

**TITLE: GIS Programming**

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**PREREQUISITES: Basic ArcGIS experience**

**LOCATION: Distance Delivery from Fairbanks campus**

**MEETING TIME: Spring Semester 2017**

**INSTRUCTOR: Dr. David Verbyla**

**OFFICE LOCATION: ONEILL 368**

**OFFICE HOURS: Tues Weds 1-2pm, Thur 11:30-12:30 face to face, Google Hangout, or phone/email**

**or email any**

## **COURSE GOALS**

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## **INSTRUCTIONAL METHODS**

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Each week will be a series of video sessions with each session leading the student in a hands-on Python scripting exercise. The student must successfully answer a blackboard question after each video session in order to access the next video session.

## **COURSE SCHEDULE**

**Week1: Python basics**

**Week2: Using the ArcGIS field calculator with Python scripts**

**Week 3: Getting GIS point, line, polygon, and table information**

**Week 4: Creating GIS tables and point,multipoint, polyline, polygon feature classes**

**Week 5: Updating and querying GIS tables and feature classes**

**Week 6: Creating random locations and random selections**

**Week 7: Arcpy Feature Class Geoprocessing**

**Week 8: Arcpy Raster Geoprocessing**

**Week 9: Working with Arcmap Map Documents**

**Week 10: Basic ArcGIS Python Script Tools**

**Week 11: Advanced ArcGIS Python Script Tools**

**Week 12: ArcGIS Python Toolbox**

**Week 13: ArcGIS Python Addins**

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## **COURSE POLICIES**

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### **Participation**

You will use ArcGIS and follow along as I teach you new concepts in each video session. After each video session, I will assess your understanding using a question posted through the class blackboard website. Your understanding will also be assessed using a weekly quiz posted through the class blackboard website.

You should post any sources of confusion and solutions through the class Google+ site to share learning among class participants.

### **Late Work Policy**

Late work will not be accepted, since some weekly sessions assume you have mastered previous weekly sessions.

### **Academic Integrity**

As described by UAF, scholastic dishonesty constitutes a violation of the university rules and regulations and is punishable according to the procedures outlined by UAF.

Scholastic dishonesty includes, but is not limited to, cheating on an exam, plagiarism, and collusion. Cheating includes providing answers to or taking answers from another

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## **EVALUATION POLICIES**

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Course grade will be based on total points earned based on weekly scripting assignments (@10 points each

## **SUPPORT SERVICES**

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**UAF eLearning Student Services** helps students with registration and course schedules, provides information about lessons and student records, assists with the examination process,