

We, the undersigned, are the members of the Biology Program at the University of Jamestown. We teach in all areas of biology. Evolution is foundational to an understanding of biology and is incorporated into every class taught at UJ. Intelligent design is not science and misrepresents the scientific enterprise and evolutionary biology. Senate Bill 2355 will do serious harm to the education of North Dakota students and should be rejected.

Almost every major scientific and educational organization supports the teaching of evolution in the classroom (<https://ncse.ngo/voices-evolution-0>). This is because evolution is necessary to understand biology. Scientists do not accept evolution out of bias or ideology. Scientists are practical. They use whatever theory works. Evolution is accepted because it is useful in understanding all areas of biology. It explains the patterns we see, leads to predictions and new avenues of research, and makes connections between fields. It would be impossible to teach most biology classes without incorporating evolution.

In contrast, Intelligent design has not been supported by any major scientific or educational organizations. Again, this is not because of ideology, but because it is not useful. Intelligent Design has failed to produce a single useful insight in decades of trying. If it was useful, scientists would accept it. More fundamentally, Intelligent design is rejected because it is not science. Science depends on making testable, tentative claims about the empirical world. Intelligent design is not testable, nor is it tentative. Several courts have considered the question of whether Intelligent design or creationism is science, and all that have addressed the question have concluded they are not science (*Kitzmiller v. Dover*, *McLean v. Arkansas*, *Edwards v. Aguillard*).

This bill calls for the teaching of intelligent design in classrooms. However, Intelligent design is not a scientific theory; there is no theory to teach. Intelligent design is not a science with a research program or empirical results to analyze, but instead is simply a group of criticisms of evolutionary theory. All of these criticisms have been considered by the scientific community and have been found to be invalid. Most importantly for the students of North Dakota, these criticisms depend on misrepresenting evolutionary theory, and then attacking that straw-man version of evolution. Intelligent design concepts such as irreducible complexity or complex specified information fundamentally misrepresent evolution, ignoring evolutionary principles such as exaptation or the production of novelty by gene duplication and selection. Teaching intelligent design can only mean mis-teaching evolutionary theory, and propagating misunderstandings of evolution. These misunderstandings will impair the further education of North Dakota students.

Likewise, teaching Intelligent design does not promote critical thinking. An understanding of science requires teaching how we evaluate evidence and how scientific theories are supported. Intelligent design misrepresents this process, just as it misrepresents evolutionary theory. The court in *Kitzmiller v. Dover* found the claim that ID promotes critical thinking was disingenuous: “The goal of [ID] is not to encourage critical thought, but to foment a revolution which would supplant evolutionary theory with ID.”

There is only one reason for this bill—to promote a particular religious viewpoint, masquerading as science. It is an error to believe that evolution necessarily conflicts with religious views. Many religions hold that evolution is compatible with their doctrine. For example, the last three Popes have all asserted that evolution is compatible with Catholic doctrine, as have many Protestant denominations and other religions. Of course, there are also some Christian groups that have asserted there is a conflict with evolution. The public-school classroom is not the place to resolve theological questions. These questions can be pursued outside of the public schools,

but it does a disservice to our students to do so in the science classroom and to blur the distinction between science and religion. One of the plaintiffs in *Kitzmiller v Dover*, Julie Smith, recounted how the school's intelligent design policy had caused her daughter to believe that she could not be a Christian and believe in evolution. The school made her daughter question her own mother's faith, because the mother accepted evolution.

The claim that, unlike other forms of creationism, intelligent design is not a religious doctrine was thoroughly refuted in the *Kitzmiller v. Dover* trial. Judge Jones ruled that "ID...cannot uncouple itself from its creationist and thus religious antecedents." The overwhelming evidence at trial established that ID is a religious view, a mere re-labeling of creationism, and not a scientific theory

It is sometimes suggested that we should teach Intelligent design out of fairness, to teach both sides, as if there are exactly two sides. Even amongst opponents of evolution, there are many versions of creationism— intelligent design, young earth creationism, old earth creationism, day age creationism, and many others. Which of these should we teach? Why? When these groups disagree with each other, they do not invoke scientific evidence, but instead discuss how to interpret scripture (see for example <https://answersingenesis.org/creationism/old-earth/>). This again shows that teaching intelligent design, or any other version of creationism, is imposing one theology on the students and deciding which religious interpretation is correct. The science classroom is not the place to take a stand on Biblical exegesis.

Senate Bill 2355 would do serious harm to science education in North Dakota. It misrepresents both evolutionary theory and the scientific enterprise. North Dakota students would not be prepared to further their education beyond high school, nor would they understand what characterizes science in their lives. It is an unconstitutional imposition of one particular religious doctrine masquerading as science.

Dr. Bruce Jensen, Professor of Biology
Dr. Jessie Arneson, Assistant Professor of Biology
Dr. Elizabeth Naglak, Professor of Biology
Dr. Michelle Solensky, Professor of Biology