triune God who exists in three persons – God the Father, God the Son, and God the Holy Spirit (John 1:1-4, 14; Matthew 3:16-17; II Corinthians 1:21-22). Our God is a personal God who has revealed himself through the Scriptures and desires to have a personal relationship with each person he has created (I John 4:10). God is worthy and deserving of our worship, and

will be glorified by all of creation. God has revealed himself to us in the Scriptures, which were inspired by the Holy Spirit, reliable in every detail, inerrant, and infallible (II Timothy 3:16; Matthew 5:18). It is through study of the Scriptures that we can increase in our knowledge of God, and grow in our personal relationship with him. (Psalm 86:12)

### **Beliefs about Creation**

I fully affirm article 4 of the Cedarville University Doctrinal Statement (CUDS 2017), as well as the Cedarville University Doctrinal White Paper, *The Doctrine of God and Creation* (CUDWP, 2011). The fact that God did, in six literal 24-hour days, create all that exists is of particular importance to me as a scientist. I want to take this opportunity to very clearly state that I am in agreement with the interpretation of the Genesis account as a literal, simple, 24-hour day (Genesis 2:1-2; Exodus 20:11). I see no room for evolutionary time scales, or notions of theistic evolution. I concur with Wayne Grudem, in regard to the creation of Adam and Eve, when he concludes “these texts [Genesis 2:7; 2:21-23] are so explicit that it would be very difficult for someone to hold the complete truthfulness of Scripture and still hold that human beings are the result of a long evolutionary process” (Grudem, 1994, p.265). There are serious theological implications if we allow for evolutionary time scales, or any other theories, other than what the Scriptures plainly say about creation. Indeed, we can take God at his word concerning origins (Psalm 119:89; 121:1-2)

### **Beliefs about Man and Sin**

I fully affirm articles 5, 7, 8, and 10 of the Cedarville University Doctrinal Statement (CUDS 2017), as well as the Cedarville University Doctrinal White Paper, *The Doctrine of Justification* (CUDWP, 2011). The sixth day of creation culminated in the special and complete creation of

man and woman in the form of the literal Adam and Eve (I Corinthians 15:21-22). They were created in God's own image, designed to commune with God and serve as stewards of creation. However, they sinned, and broke their relationship with God, and in the process brought down all of creation which is now bound under the curse of sin and death, resulting in all their offspring, all of mankind, to be born in sin and have a nature that strives against God. God could not, and cannot associate with sin, and from that day forward, man was cut off from God (Genesis 3). However, praise be to God, he has provided a singular way to restore our relationship, namely, through the person of his one and only Son, Jesus Christ, who came to earth as a man, lived a perfect life, and was put to death in our place (II Corinthians 5:21; John 14:6). And praise the Lord, in three days, rose again to life, conquering sin and death! Jesus now sits at the right hand of the Father (Mark 16:19), who having given us the Holy Spirit, waits for the Father to authorize the time to come again to the earth to claim his own (Matthew 24:36). After the world undergoes judgment, we will be united forever with God in a new heaven and earth that is free from sin and the curse. This is the good news of the gospel story and is of such importance that it must be proclaimed (Revelation 21:1-8)!

### **Beliefs about Epistemology**

Epistemology, as defined by Webster (2014), is the nature, sources, and limits of knowledge. Humans by nature are inquisitive creatures, and as a result, throughout history have been intrigued with the idea of acquiring, authenticating, and retaining knowledge. All knowledge claims are subjected to a set of criteria to judge whether the claims are indeed true. In the past, methods of assessment have been devised to examine the validity of truth claims. Three current methods employed to examine the truth claims of knowledge are: empiricism, idealism, and rationalism.

Empiricism, the type of reasoning employed in the study of science, is dependent on experience or empirical evidence (knowledge gathered by means of observation or experimentation). This is an “a posteriori” (from the latter) type of knowledge that is only validated once it has occurred. The second method, idealism, places high value on intrinsic reasoning, defining it as a theoretically based knowledge. This type of knowledge is in-born or instinctual and therefore needs only be discovered by the individual through an awakening of the mind. The third, rationalism, postulates that reason is the chief source and test of knowledge. Rationalism is therefore considered by some to be the rival of empiricism because it proposes reason can discover truth beyond the scope of sense perception. Thus rationalism is an “a priori” (prior to experience) insight, and it is argued that just because something can’t be seen, heard, or felt, does not mean that we cannot think about it (Blanshard, 2017).

The short coming with each of these methods of evaluating truth is that they fail to address knowledge in a fashion that is truly enlightened. As Jones (2009) points out, the problem with worldly wisdom is that it begins with man, and excludes God. It is only through an acknowledgement of God that we can even begin to acquire a picture of knowledge that is most close to accurate. Jones (2009) goes on to state, “it is a claim that by faith I assume to be true. Such faith is given to me by God via the agent of the Holy Spirit and by such faith I presuppose the claims of revealed truth in the Holy Scriptures.” Therefore, we should examine the sources of knowledge that God has given us, namely his Word and his creation; however, we must be aware of the state of our human mind. We are creatures bound under the curse of the fall of man, and therefore our thinking is subject to inaccuracies and misinterpretations. Nonetheless, we have been created in the image of God, and despite the fall, still have a unique position and responsibility among creation.

God is the author of truth, and as such, communicates only truth. He is able to communicate his truth with people in different ways. One of the most foundational and reliable sources we have available to us is the Bible, which is God-revealed knowledge categorized as special revelation. It is through this special revelation of himself that God specifically and specially speaks to us directly. It is God's Word, directly spoken to man through the power of the Holy Spirit. We can trust his Word completely; it is true without exception. However, we must be careful because, in our fallen state, we are susceptible to interpret God's Word incorrectly. How then do we most accurately interpret God's Word? It is through the Holy Spirit that the Word of God is spoken, and it is through the Holy Spirit that the heart and mind of the believer is guided in the correct paths, leading to the Word of God being accurately interpreted (Morris, 1976). But, sin can still creep in, and we must be aware of our own limitations of knowledge (Jones, 2009). Nonetheless, all Scripture is inspired and infallible, and as such can be trusted fully and completely as a true and pure source of knowledge.

There is also truth outside of this special revelation from God (truth communicated to us from God) found outside the Scriptures, known as general revelation. This truth is available to all who experience life (Romans 1:20), and in greater amounts to those who are willing and able to observe and study creation, both for the believer and the unbeliever. This is God's handiwork which we know as the physical world, of which we are a part (Ephesians 2:10). There is much truth that humans have, thus far in our existence, discovered about creation and the laws God spoke into existence. It is through our attempts to discover truth in this world of general revelation, where we must be extremely cautious to avoid human pride and errors in judgment. Most scientists who do not acknowledge God as Creator, Redeemer, and Father, do not take much time to explore the truth of special revelation that is God's spoken Word. They will

dismiss the truth of special revelation overtly and without apology, and focus instead exclusively on studying the world in their quest for truth. They are getting the two out of order! God's special revelation is in a position of complete and total authority over general revelation. As scientists who are followers of Christ, we stand on faith that we are receiving truth and revelation from the Word of God, we then use this (revelation from God's Word) as an interpretive lens for receiving general revelation. With this perspective in mind, then, we can grow in the truth revealed by God through his created world in which we physically live and interact.

Because of who God is, and the way in which he designed creation, and the fact that creation is actively being held together and sustained through the power of the Lord Jesus Christ (Colossians 1:17; Hebrews 1:2-3; Job 34), study of creation lends itself very well to an empirical approach of acquiring knowledge. Through the grace of our Creator, people who acknowledge both his presence and power, as well as those who do not, have been given the privilege of discovering truth. This is truth about God as demonstrated through the communication of his power, which is why the apostle Paul writes in Romans 1:20 that people are without excuse. They know God as he evidenced himself through the workings of his creation, and has made truth available for all to observe. Indeed these "truth observations" are made by humans, they just choose to not acknowledge God as the author. With this in mind, Christian scientists must be careful to sift through much information and accurately interpret the truth they have observed. This, in part, begins with understanding and using terminology correctly. Two words that are often misused are "science" and "nature".

Science is a term that is often misused as a synonym for truth. In our modern society, if "science" has shown something to be true, it is no longer open for debate. Science has been elevated to god-like status in our society. However, "science" is simply a fallen human's

interpretation of the observations they have cobbled together about God's creation. It is important to keep in mind that it is only by God's grace that we are able to think at all, and he is indeed the author of the truth we observe with regard to his creation. It is also important to note that just because something is observed does not mean scientists have come to the proper conclusion or interpretation of the phenomenon being observed.

Another commonly misused word in our society is "nature". Too often we, even as Christians, are susceptible to incorrect interpretation of data, and conclude incorrectly that physical life is self-sustaining. We study specific parts of creation and make observations. Plants, for example, start as a seed, they germinate and grow until they eventually produce new seed, continuing this cycle of life. As we study this process, each step can, if we are not careful to remember truths of special revelation, seem to be able to be explained by biochemical and other physical processes alone. We are then in danger of concluding that life is self-regulating, and then we are only a small step away from proposing that life is also self-originating. Since creation lends itself so well to empirical study, we erroneously assume that if we do not see physical evidence of an event, it must not exist. We see no hand of the creator in the "life cycle", and therefore he must not be directly involved on a daily basis. However, as Christians, we have the duty and privilege to think not only in terms of general revelation, but also in terms of special revelation. As pointed out in Colossians 1:17, Jesus is the architect and the continuing source of power that sustains creation. As Ashford puts it so well "God created the world and ordered it normatively by means of his word, he sustains it even today by means of his word, and he will renew it in the future by means of his word." (Ashford, 2016). We as Christian scientists should be careful to realize that just because we do not correctly identify Jesus' power scientifically does not mean he has ceased providing the power to sustain creation on a daily



basis. Later in the second chapter of Colossians, in the third verse Paul, through the power of the Holy Spirit, reveals that there is wisdom and knowledge hidden in Christ. Consequently, there is no “nature” or “natural order” apart from Christ. He is the sustainer of life. Our every breath is dependent on him holding together the creation, and without him, the creation would cease to function, and even cease to exist. We must, therefore, be careful to integrate special revelation into our study of general revelation so that we can see clearly. What we consider to be “natural” laws and rules, are so because of God’s power. God is the source of life and order, and creation functions as it does because of who God is and what he has commanded it to do.

The exciting thing to realize is that the believer can know more about the world and who God is by studying his creation through the lens of his Word (Psalm 19)! He has designed creation, life, and even our existence, in such a way that observing and learning are possible. However, for the unbeliever, it is a different story, because while they are able to learn from general revelation, they are not viewing it through the correct lens of God’s Word, and this has very negative consequences (Romans 1). Therefore, the special revelation of God’s Word serving as the lens through which we view the creation is a very necessary position if truth is the goal. In fact, as Dockery points out, Christian faith and learning go hand in hand. “The Christian faith is not an add-on to learning or something that is done in a separate sphere on the other side of the campus.” (Dockery, 2008). This then leads us forward in truth discovery, and ultimately directs us toward true worship and praise of a holy and righteous God. He is worthy in every way; he is truth. Christian scientists, then, have not only a different perspective, but also a duty and an obligation to use the abilities and gifts with which God, through his grace, has blessed them, to magnify and glorify the name of God. Christian scientists are to be good

stewards of knowledge, discovering truth, and proclaiming God's wisdom and power to their fellow man for God's glory.

## **2) Correlation between Scripture and Biology**

I find biology to be a very interesting area of study because, by necessity, this is where we must deal with the origins and genetic progression of life. Therefore, applying integration of faith, learning, and life in biology for the Christ-centered scientist must be based on the proper theological convictions. As Jones (2009) points out "My view of epistemology built upon the revealed truth of the Scriptures will necessarily inform and guide my scholarly activities within my discipline." So, whether or not it is a conscious decision, each teacher brings to the classroom some set of beliefs that shapes the knowledge set that is to be disseminated. For the student who sits under the tutelage of the secular biologist, truth discovery is significantly hindered due to the incorrect worldview clouding truth discovery.

The tools available to a scientist that aid in discovering how life functions are the same for both the Christian scientist and the secular scientist. Indeed in many cases the same conclusions are reached. However, the questions regarding the origins of life are not able to be discovered by traditional empirical scientific methods. In fact, methods of observation we employ to conduct science are not suitable to answer the questions regarding the origin of life. As Hutchison (2007) notes, "The origin of life is a specific historical event, and in matters of history, the scientific method is far better at demonstrating what could have happened than at proving what did." So, for answers to matters outside the scope of scientific methods, secular scientists are at a distinct disadvantage in terms of building a complete knowledge set of the created world. This question of "where did everything come from?" as well as the follow-up

question of “why?” are questions that can only be most completely answered through integration of the Christian worldview.

It might be argued that a scientist’s worldview affects how this question of origins is answered, and indeed it does. However, we as children of God, who also happen to be scientists, are not interested in just providing any answer to these questions about origins, but in answering the questions with God’s truth. A secular scientist may truly believe that life started by chance through “natural causes”, but that belief, no matter how strongly held, does not make it truth. God is truth. This means that as regenerate scientists, we need to seek truth above all, and in so doing, present our vocation as an act of worship and love to our Heavenly Father (Holmes, 1987). Christian biologists are therefore in a unique position to be able to answer the question of origins from a position of faith, in that we integrate faith, learning, and life in our academic pursuits (Wolterstorff, 1983). Therefore as a follower of Christ, one of my jobs is to realize that there are ideas within the field of biology that must be rejected, others that can be redeemed, and many that can be affirmed. Let’s take a look at some examples.

### **Neo-Darwinism (Reject); Six-day Creation (Affirm)**

Attributing the origins and complexity of life to random, mindless chance is something that the Christian biologist must reject entirely. Not only is it completely false historically (Genesis 1), but it actively robs God of the glory and majesty due him! It is very clear from Scripture that this is one of the roles of creation, to praise and glorify God (Psalm 8, 19, 96, and 148; Isaiah 43:20, and 55:12). God clearly and plainly states at the beginning of Scripture, in Genesis chapter 1, how everything, including life, came into existence. Not only in Genesis, which both Jesus (Mark 10:6; Luke 11:50-51) and Paul (Romans 11:36; Acts 17:28; Colossians 1:16-17) refer to as literal history, but also in passages such as John 5:45-47 where Jesus refers to

the writing of Moses as trustworthy. This then includes the retelling of the creation story by God himself (both verbally and in writing) as he gave Moses the Ten Commandments, including the pattern for the six-day work week (Exodus 20:9-11). Other references from the New Testament that support the Genesis creation account include the apostle John in Revelation 4:11, as he sees the twenty-four elders laying down their crowns at the throne of God and saying “You are worthy, our Lord and God to receive glory and honor and power, for you created all things, and by your will they were created and have their being.” The writer of Hebrews also has some things to say about God’s creative acts, one of which when he states “Now faith is being sure of what we hope for and certain of what we do not see. This is what the ancients were commended for. By faith we understand that the universe was formed at God’s command, so that what is seen was not made out of what was visible.” (Hebrews 11:1-3). These are all very clear, concise statements that should inform our thoughts concerning origins! I can feel confident that our Lord is indeed the creator and actively holds all things together (Colossians 1:17). I should, will, and do reject Neo-Darwinism (or any other account other than Genesis 1) because it is in direct contradiction with what God has revealed through the Scriptures.

### **Theistic Evolution (Reject)**

I also find untrue, the notion that God uses or has used a Neo-Darwinistic approach to advance the complexity of life to the current stage of development observed today in creation. The idea that God would use a timeline with millions of years and death as a regular occurrence before man came on the scene, presents all sorts of theological problems (White, 2016), and therefore must be rejected on this basis. In addition, Neo-Darwinistic models are not supported by what we observe scientifically in genetics. Genetically, what we observe, is a declining fitness in genetic makeup of living organisms, which is a direct effect of sin and the fall (Genesis

3:1-19). As we study genetics, we can actually observe the results of sin and death, and see the breakdown of God's once-perfect system. So, things are actually getting worse genetically, not better as Neo-Darwinists have fully committed themselves to believing.

I personally feel that many times people of faith try to mesh Scripture with Neo-Darwinism because they feel that they lack in their scientific knowledge. They assume that the scientists are conducting experiments that provide solid proof upon proof that Neo-Darwinism is scientific fact, and in their mind, since science can never be wrong, they accept Neo-Darwinism as the way "educated" people understand science and origins. This then causes the person of faith to begin compromising Genesis, and then they are on very uncertain theological ground, but many don't seem to notice. This is an excellent example of why the world needs Christ-centered universities that provide a biblically sound curriculum in all of the areas of study. That is why I am so excited to be a professor of biology at Cedarville. We can actually discuss these types of situations in class and make meaningful headway in demonstrating the supremacy of Scripture along with our specific discipline!

### **Natural Selection (Redeem)**

Natural selection is a term that is so closely associated with Neo-Darwinism, that I feel it needs to be redeemed. It has been touted as the method by which macro-evolution is possible. At its core, however, natural selection is nothing more than the survival of organisms. If they survive long enough to produce offspring, then they have been "naturally" selected. So, in essence, if you believe that organisms (life) can reproduce and not become extinct, then you believe in natural selection. Scientifically, of course, we see this all around us every day. Life continues to flourish even under tough conditions in the face of sin and the fall. Through this survival, or natural selection, we can, and do, observe genetic changes which I refer to as

adaptation. These adaptations can also be referred to as micro-evolution. However, I prefer the term adaptation because firstly this more accurately identifies what is occurring, and secondly the term evolution has taken on a meaning that is often automatically associated with Neo-Darwinism. Macro-evolution refers to large genetic changes (that we have never observed scientifically) that would make it possible for Neo-Darwinism to be a reasonable explanation (which it is not) for where we are today genetically. Micro-evolution refers to small genetic changes (or adaptations) that are built into every organism by a loving and all wise Creator who designed his creation to be able to have some means to adapt to changing environmental conditions. Again, these are small changes we typically observe within species today, and would certainly be limited to change within the “Kinds” as described in Genesis chapter 1.

### **3) Role in and commitment to higher education**

I initially began my career as a research geneticist, improving crop plants. I found my job to be very rewarding, and enjoyed learning about and depending on the laws of inheritance that God has so ingeniously established (and hidden) in his creation. However, in graduate school, I realized that I felt called to teach, but did not exactly know what that would look like. After studying several models for teaching science, I decided that I would like to return to the classroom after a period of time in the research world because of the practical research experience I could then bring with me. As a student I appreciated the experience that professors had who actually had done what they were teaching. At the time, and still today, this model made the most sense for me personally to pursue, and the Lord was gracious in allowing me to travel that path. So, after about 10 years of research, I sensed the Lord was then leading me toward teaching. However, as I began to search for positions, I became very discouraged at the lack of freedom to teach the truth, especially in the area of creation and genetics. At one point I

began to look for research jobs again because there were no good options. But the Lord was at work, I just needed to wait for his timing, and it wasn't long before I noticed an open position at a university called Cedarville. All it took was one look, and I knew I had found home; the Lord is indeed good!

How then are things to be so different here at Cedarville than they would be at a secular school? As an educator at a Christ-centered university, my role as professor is not singular (teach biology), but is two-fold. At first glance, it would seemingly appear most evident that I am in the classroom to oversee and encourage students' growth in the discipline of biology. While this is indeed important (and students are assessed in this area regularly), more importantly, as a follower of Christ, it is my duty and privilege to oversee and instruct students in their growth in, and understanding of who God is and what he has done through Jesus Christ on our behalf, and how that knowledge will change the way they see biology. Therefore, now, I am helping the students strengthen their Christian worldview, and walking through with them what biology looks like through the lens of Scripture.

Ultimately each class that is taught should have the overall goal of making the student a better thinker, and a more complete person, continually refining and strengthening a worldview that is honoring to God (Hasker, 1992). The student should gain a more complete understanding of how to bring glory to God as a result of having been in my classroom. This should change the student's perception of education too, so that the focus is not on questions like "what will I get out of this course?", but instead shift the focus to questions like "what will this course get out of me?" In other words, our students should understand how engaging in this course will move them to a higher plain of knowledge and awareness so that they might more completely, and to a greater degree, glorify and praise God for his wisdom and wonders hidden in creation.

When the professor addresses these types of questions, dissemination of truth in the classroom has the potential to greatly increase. As the professor, I must be able to rise to the challenge of conveying not only academic information from one small area of biology in creation, but knowledge as a more complete whole. As learners, we should labor to continue restoration, bit by bit, from this fallen state, seeking to ignite self-drive and determination. Student and professor should find themselves in a place where they are striving to reach, with the help of the Holy Spirit, a level of awareness above that which they currently find themselves, moving back toward that fullness of purpose for which they were created, having fellowship with the living God, and offering lives to him for his glory and honor.

As professor, I need to convey the idea that God has placed each student at Cedarville, at this precise time, for God's long-term glory, not just the time they are on campus. So, the time they are on campus they should consider education to be their Christian vocation, and as Holmes states, "education must be an act of love, of worship, of stewardship, a wholehearted response to God" (1987). Of course, education is seldom best visualized as a one way street. I also need to see my time at Cedarville as part of God's plan for my life, and not just God working in the lives of the students with whom I interact. In fact, it takes quite a lot of dedication and work to establish relationships with students that would maximize the integration of faith, learning and life. As Sorenson and colleagues (2004) point out, students need to develop a relationship of trust and respect for their professor in order for meaningful integration learning to take place. But, it doesn't end there; students are also looking for confirmation of truth in the classroom as demonstrated by their professor's personal relationship with Jesus Christ. This is discussed in further detail in the next section.



#### ***4) Relationship between faith and practice as demonstrated***

##### ***in teaching philosophy and lifestyle***

There are two major pieces of my life that will tell others who I am: my faith, and how I put my faith into practice. As students enter my classroom, they will be evaluating what I say about my faith and how I make it come alive in the classroom. Also, even if they never say it, they will be watching very closely to see if the life I live outside of the classroom, away from campus, matches up with what I say and do regarding my faith and example in the classroom. There is a lot that could be written about being a strong Christian witness to those around us. However, for the sake of this paper, I shall limit the conversation to the assigned topic of my own faith and practice in the classroom and lifestyle. How then shall I best demonstrate to my students that I am living a life that is for the Word of God and the testimony of Jesus Christ? In order to answer this question, I would like to share with the reader some selected examples from my teaching philosophy and also some thoughts regarding my lifestyle.

#### **Teaching Philosophy**

Teaching biology allows me to communicate information concerning God's creation. One of the objectives of my teaching philosophy is to have students understand the importance of biology in their lives. My particular area of focus is to do this in the areas of plant science and genetics, whether or not they plan to pursue any further studies in these particular fields or not. I feel that it is important for all biology students to understand these areas of subject matter at a functional and informed level.

One of the discussions I like to have in Genetics is to talk about human genetic disorders. It seems like every student has a friend or family member with some type of ailment. This is a

topic that can lead to rich inroads being made into the topic of integration. The secular scientific world would say that we are who we are by random combinations of our parents genes, both good and bad. Secular geneticist teach that this process is entirely and completely random with no intelligence guiding it. While it does appear on the surface that genetic recombination is the result of chromosomes migrating and recombining randomly, I do not feel that this is the case in light of God's plans for us (Psalm 139). The Christian worldview informs so much differently, and so much more fully, compared to the secular worldview in this area. In class I like to discuss the fact that we as humans are not the product of random assortments of genes, but that God has purposefully, and with great skill and attention to each detail, crafted each of us to be exactly what he has planned for us, including our genetic make-up. I talk about the beauty of Psalm 139 and how from a genetic standpoint, God is not dealing with random events that would give rise to our physical bodies, but that he has clear and exact plans for each of us. I think it is clear from this Psalm that David is saying we are put together by God exactly as God wants, down to the last gene in our physical make-up. Each person is a personal work of art that God has put together with his own hands. This sheds a whole new light on our response to physical ailments: we are made this way, but not by random accident, but by a loving God. Yes, we do live in a fallen world where disease is present, but our bodies are not made this way by accident. God is still in control and God will still do what's best for us, but it is not a random event that leads to our bodies being this way. If you have a healthy body and excel at athletics, praise the Lord; if you have a strong mind and excel at academics, praise the Lord; if you have a physical ailment and studies are challenging, praise the Lord; whatever our circumstance we are to praise the Lord!

Another objective in my teaching philosophy is to familiarize students with the scientific method. There are, of course, certain steps one must take in order to conduct reliable, trustworthy research. However, I like to caution my students to not put too much confidence in science. First, as informed by my biblical worldview, the Word of God is our ultimate authority, and if there is an apparent conflict between Scripture and science, something is wrong with the science side of it. I hope this doesn't come as a big surprise to students, but I encourage them to think about the origin of science: who has allowed us to think and observe and conclude in these ways? It is God who gives us this ability! What is science? It is the study of the created world in which we live. This brings up another important point that we discuss in class: science is not able to prove or show or conclude anything. Only a person (the scientist) can do these things. The headlines that proclaim "Science has proven..." whatever the big news is, this use of the word science is incorrect. It is the scientist, the person conducting the science that has concluded based on the evidence gathered. Nevertheless, many in this world have placed their faith in science and it has become a god to them, an idol that has taken the rightful place of our Creator God. I encourage students to recognize the value of advances in science, but to keep in perspective our place in creation and not let God be replaced. We should certainly be good stewards of our talents and abilities as they pertain to the scientific world, but keep in mind that we are studying what God has set up for us to study, and discovering what God has hidden for us to discover. So, if science is the study of God's creation, then science should never contradict God's account of creation or his Word. In class we discuss some of the bizarre statements coming from scientists. I like to remind students that science is conducted by fallen, sinful human beings, and no matter how diligently it is approached, the outcomes are not always going to be 100% reliable and trustworthy. Some scientists may even do things incorrectly on purpose

to get to the answer they want to see. So, if in opposition to God's Word, the musings of sinful, fallen men and women about what they see in creation is by no means a reason to question the authority of God's Word. In fact, we know we are in a spiritual warfare, and the enemy can blind the eyes of the unbeliever (II Corinthians 4:4) and thereby hinder them from reaching the truth. However, this does not let them off the hook, as Romans 1:19-21 makes very clear. There will be serious consequences for those who spread lies about God and his creation. But, on the other hand, we who are scientists and acknowledge Christ as Lord have been given a tremendous gift, and so should be thankful to God that he has allowed us to study his creation and find his truth and bring glory to his name.

Another objective in my teaching philosophy is to encourage students to think correctly about creation. Almost exclusively, creation is referred to as nature, and the processes that happen in nature are called natural. While these terms in and of themselves are not bad, I think it can lead to incorrect thinking about creation, and consequently, our thinking about God's role in our lives can be diminished, and he is then robbed of the glory and praise that is due him. I would like to illustrate this concept with an example from the cellular world. Currently, scientists' best estimate is that there are between 35-40 trillion cells in the human body. Each one of these cells is an active miracle in progress. Within this tiny world, there are communication and defense systems, energy production, waste removal, and repair systems, as well as vast amounts of information stored in chemical memory banks with a unique language. Within a matter of hours, most cells can replicate themselves, including all components and information. Phenomenally, the entire human genome is housed in each cell, so that each cell has all the information to build a human body and run all of its operations. The cell is just an absolute miracle that was entirely unknown until the last few hundred years. The more we study

it, the more complex we find it to be. It is not uncommon to find those who study the cell, including secular scientists, referring to it as “amazing”, “ingenious”, and even “miraculous”, rather interesting terminology to give to the product of blind random chance as they propose to be true. But of course it is completely appropriate to use these terms as we recognize God’s extreme wisdom and power which is being made evident to us (Romans 1). Not only did God create everything in the beginning, he is continuing to hold it together actively and presently (Colossians 1:17; Romans 11:36; Acts 17:28; Job 12:7-10; Hebrews 1:2-3; and Revelation 4:11). Christ is sustaining us from second to second, even physically. I often ask the genetics class, what would it do for your faith if God were to do a miracle for you right at this moment? The response is very positive and things like “it would be so great”, and “it would strengthen my faith so much” are usually repeated across the room. But each second that we are alive is indeed a miracle from God (or 40 trillion miracles to be exact!). It is usually a very eye opening time as we take time in class to consider the great and awesome power of God and his attention to detail. In fact this is a tremendous encouragement to me as well! I like to conclude class with having the students think through the fact that if God is doing all of these miracles to sustain us without us ever asking, or in most cases even knowing, is there anything that can come up in our life that he isn’t able to handle?

### **Lifestyle**

It is my goal, through the power of the Holy Spirit, to live a life that is pleasing to Christ. As I grow in Christ, I can see that my thinking is clearer and I am able to see continued personal growth in this area of God-honoring lifestyle. What happens in my classroom between the students and me is extremely important. In fact, much of this paper has been spent addressing classroom experience. However, if what I say and do in the classroom is disconnected from

what I am demonstrating in my personal lifestyle pertaining to my biblical worldview, then I would be guilty of completely missing the boat as a Christian professor. The aspect of how I express my faith and practice in my personal lifestyle will speak volumes to my students. As it turns out, students, like most other people, are more impressed with those who walk the walk, and not just talk the talk. A professor who demonstrates how integration is done by living it out is a far more effective teacher than the professor who just talks about how it should be done in lecture (Fernando & Hall, 2012). Therefore, I need to make integration a part of my personal life that is overflowing into the classroom. My personal relationship with Jesus Christ should be able to be observed and known by my students, providing them with the type of life model that I expect from them. This puts a tremendous amount of responsibility on the professor.

Also, we all know that this is not just something unique to students in the classroom. It extends far beyond the classroom in which I teach. It includes all Cedarville University students, even those who don't ever take one of my classes; they are watching what I say and what I do. Not only that, it extends to faculty, staff, administration, and visitors, even extending off campus to those in the community and surrounding areas to people who just know of me. They are all watching to see if what I profess to believe matches up to how I live out my life. If I ever doubt this, all I need do is observe what happens the next time a brother or sister falls into sin and it is brought to light in a public way. People usually have a lot to say about what the person professed and how that doesn't match their actions. What people are really asking and wondering is whether or not my faith and my practice match up. It is my goal, through Christ's grace and power, to live a life that is pleasing before God, and demonstrate to those around me that I am one who stands for the Word of God, and the Testimony of Jesus Christ.

##### **5) Method and means for communicating beliefs in classroom**

I must confess my understanding of integration and how to accomplish it have changed significantly over the course of my time at Cedarville. I think this can be attributed to a couple of major events: first, by God's grace, my walk with Christ continues to deepen (and very significantly over the last several years), and through study in his Word, and prayer and meditation, I have a more clear idea of integration, and a stronger desire to make it happen each day in the classroom; secondly, the writing of this paper and the discussion back and forth with colleagues, including the integration workshops, have been a tremendous help as I think through integration and understand more clearly what it means. There are several assignments and materials that I am using or have developed to use in order to actively incorporate integration into my courses.

Botany lab, I have found, lends itself well to discussion of "The Case for a Creator" (Strobel, 2004). This has worked well because it fosters discussion on several levels including origins, science, and worship. The assessment takes several forms including both small and large group discussion times, written response, or quiz. Overall, I like the outcome – preparing students to defend their faith. I have also been quite pleased to find that some students who originally were attracted to a theistic evolution model began to realize that Genesis can be interpreted literally, and in a couple of cases I have seen students move to a six-day understanding of creation. I find this particularly interesting because Strobel's book actually seems to take more of a theistic evolution track in terms of timescales, or at least the scientists that he interviews seem so inclined. However one of the things I make sure to bring up is the theological implications that arise when we divert from a literal interpretation of Genesis 1. This has led to some very good discussion, and based on the outcome, it seems that at least some of the students are understanding the importance of treating the entire Bible as literal truth.

Genetics students are assigned a research paper that is to be focused on examining the genetic effects of sin and the fall. It is designed to get students thinking about the fact that the rate of genetic decline that we observe in nature is not in agreement with the Neo-Darwinistic model, which proposes that species are improving and increasing in complexity genetically. This is a new assignment that I am hoping will help students see that what God has said about sin and the fall in the Scriptures can in fact be seen very clearly when we study creation. I also have them reflect on the lectures that deal with genetic diversity that we observe in creation. Students then compare and contrast the creation model with the Neo-Darwinistic model. With the creation model, students note how the increasing genetic diversity that we observe in creation today (micro-evolution, not macro-evolution; see discussion earlier in this paper) is part of God's creative handiwork, and can be traced back to creation week to the "Kinds" that God created. The Neo-Darwinistic model then has access to the same data, but incorrectly exceeds the adaptive ability of creation that we observe today to include macro-evolution. They then extrapolate back past creation week about 4 billion years too far. This exercise allows students to see that while the creation model is entirely built on the foundation of God's Word, the Neo-Darwinistic model actually has no foundation, and is supported only by humanistic notions.

Plant taxonomy (the classification of plants) presents some challenges because the field is based entirely on a Neo-Darwinistic model of common ancestry. Every textbook is filled with phylogenetic trees that would seem to indicate there is no question that all of life is related and originates from one common ancestor. One of the things I have students do in this class is to develop a chart that shows relationships between species, but takes them back only to the grouping of "Kinds" based on the account in Genesis 1. This allows the student to understand that God has an active, continuing role in creation, even as time progresses.



Botany class is assigned a research paper that is focused on the current status of genetically modified crops. This assignment is designed to get them to think about what it means to be a responsible steward of the genetic information that God has given us. Questions like “Just because we have the ability to alter something genetically, should we?” “What does it mean to produce healthy food?”; “What is the role of biotechnology in addressing world hunger?”; and “What sorts of genetic advances would most honor God?” are what the students wrestle through as they explore the world of bio-tech. I guide and then evaluate students on how well their ideas about science, technology, and ethics are grounded in Scripture. This exercise is designed to develop and strengthen their Christian worldview, particularly as it pertains to current scientific issues.

In addition to the above specifically mentioned assignments, lecture time in each of my courses is a way that I can very regularly talk about how a biblical worldview informs our thoughts on the lecture topic of the day. It is very encouraging to see that as students get familiar with this format, they also begin to think in terms of how their biblical worldview affects what they are hearing in lecture and reading in the textbook. It is one of my goals to have them move this awareness from the classroom to their daily lives as they interact with news media, research articles, friends, and family. This should encourage them to think about how their biblical worldview affects how they receive, process, and give information.

It is essential to make a conscious effort to incorporate aspects of my own personal spiritual journey, along with academic material into my courses. This allows the student to see more of the complete knowledge picture that is at the heart of a true education. I should view my role as facilitator as I encourage each student to grow and develop a more complete, accurate, God-honoring worldview. It is crucially important for the professor to have the proper personal

relationship with God, coupled with the correct personal approach to teaching academically in order to motivate students to seek God's truth, and ultimately bring glory to the Creator.

In conclusion, it is critically important for a Christian professor to consider integration of Scripture and knowledge in the classroom in light of these five areas: 1) Christian Worldview; 2) Correlation between Scripture and biology, 3) Role and commitment to Christian higher education, 4) Relationship between faith and practice as demonstrated in teaching philosophy and lifestyle, and 5) Methods and means for communicating these beliefs in the classroom. Ultimately, it is a gift from God to be able to think and teach in a manner that increases his kingdom and brings glory to his name.

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