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Keith D. Stroyan*, University of Iowa. *Small opportunities at a big university.*

There are many disadvantages teaching elementary courses at our university. Classes are large and students' backgrounds and goals are varied. Since our small state has only 3 public universities, it is important that we serve students with a spectrum of backgrounds, abilities, and goals even when "service" courses don't carry the most prestige in the profession.

Our size also presents us with great teaching opportunities in meeting the needs of our diverse student body. Small liberal arts colleges often have a "community of learning" that aids learning in many ways. We can create some of this spirit in groups of our students selected on their interests.

Highly selective schools have more uniform ability but our size lets us offer many advanced courses and our most capable students can take advantage of that. I have had a 40 year old who sat with an 11 year old in my sophomore-level course; I have had freshmen in graduate differential geometry. I have also had many wonderful students in the full spectrum of our courses.

An important part of my teaching is to nurture good teaching in our graduate TAs.

My talk will describe how these opportunities play a role in our new calculus 2 course, Engineering Math 2. (Received August 29, 2005)