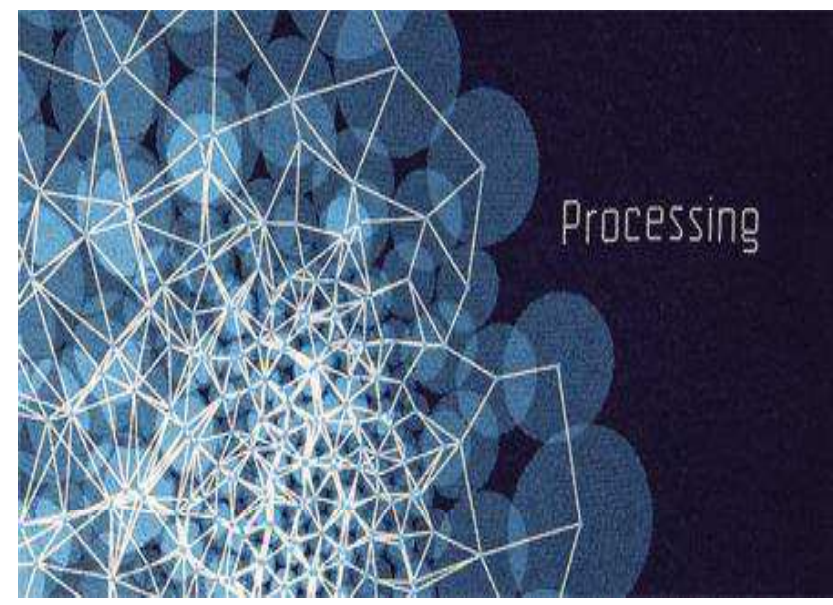## CAMP STAFF

Tom Stokke

Tom teaches a variety of computer science classes at the University of North Dakota. His research interests include computer science education and educational computing. Tom's hobbies include playing, coaching and refereeing volleyball. Tom also enjoys spending time with his wife, Angie, and his three young children: Nick, Erik and Elle.

Nancy Rice

Nancy is the department's office manager who helps with the "behind the scene" tasks. She handles purchasing and tracks the camp finances. Nancy enjoys watching the camps come together and helping make them a success.

Camp staff will also include graduate and undergraduate students from the UND Computer Science department. They have been selected because of their interest in computer science education.

Processing Introduction to Programming Camp

June 17-21, 2013

9 am - 4 pm

UND AEROSPACE COMPUTER SCIENCE
UNIVERSITY OF NORTH DAKOTA

Streibel Hall Room 201
3950 Campus Road Stop 9015
Grand Forks, ND 58202-9015
Phone: 701.777.4107

UND AEROSPACE COMPUTER SCIENCE
UNIVERSITY OF NORTH DAKOTA

http://camps.cs.und.edu

Parent/Guardian Name:

Address:

City, State, Zip:

Home Phone: _____ Cell: _____

E-mail Address:

Camper's Name:

Age: _____ Grade: _____

T-shirt Size O Adult S M L XL
              o Child S M L XL
(Sizes NOT exchangeable)

Camps:

O – Processing programming camp - June 17-21 - 9 am-4 pm ($160)

We cannot guarantee a t-shirt for registrations received less than two weeks prior to the start of camp.

To register using a credit card, go to www.summer.und.edu

To register with a check payable to UND, complete this registration form and mail to:
**Summer Programs & Events Office
Attn: Processing Camp
3264 Campus Road Stop 9021
Grand Forks, ND 58202-9021**

Processing is an open source programming language and environment used to create images, animations, and interactive programs. Processing is an ideal programming language for an introduction to traditional text-based programming. It was initially created as a tool for non-programmers to create visual and artistic works without needing a mathematics background (although that never hurts!). Processing is highly interactive, allowing the students to get immediate visual feedback from their programs. This encourages the students to experiment and to try things out just to see what happens. Processing also allows for a more systematic approach to programming when it's time to organize and structure those skills learned from "just playing around."
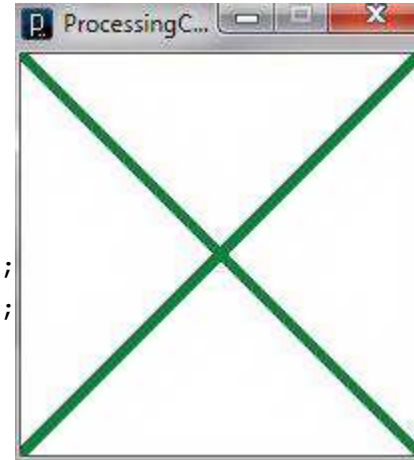
Processing is based upon Java, so skills learned here will be immediately transferable to working in other languages. The Processing program is an environment with a simple editor for typing in the programs, as well as buttons to launch the programs, making it easy to go from programing to testing and back again. Processing is open source, so it is free to download for any current operating system. Processing is also expandable, with an active community of experts and beginners, so there is always a place to share experiences, to look for help, or to offer assistance to others. Processing currently has hundreds of additional libraries available, so as the students programming skills increase, Processing can be extended as well.

As part of the camp, each child will receive a t-shirt, a certificate of completion, a CD containing the most current version of the Processing program, and numerous tutorial files to use at home.

For more information about the Processing program to go http://www.processing.org.

Processing lets the student start creating images with programs such as:

```
size (200, 200);
background (255);
stroke (0, 128, 0);
strokeWeight (5);
line (0, 0, 199, 199);
line (0, 199, 199, 0);
```


The students will then work toward learning to create images similar to that on the front of this flyer.

At the heart of Processing is a text-based programming language. Almost all of the work done in the camp will be to create graphics images. While we are teaching the students how to access the commands for the graphics, we will also introduce the basic concepts of computer programing. Some of the programming topics that will be addressed include:
- Color and screen orientation
- Working with numeric data
- Decision making and repetition
- Creating interactive programs using the keyboard and mouse

For questions about the camp contact:
Tom Stokke • 701-777-3337
tstokke@cs.und.edu

For questions about registration contact:
Brenda Dufault • 701-777-0841
brenda.dufault@email.und.edu

Cancellation and refund policy
To cancel your camp registration, please submit a written or faxed notification to UND Summer Events, 701-777-4282 or email brenda.dufault@email@und.edu
We reserve the right to cancel a camp due to low enrollment numbers.

Refund policy:
- Three weeks prior to start of the camp : 100%
- Two weeks prior to start of the camp: 50%
- No refunds will be issued one week prior to the start of the camp
- No refunds will be made due to behavior issues
- The registration fee will not be pro-rated if the camper leaves early for any reason

This camp is geared for children ages 13 - 18. While there are no requirements for this camp, please understand that this is an introduction to text-based programming with the intent of developing problem-solving and critial-thinking skills.

Morning and afternoon snacks will be provided, however campers will need to bring their own lunch. Supervision will be provided during the lunch hour. Please contact us if other arrangements need to be made.

Scholarships
A limited number of need-based scholarships are available. Please call Tom Stokke for more information, 777-3337.

To register using a credit card, go to www.summer.und.edu
To register with a check payable to UND, complete the following registration form and mail to:
Summer Programs & Events Office
Attn: Alice Camp
3264 Campus Road Stop 9021