

INTRODUCTION TO EARTH SCIENCE

Professor: Marc Defant, Ph.D.

Hello, welcome to earth science. My name's Mark DeFant, I'm a vulcanologist by training, I study volcanoes, not Vulcans. And I also am a geochemist. Now the reason I mention that is because studying volcanoes around the world, I've had the opportunity to take pictures, slides, of many, many geological processes and spectacular events, which I hope to share with you during the course.

Basically, we're going to start out much the same way that a beginning geology course starts out. That is cover the same kinds of material. For example, we're going to talk about earthquakes, we're going to talk about rocks and minerals, volcanoes, of course. And I'm going to get into plate tectonics, the motion of plates, the interior of the Earth. We're going to want to talk about things like hydrogeology and ground water. We'll also get into glaciation, and deserts, and generally the things that geologists learn.

But then in the later part of the course, we're going to cover things like oceanography-- talk about currents in the ocean. And then get into the atmosphere and climate, the temperature of the earth, global warming. Also the atmospheric currents.

So we'll be covering a broad spectrum, but I haven't mentioned that being a geologist means that you actually get out and you get to put your hands on rocks, and look at the process, and try to understand those processes that have taken place through geologic time. So really to get students involved, the best way to do it would be to take you all out on a field trip. But with the this many students, it's hard to get you out in the field.

So what's next best thing? Well we have some virtual field trips, which will hopefully give you the next best thing to getting into the field. And that is seeing these rocks in the field. I'll also add my own slides from time to time to show you what these processes look like, so that I hope you get a feeling of what it's like to be a geologist, and what geologists do, how we understand the earth, and how we can put together and piece together the entire history of the planet.

I think it's a very exciting process. And if you get the sense of what it's like to be in the field, who knows? Maybe you'll go on vacations and start looking at the rocks more.

I want to emphasize that your time and your needs are important to me. And so I want you to be able to come to me anytime you want. Now the problem is that it's an online course, but that doesn't mean that I'm not going to be there when you need me. So send me an email, or contact me in some way, and we'll set up either-- I'll respond by email, or I'll respond by instant messaging, if you want to get on instant messaging. Or we can even have a conference call, where I talk to you.

But it's very, very important to me that you understand that I'm here to help explain anything that you're confused about. And I'll try not to get into massive amounts of detail in each section, so that

you'll get a rather broad-based idea, when you leave this course, of what the earth is all about, and what earth science is all about. I'm excited. I think you're going to enjoy it.